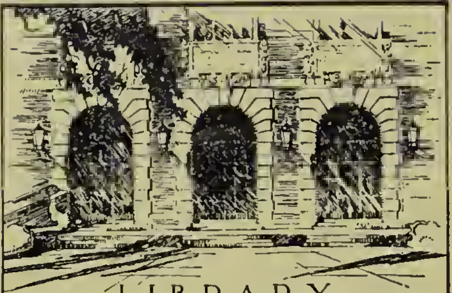

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THE HARVEIAN ORATION

DELIVERED BEFORE

THE ROYAL COLLEGE OF PHYSICIANS,

On Saturday, June 27th, 1874.

By CHARLES WEST, M.D.,
Fellow of the Royal College of Physicians.

MR. PRESIDENT AND FELLOWS OF THE COLLEGE OF PHYSICIANS,—Few things are more difficult than to preserve alive for many years the spirit of an anniversary celebration. The memory of even a national deliverance grows faint; the horrors of war, the contest with the oppressor, are alike forgotten; a long peace effaces the recollection of the struggle to attain it, and of the hero by whom it was won.

But still more quickly fades the remembrance of private benefactors. How quickly we all have realised who in one of our cathedrals, or of our college chapels, have listened on some Sunday or festival day to the bidding prayer, and have heard mentioned with thanks to Almighty God the names of men and women gone ages since to their last home, of whom all we know, and almost all that we can learn is, that "they rest from their labours and their works do follow them".

There is, however, something peculiar and indifferent from most in this celebration. It was instituted by the very man whom we commemorate: instituted not for his own glory, but "to make mention of the benefactors of this College, and to encourage its members to search out the secrets of nature by way of experiment".[*] A compendious theme this, and one making large demands upon the head and heart of him who would aspire to treat it.

When your commands, Sir, were first laid upon me to undertake this most honourable, most arduous office, I studied, as a preparation for its accomplishment, all the Harveian Orations that I could meet with. But the study yielded me scant comfort. I found that the first Harveian orator had incurred grave displeasure for having indulged in unseemly criticisms on the control of the army, and the government of the country, at a time when Oliver Cromwell was Lord Protector.[†] There was much need, doubtless, that the performance of so indiscreet a person should be submitted to the censors for revision,[‡] and a rule was then adopted that thereafter no Oration should be given in public unless at least a month beforehand it had been submitted to and approved by the President and Censors.

I do not know how long it is since this rule was allowed to fall into disuse. Its existence, however, proves how responsible a post that was felt to be which I now have the honour to occupy, and I could wish, for my own sake, that instead of having simply to throw myself on the indulgence of my hearers, I could plead that my poor attempt to do justice to my theme had already been submitted to the President and Censors, and had been stamped by their authority as fit to pass current.

I said, Sir, that I have looked with care at almost all the Orations which have been given on this occasion. Need I add that I have not done so with the idle and unworthy purpose of decking out my work with the genius, or the learning, or the grace of my predecessors, for the unhandy patchwork would at once be discovered; and when Meade, and Arbuthnot and Akenside; and in more recent days, Latham, and Hawkins and Rolleston, had reclaimed their own, I should stand before you like the painted daw in the fable. I sought in the Orations, and especially in the earlier ones, for something that might have enabled me to set the man Harvey before you, "in his habit as he lived"; for while but few are gifted with any measure of his deep insight, or can follow even at a distance the track of his genius, it would profit all of us to learn the lesson of his patriotism, his loyalty, his open-handed bounty, his forgiveness of injury and detraction, his deep religious feeling.

But my search has yielded little fruit, partly, I suppose, from Harvey's own character. The man who needed the cannon-shot at Edge Hill[*] to arouse him from his studies and to make him remove for the sake of the princes committed to his care to a safer place, lived too entirely in his own pursuits to take much heed of life beyond them. It was with him much as it has been with many of our greatest artists, to whom the external world was but suggestive of the inner world in which they lived; to whom it appeared, not as it shows itself to others, but as it was translatable into their own language, or as they could clothe it in their own expression. Harvey had travelled much, and the few descriptive touches that we meet with in his writings are most picturesque and lifelike; but they are brought forward merely to illustrate some point in his scientific researches. His account of the Bass Rock[†] and of the countless birds that inhabit it, "more numerous than the stars that appear on the unclouded moonless sky", is so true to nature that it at once recalls to all who were so fortunate as to see it in Graham's picture in the exhibition of our Royal Academy three years ago. And yet this minuteness of observation, this beauty of description, are but subordinate to a detail of the process by which the hard shell is formed round the egg. And so, a few paragraphs further on, we find ourselves on the tiptoe of expectation when we come to a sentence which begins, "When I was at Venice in former years"; but as we read on, in hopes to find some record of the impression left on Harvey's mind by that wonderful city, it turns out that the place is mentioned merely because it was there that Aromatari,[‡] a learned physician, showed him a specimen of unusually exuberant vegetable growth as illustrative of the influence of soft air, mild climate, and bright sky on the development of plants.

Harvey's whole mind, almost his whole heart, seem to have been devoted to his favourite pursuits. He did not care for wealth, he did not care for fame; married, but childless, his first affections seem to have been set on the places where he had studied or had taught. Aubrey tells us (I am not quite sure whether correctly) that, in spite of his brother's entreaties, he persisted in giving the stone house where he and all his brothers were born to Caius College, Cambridge. His diploma of Doctor of Medicine of Padua, his earliest trophy, found its way, I know not how, to the King's School at Canterbury, which he entered as a child of ten, and left as a lad of fifteen;[§] and he bequeathed to the College of Physicians such purely personal memorials as my "best Persian long carpet and my blue satin embroidered cushion".[||]

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[*] The very words of Harvey in the deed by which he provides for this oration are worth quotation, so well do they express the genial, loving character of the man. After ordering a general feast to be kept within the College once every year for such Fellows as shall please to come, he adds: "And on the day when such feast shall be kept, some one person (member of the said College), to be from time to time appointed by the President, shall make an oration publicly in the said College, wherein shall be a commemoration of all the benefactors of the said College by name, and what in particular they have done for the benefit of the College; with an exhortation to others to imitate those benefactors, and to contribute their endeavours for the advancement of the Society according to the example of those benefactors, and with an exhortation to the Fellows and Members of the said College to search and study out the secrets of Nature by way of experiment, and also for the honour of the profession to continue mutual love and affection amongst themselves, without which neither the dignity of the College can be preserved, nor yet particular men receive the benefit of their admission into the College which they might expect; ever remembering that *concordiâ res parvæ crescunt, discordiâ magnæ dilabuntur*." I am indebted for this extract from the deed to my kind friend and master Dr. Farre, the treasurer of the College.

[†] "Quod acrius quam decuit in rem militarem declamasset; adeoque præsens Reipublicæ regimen collutulatum esset.—College Annals, as quoted by Dr. Munk in *Roll of Royal College of Physicians*, vol. i, p. 226.

[‡] "Ut eadem denuo perlustraretur."

[*] This, and many other familiar traits in Harvey's life, we owe to Aubrey. (*Letters by Eminent Persons, and Lives of Eminent Men*, vol. ii, part ii, 8vo, London, 1813; *Life of Dr. W. Harvey*, pp. 376-386.)

[†] *Harvæi Opera*, College edition, 4to, 1766, p. 221; and Willis's translation for Sydenham Society, 8vo, London, 1847, p. 208.

[‡] *Opera*, p. 224; Willis, p. 211. Aromatari was a contemporary of Harvey, and, like him, a graduate of Padua, and practised with great distinction at Venice. See his life in *Biographie Médicale*, 8vo, Paris, 1820.

[§] This diploma was afterwards presented to the College of Physicians, in whose archives it is preserved, by Dr. Osmond Beauvoir, head-master of the King's School, Canterbury, through Sir W. Browne, President of the College, in 1764, as is set forth in a Latin memorandum by Sir W. Browne himself, written inside the cover of the diploma.

[||] See copy of Will in Willis's *Harvey*, p. lxxxix.

For the last twenty years of his life Harvey had no settled home of his own, but lived about at his brother Eliab's houses, either in town or country; and the gossip Aubrey, a sort of seventeenth century Boswell (but wanting Boswell's reverence for what was higher and nobler than himself), tells us how Harvey "sat for hours on the leads of Cockaine House, where he was used to contemplate; or at Coombe, in Surrey, where he had caves made in the earth in which in summer he delighted to meditate".

> "His heart and brain moved there, his feet staid here."

They stayed with all love and kindness, and moved up and down the paths of this work-a-day world as if they were quite unused to higher regions. Harvey seems, indeed, to have cared much for home friendships—for the love of his brothers, sisters, nephews, and nieces, to all of whom he bequeathed some remembrance, thoughtfully selected according to what would be of most service or give most pleasure. But nothing in his will is so touching as his reference to a certain Will. Foulkes, whether related to him or not does not appear, who seems to have been a feeble-witted person, and under the care of one of Harvey's nieces. He left to her "all the linen, household stuff, and furniture at Coome, near Croydon, for the use of Will. Foulkes". Further on he assigns a stated yearly sum towards his maintenance; and then, in the last sentence, as if he feared lest something, in spite of all his care, might yet befall one so helpless, he provides for his custody in the event of the death of his niece Mary Pratt. This is the substance of his will; but there are bequests to the poor of Folkestone, to the poor of Christ's Hospital, to the poor children of his cousin; and then, "one hundred pounds among other my poorest kindred, to be distributed at the appointment of my executors". Then there come in touches of kind remembrance of old friends. "My little silver instruments of surgery to Dr. Scarborough, and my velvet gown. Five pounds to my loving friend Dr. Ent, to buy him a ring to keep or wear in remembrance of me"; and, in a codicil, he adds, "ten pounds to my good friend Mr. Thos. Hobbes, to buy something to keep in remembrance of me". It is strange to find evidence of close intimacy between two men so widely different as William Harvey and Thomas Hobbes. I dare say their common acquaintance with Bacon brought them in contact, and Harvey's genial temper would attach him to a man who "was well-beloved for his pleasant facetiousness and suavity".*

One matter Harvey refers to in his will which might excusably enough have moved him to complaint: his library plundered, his manuscripts destroyed a few years before by the Parliamentary soldiers when they rifled his lodging at Whitehall. But he only desires his loving friends, Dr. Scarborough and Dr. Ent, "to look over those scattered remains of my poor library, and whatever books, papers, or rare collections they shall think fit to present to the College, and the rest to be sold, and with the money buy better". To his published writings he makes no reference; no word occurs about his discoveries, no thought seems given to his fame, nor care expressed for its preservation, for he begins his will, "Imprimis. I do most humbly render my soul to him that gave it, and to my blessed Lord and Saviour Christ Jesus"; and beside that where is the room for thought of earthly fame?

Little that is authentic can be added to this sketch of Harvey by his own hand. Of his outward form, the portrait and the bust which we possess in this College give, no doubt, a correct resemblance. I doubt, however, whether the grave anxious expression which they convey was by any means habitual to him. Still, with their help, we may, perhaps, set before us the little dark-complexioned man, with keen black eyes and curling hair, which age changed from black to snowy white; rapid in utterance, hasty in manner, choleric in his younger days, and used then, in discourse with anyone, to play unconsciously with the handle of a small dagger which he wore.†

For the rest, unwearied in his pursuit of knowledge, most rapid in its acquisition, so that his diploma of Doctor of Medicine, which he obtained at Padua at the early age of twenty-four, is not worded in the common language of those documents, laudatory, of course, though they always are, but well nigh exhausts the Latin language of its superlatives, and speaks of how all listened with intensest pleasure to his clear and most appropriate answers, and how most astonishingly and most excellently—"mirifice et excellentissime"—he had borne himself.

The knowledge thus attained he was always as ready to impart as he was eager to increase; while nothing tried him half so much as the loss of time spent in defending his discoveries or in answering captious critics, to whom he yet was always ready to give credit for candour and a love of truth like his own. He seems to have found his chief relaxation when alone in Virgil, whose mediæval character—half wizard, half dim unconscious prophet of a coming Christianity—lasted down almost to modern times. "He has a devil", Harvey was more than once heard to say, as he flung the book from him to the other side of the room, and turned again to the researches from which the poet and enchanter had wiled him too long away. But, in spite of all that science on the one hand, or imagination on the other, could do to occupy his mind and fill his heart, his sympathy and love for his fellow-men were ever keen and ever active. He instituted a quarterly meeting of the Fellows of this College, who were then to dine together, and thus to maintain brotherly love towards each other; and the year before his death, when he presented to the College the title-deeds of the estate which we still possess, he entertained all the Fellows at a banquet, while one of the objects specially set forth in the deed by which he founded this our anniversary was the exhortation which it is my duty to-day to make to all of you, my colleagues, that "we should continue mutual love and affection among ourselves".

Such was the man, such were his pursuits—loving knowledge for its own sake, loving it, too, not in pride of intellect, but in humility of heart, believing that it, like every good and perfect gift, cometh down from above from the Father of lights; and his longing for it seems to have become stronger as he grew older.

> "And this grey spirit, yearning in desire
> To follow knowledge like a sinking star,
> Beyond the utmost bound of human thought,

did it in the full conviction that here we know but in part, that we do but see as through a glass darkly; but that there, in the full effulgence of God's own light, we shall see all clearly, and that there all secrets shall be revealed.

Such, then, was Harvey—so far, at least, as scanty materials allow us to sketch the outline, and as my unskilled pencil may enable me to fill in the details of the portrait. It will not be without interest to inquire in the midst of what surroundings he grew up; for, though his was not the character to be shaped by outward circumstances, still no one can be altogether independent of their influence, and least of all in times such as were those in which Harvey lived.

The earliest lesson that he learned, next to that tender affection which must have been the daily teaching of a home where a mother like his bore sway, was that loyalty learnt in childhood, called into practice when grey hairs had come and old age was close at hand. Never could he forget those two cloudless July days, just before he went to the King's School at Canterbury, when all Folkestone gathered on the cliffs to watch the contest between the Armada of Spain and the few ships which then represented the navy of England. On the one side religion was said to be engaged (but never was she further than from the blessings and the cursings uttered then in her name), on the other were ranged all who were moved by love of country, love of freedom, love of all that makes life worth the having, just as they had been on a wider field, upon the Southern Sea, seventeen years before.* No Englishman, whatever his creed, hesitated then, as none would hesitate now, in determining the side on which he would be found contending; and the names of Howard, of Southwell, and of Montagu gave the verdict which I am well assured none in the present nineteenth century would reverse.

Full of this teaching, Harvey went to Canterbury. He stayed at the King's School for five years, from childhood to youth, and left† at the age of fifteen, entering at Caius College on May 31st, 1593. He took his degree of B.A. in 1597, and left the University; and I know of no record of who were his friends or what his pursuits during those four years. All that we can be sure of is that they were not years wasted, for he was well furnished for his future career when, on quitting Cambridge, he went immediately to Padua, attracted thither doubtless by the fame of its University as a school for those anatomical studies for which he had acquired a taste at College. The University of Padua became to Harvey a second mother, and her kindly nurture developed in him that genius which has left the whole world his debtor. The hasty traveller, indeed, who stops for an hour or two on his way to Venice to take a hurried glance at the chapel of Giotto, scarcely dreams as he treads the grass-grown streets of the deserted city,

> "Where wasteful time debateth with decay",

how large a space Padua has filled in the intellectual life of Europe.‡

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* Aubrey, *op. cit.*, vol. ii, part ii, p. 619.

† Aubrey, *op. cit.*, p. 382.

* The battle of Lepanto, fought on Rosary Sunday, October 7th, 1571.

† The terms in which Harvey's admission at Caius College, Cambridge, "in commeatum scholarium" is recorded, seeming to imply that he went thither with a scholarship from Canterbury, I addressed myself to my friends Dr. Paget, Regius Professor of Medicine at Cambridge, and Dr. Lochée of Canterbury; and, as the result of their kind inquiries, I feel able to state confidently that Harvey entered college as a pensioner, and that he held no scholarship from Canterbury.

‡ With reference to the state of the universities of Europe in the Middle Ages and Renaissance period, see Meiner's *Historische Vergleichung der Sitten des Mittelalters*, etc., Hanover, 1793, 8vo, vol. ii, 2ter Abschnitt, pp. 403-534; Cibrario, *Della Economia Politica del Medio Evo*, Torino, 1842, vol. ii, pp. 308-312; and references; Tiraboschi, *Storia della Letteratura Italiana*, Milano, 1826, 8vo, iv, 61, v. 71, vi, 111, vii, 156, viii, 154; and the first three volumes of that storehouse of antiquarian

And yet it was once a University with 18,000 students ; a true republic of letters, and a republic of a most democratic kind. The Professors, originally elected by the students, were in Harvey's time still nominated by the University. The different faculties were independent of each other as far as their internal government was concerned, and the ecclesiastical censures which afterwards troubled the life of Galileo did not interfere with his functions as Professor at Padua. To encourage merit wherever found, two professors were appointed on every subject, the one a foreigner, the other a citizen of Venice. These professorships, too, were not mere titles of honour, but, in addition to the fees paid by the students, the different chairs were well endowed. Thus, in the year 1598,[*] about the time when Harvey entered there, the annual stipend of the Professor of Practical Medicine was 1,000 florins,[†] a sum equal to nearly £500 at the present day ; and Fabricius himself, as Demonstrator of Anatomy, received 500 florins, or nearly £250, while as Professor of Anatomy and Surgery together he received more than double that sum. The number of students, indeed, had declined greatly in Harvey's time, as it had in all the old universities, whose most prosperous time preceded the invention of printing, the new learning and its new modes of communication. Instead of 18,000, there were at the end of the sixteenth century not above 1,500 students ; and the quaint old traveller Coryat,[‡] most unimaginative of men, but smitten with the plague of an insatiable curiosity which sent him wandering through Europe, to die at last in India, tells us of Padua, not eight years after Harvey left it : "There is one special thing wanting in this city, which made me not a little wonder, namely, that frequency of people which I observed in the other Italian cities. For I saw so few people here that I think no city of all Italy, France, or Germany, no, nor of all Christendom, that countervaileth this in quantity, is less peopled."

But, in spite of diminished numbers, the old reputation of the place survived, and its old traditions lingered still about it. We do not forget that it was to Padua the Duke sent for one who could best plead for Antonio, though I fancy none of us regrets the mischance which, instead of the learned Bellario, sent "the young doctor of Rome", who baffled Shylock, and left to us Englishmen another Shakesperian legacy in Portia.

The old customs had not yet fallen into disuse in Harvey's time.[§] The medical session began on October 18th, the day dedicated to St. Luke, the beloved physician, when all assembled in the church (the bishops and chief clergy being invited) to hear an oration by some doctor or other learned person in praise of the study of medicine ; and to urge the scholars to its diligent pursuit ; the whole assembly then heard mass, after which the Litany of the Holy Ghost was said ; for in those days people held, in profession at least, to the belief—"If any of you lack wisdom, let him ask of God, that giveth to all men liberally and upbraideth not, and it shall be given him."

To Harvey, no doubt, the great attraction of Padua was its anatomical school, which then presented opportunities for study greater than any other in Europe. The statutes of the University prescribed that twice during the academical session, which extended from St. Luke's Day to the Feast of the Assumption, on August 15th,[‖] the whole human body should be publicly dissected by the Professor of Anatomy. Nor were the means neglected to ensure the fulfilment of this regulation ; for it was provided that, if no criminals were executed within the province of Padua, the University should have the power of claiming bodies from Venice, or elsewhere within the Venetian States.[¶] Not seven years before Harvey came to Padua, the Venetian Government had built there at its own cost a new anatomical theatre, and had placed over its entrance an inscription commemorating the liberality, as well as the genius of Professor Fabricius,[*] who had built the former theatre at his own expense. Between Fabricius, honoured by and adding honour to the dignity of a Knight of St. Mark, and Harvey, a fast friendship seems to have sprung up, or rather that loving relationship which is so beautiful between the youth scarce twenty and the old man of well nigh seventy years.

Something of his open-handed liberality and of his indifference to wealth Harvey may have learned from the example of Fabricius, who contented himself with his stipend, and refused the large sums which his great reputation as a surgeon placed at his command. When grateful patients forced their gifts on his acceptance, he with quaint humour arranged them all in one large room, and wrote upon the door "Lucri neglecti Lucrum", which I may, perhaps, be allowed to render, "See what I get by saying No !"

The name of Fabricius is the first subscribed to Harvey's diploma. Next to it comes that of John Thomas Minadous, an accomplished and much-travelled man, the son and brother of physicians, and they of no mean repute. He passed seven years of his life in the East, and wrote a history of the war between the Sultan and the Shah—a matter then of much more concernment to Europe than at the present day. Next comes the name of Julius Casserius, a native of Piacenza, whom Fabricius took out of compassion as a poor boy to be his lackey. The lad showed parts ; Fabricius taught and trained him, for the republic of letters was then no mere phrase ; and so from valet he became pupil, from pupil friend, then colleague of Fabricius, and, last of all, his successor in the professorial chair. Servitor, Sizar, Taberder—terms and conditions which we have now done away with in our universities—brought then no sense of inferiority, for all felt equal in their citizenship in the commonwealth of learning. Casserius projected a large work on anatomy, illustrated with beautiful engravings, which the curious may still admire and the student still profit from. Death overtook him in the midst of his unfinished task, three years before his master passed away in advanced old age.

Let these suffice as samples of the men with whom Harvey was in daily intercourse. It would be easy enough, especially if one travelled beyond the somewhat narrow circle of those whose pursuits were exclusively connected with the profession of medicine, to swell the list of those remarkable alike for their genius and their culture, who were the inheritors of all that was most worth the possessing of that wonderful *renaissance*, that new birth of the world, out of which came alike the evil and the good of modern society.

The commencement of that epoch was like the thawing of some mighty frost-bound stream. Northern travellers tell us how with the approach of spring the long silence of winter is disturbed by strange sounds, loud cracking, or reports like those of thunder or of discharges of artillery, which tell how the masses of solid ice are giving way beneath the influence of the returning warmth. And next, for the simile still holds good, the swollen river overflows its banks, and terrifies, by strange portents of evil, the inhabitants, unable to realise the fertility which the receding waters will leave behind them.

> "Terruit gentes, grave ne rediret
> Sæculum Pyrrhæ, nova monstra questæ ;
> Omne cum Proteus pecus egit altos
> Visere montes",

says Horace ; and much, I think, is to be said in behalf of those who, like "Gravissimus et Excellentissimus Dominus Ortuinus Gratius", shrank from the new learning and its results.[†] The laugh was with Ulrich von Hütten : his own life and death were not so edifying as to make one cast in one's lot unhesitatingly with him and his compeers.

By degrees, the disturbances which ushered in this time subsided, and, as the waters assuaged the soil which had seemed before so barren, began to show a wonderful fertility. The plants, indeed, were not all like those trees which the Apostle saw in vision, each bearing its wholesome fruit, nor were the leaves of all for the healing of the nations ; but, far from it, the primæval curse remained, and thorns and thistles grew, too, in rank luxuriance.

But, look at it with whatever eyes we may, it must be admitted that the time was one of development of mind such as the modern world had not known before ; and this development was very general, not limited, as in the middle ages, to a few who towered above the rest, not alone from their own greatness, but in part at least from the littleness of those around. The last half of the fifteenth century was a time of preparation, in which men were learning the use of the new weapons

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knowledge, Monteil's *Histoire des Français des divers Etats*, of which the most convenient edition is that of 1853, with its graceful biography by Jules Janin.

As to Padua in particular, the best authorities are the, unfortunately, incomplete work of F. M. Colle's, *Storia dello Studio di Padova*, 4 vols., 4to, Padova, 1824-25, which ceases at the year 1405, when the territory passed to the Venetian States, just at the time, in short, when so trustworthy a guide would have been beyond all price ; next, the various details in Tiraboschi, *op. cit.*, iv, 69 *et seq.*, v. 93, vi, 116, vii, 160, viii, 55, etc. ; Riccoboni, *De Gymnasio Patavino*, libri vi, 4to, Patavii, 1598 ; Portenari, *Della Felicità di Padova*, folio, Padova, 1623 ; see lib. vii, which treats of the University ; and Facciolati, *Fasti Gymnasio Patavini*, ab anno 1406, 2 vols., 4to, Patavii, 1757.

[*] Riccoboni, *op. cit.*, lib. vi, cap. xx, p. 147. In 1601, according to a folio broad-sheet, published at Padua, with an exquisitely engraved picture of the exterior and another of the interior of the hall of the University, with the title "Nomina, cognomina, loca, stipendia, etc., professorum qui in Gymn. Patav. hoc anno profitentur". The stipend of Fabricius is stated as 1,000 florins, or £500.

[†] It is, I suppose, by a mere typographical error that Daru (*Histoire de Venise*, Paris, 1853, vol. vi, p. 195) professedly quoting Riccoboni, states the salary of the Professor of Practical Medicine at 3,000 florins. The salary was 1,000, and the highest of all was 1,680 florins to Pancirola, Professor of Civil Law.

[‡] *Crudities*, etc., reprinted from edition of 1611, 8vo, London, 1781, vol. i, p. 193.

[§] See *Statuta Almæ Universitatis Philosophorum et Medicorum, cognomento Artistarum Patavini Gymnasii*, Patavii, 4to, 1607. See p. 77, *De Inchoatione Studii.*

[‖] Statuta, etc., p. 103. *Dies festi, et vacationum.*

[¶] Statuta, etc., p. 90. *De Anothomiâ singulis annis faciendâ.*

[*] See biography of Fabricius and his colleagues in the different volumes of the *Biographie Médicale*, and also various incidental notices concerning them in Part iii of Facciolati's *Fasti*, etc.

[†] The first edition of the *Epistolæ Obscurorum Virorum* appeared in 1515. See pp. xxix of preface to Rotermund's excellent edition of the *Epistolæ*, published at Hanover, in 1830.

to be wielded in the storm and strife of the ensuing fifty years. The peace of Augsburg, in 1555, fixed the limits beyond which Protestantism has never passed, and the Council of Trent moulded the Roman Catholic Church into the form which it has ever since retained. The position of the two religions has since remained (with some notable exceptions indeed) one of armed truce; and it was during the first hundred years after the commencement of this state of things that the greatest intellectual activity which has ever shown itself in the world's history in matters not purely theological prevailed. I might add, it was during this time that the greatest intellects who in modern times ever enriched science or adorned literature arose and flourished. A century which began with Bacon and ended with Newton, which began with Shakespeare and ended with Milton (not to travel beyond the borders of our own island), forms an epoch in mental progress which none can excel, with which few can compare.

It was under the influences of this time that Harvey grew to intellectual manhood. There had, as we shall see presently, been labourers at work for nearly fifty years unconsciously breaking up the ground for him to till, fitting it for the culture of the skilled husbandman who came just at the right time to turn their otherwise barren toil to good account :

> "My heritage, how lordly rich and fair ;
> Time is my great seed-field ; to time I'm heir",

says the poet; consummate in wisdom, pagan in creed, born by a strange anachronism in Christian times.

And Harvey might well have rejoiced in this his heritage, whose value it yet needed genius like his to turn to good account. Vague traditions, gleams of information derived from veteran mariners, the seeds and fruits of unknown plants washed upon the western coasts of Europe, were the grounds on which Columbus built his hypothesis of a New World, whose discovery has rendered his name immortal. The facts were there, but others lacked the skill to interpret them. In the case of Columbus, the writing on the wall had remained unread for ages : in that of Harvey, the characters had not been traced so long. I do not know that that detracts from the skill of the interpreter.

We have no means of telling what foreshadowings of his great discovery had been present to Harvey's mind in Padua, though it is evident, from various incidental allusions to his work there, that it had constant reference to the great unsolved problem which he was the first to answer.

Harvey passed nearly five years at Padua, when he took his degree on April 25th, 1602; and the names of Fortescue, Willoughby, Lister, Maunsell, Fox, and Darcy, who are mentioned as Englishmen present on the occasion, tell of the genial temper of the man who, from youth to old age, possessed the charm that drew around him "troops of friends". Returning to England soon afterwards, he became Doctor of Medicine of Cambridge in 1603 ; joined the College of Physicians in 1604 ; added to the honour of our Fellowship by being himself enrolled among the Fellows in 1607; married, settled in London, and commenced practice here ; and in 1609 became Physician to St. Bartholomew's Hospital.

It is, perhaps, idle to wish that we could get a glimpse of Harvey's home in these his early days ; a young physician just started in London practice. All we can do is to mention a few of those who formed at that time the circle of his friends and acquaintances ; and first among them we meet with two who were with him in his old Paduan days ; Matthew Lister and Simon Fox, both of them men of mark. They were Harvey's seniors in point of age, but settled in London about the same time with him. Lister became Physician to the Queen of James I; but he was besides the trusted friend, steward, and councillor of Mary, Countess of Pembroke, whose name will live as long as Sidney's *Arcadia* or Johnson's epitaph are remembered. Fox, bred at Eton and at Cambridge, then served with the English Army in the Netherlands,[*] under Sir John Norris, then studied medicine at Padua, where he graduated, and whence he returned to London in 1603. Though ten years Harvey's senior in years, he was his junior in standing in the College, and succeeded to his post as Anatomy Reader, on Harvey's resignation. He rose to well-deserved honour, became Elect, then President, and died with a reputation fully equal to the euphuistic Latin epitaph of his friend and cotemporary Dr. Hamey.[†] Harvey himself married a daughter of Dr. Lancelot Browne, who was Physician to Queen Elizabeth, and I do not think we need go much further in order to picture to ourselves the society in which he lived, that of the "old courtiers of the Queen", which the old song contrasts, as we do not forget, with that of the "King's young courtiers".

Still these fancies, though they may serve to please the imagination, and to lend colour to an outline painfully indistinct, make no real addition to our knowledge of the inner life of Harvey, any more than does the fact that he attended Charles the First's kinsman, the young Duke of Lennox,[*] to the continent in 1630 ; or that he accompanied Thomas, Earl of Arundel (a name which no scholar, no lover of art can hear unmoved), in the year 1636, during the nine months of his special embassy to Vienna.[†]

Our further concern with Harvey is with his work ; his discoveries, with the reasons why we so venerate his memory, why, in making mention of the benefactors of this College, it is my duty impressed on me not only, sir, by your commands, but by the grateful sense of the past two centuries, to name Harvey first, and separated by a long interval from those whose merit yet nearly approaches his.

I have said that the work of the previous fifty years was needed to render Harvey's great discovery possible. This is not to be forgotten by any of us labouring at mere details of which, when we have ascertained them most certainly, we yet cannot see the purport or the uses. Sooner or later they will surely find their place.

It would take too long to enumerate all the anatomical discoveries that were made during the fifty years before the time of Harvey. I will therefore mention those only which have reference to the circulatory system.[‡] During this time the relations of the vena cava to the heart on the one hand and to the portal vein on the other were ascertained. The existence and distribution of the valves of the veins were made out and their purpose was conjectured, though these conjectures were to a great degree erroneous. The tricuspid valve of the heart was described and its uses were correctly explained. The absence of any direct communication between the two sides of the heart was placed beyond reasonable doubt ; and a theory was thus disposed of which had been built in part (as so many false theories are) on incorrect observation, though it rested in part also on over hasty inference from a condition which really exists in the fœtus. And lastly, and beyond all other points in importance, the smaller, or pulmonary circulation, was discovered and correctly expounded, though some erroneous hypotheses, the figments of mere fancy, the ghosts of old traditions, still hung about and obscured the simple truth.

To obtain these results, so briefly catalogued, many most able and accomplished men had spent their lives with no other reward than this, that in after years young students of anatomy should know the Ductus Arteriosus by its synonym of Ductus Botalli, or should learn to designate the little sesamoid bodies at the edge of the semilunar valves of the aorta and pulmonary artery as the Corpora Arantii, without for one moment asking who Botalli was, or what years of patient study, such as at this day we know nothing of, were needed before Arantius made those discoveries which have preserved his name, and little more than his name, from utter forgetfulness.

The following may be taken as a fair summary of what was known with reference to the circulation of the blood before Harvey's great discovery. The blood was known to pass from the right ventricle and circulate through the lungs, returning, in part at least, to the left side of the heart. But the current opinion was, that not all the blood, but only the thicker and impurer part followed this course, while some of the purer still remained in the right side for further use, and a portion of it transuded through the minute apertures which imagination still feigned, though sense could not discern them, to the left side of the heart. Here, as in an alembic, the purer blood mixed, as was supposed, with a certain vital spirit with which the lungs had impregnated it, was transformed or distilled into that æther of twofold composition, one part sanguineous, one aëreal, which it was the special office of the arteries to convey, informing the whole body with life, while the veins supplied the blood which subserved the humbler purposes of nutrition. Between these two sets of vessels there was supposed to be no direct communication—no circulation in the proper sense—but in each there went on a perpetual flux and reflux, an ebbing and a flowing tide, a tide—so influenced by the same causes as govern the tides of ocean; and hence, even in ordinary functions of the body, the aspect of the moon, the conjunctions of the stars, controlled or, at least, modified them all. The heart, too, was not only the generator of vital heat and seat of life, but the source of the passions, and, when unrenewed, the dwelling-place of evil, its seat and throne.

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[*] Dr. Munk, the learned and kindly Harveian Librarian, states that Fox took his degree at Padua before joining the army in the Netherlands. I believe that any one who consults the history of the time will see that the statement in the text is the more correct.

[†] Dr. Munk quotes it in his *Roll of the College*, vol. i, p. 139: "Patuit totum Foxium ad honesti normam factum esse, gravem sine morositate, religiosum sine superstitione, magnificum sine luxu, munificum sine commemoratione, nitidum sine curiositate, facundum sine tædio, prudentem sine fraude, amicum sine fine, opulentum sine injuriâ, cœlibem sine mollitie, historicum sine studio partium, poetam sine nugis, oratorem sine calamistris, philosophum sine sophismatibus, et medicum denique sine omni histrioniâ."

[*] James Stuart, fourth Duke of Lennox, son of Esme, third Duke, nephew of Lodowick, second Duke of Lennox, and eleventh Duke of Richmond, acceded to the title in 1625 ; created Grandee of Spain while abroad on his travels : on return made P. C. Lord Warden of the Cinque Ports, and K.G.; married the Lady Mary Villiers, daughter of George, Duke of Buckingham ; was one of the mourners who attended the funeral of King Charles I at Windsor, and died in 1655. See Playfair's *British Family Antiquities*, vol. iii.

[†] Son of Philip Howard, Earl of Arundel, and of Ann Dacres, his wife, and grandson of that Duke of Norfolk who was executed on June 2nd, 1572, for complicity in the intrigues of Mary Queen of Scots. He deserves to be remembered, first, for his parents' virtues, to which the late Duke of Norfolk raised a touching monument by the publication of the contemporary lives of Philip Howard, Earl of Arundel, and Ann Dacres, his wife, 8vo, London, 1857 ; and second, for his own devotion to art, which has made his name a household word with all art-lovers everywhere. See sketch of his life in Collins's *Peerage*, by Brydges, 8vo, 1812, vol. i, p. 112-125.

[‡] For an account of the anatomical discoveries which preceded Harvey's time, see Sprengel, *Versuch einer pragmatischer Geschichte der Arzneykunde*, Halle, 1827, 8vo, 3ter Theil, 4tes Capitel

"Where life, and life's companion, heat, abideth;
And their attendants, passions untamed,
Oft very hell in this straight room resideth;
Yet that great Light, by whom all heaven shines
With borrowed beams, oft leaves his lofty skies,
And to this lowly seat himself confines."

So sings,[*] or stammers rather, one of Harvey's contemporaries, the least poetical of a family of poets.

I have quoted these lines, not for their merit certainly, but because they afford a good illustration of that mixing up of the figurative expressions of theology in scientific inquiries which interferes grievously with the investigation of truth in the world of matter, while it yields no real because no intelligent homage to the higher world of belief. To Cæsar that which is Cæsar's, holds good in the realm of intellect as well as in an earthly state. Each has its rights, human intelligence as well as Divine authority, the lower as the higher. To confound the two were to render true fealty to neither.

One dares not, in an oration to commemorate Harvey, omit, how superfluous soever the mention may be, some brief statement of what his great discovery was.

It was twofold.

First—After corroborating the statements of those who had denied either that blood transudes through the walls of the ventricles, or that the pulmonary veins bring back to the left side of the heart air commingled with the blood, he asserts that the left ventricle has no other function than that of impelling the blood brought to it through the arteries, which themselves contain blood and nothing else, not air, nor vital spirit, but blood purified by its passage through the lungs, and so made apt for the nourishment of the whole body; and

Second—That while the arteries thus distribute everywhere the fresh pure blood, the veins with which they communicate bring back that same blood, no longer pure, to the right side of the heart, whence it is once more transmitted to the lungs, thence carried again revivified to the left ventricle, and then once more distributed throughout the body, its changes not being those of an ebbing and a flowing tide, but the ceaseless current of an onward rushing river.

We have no means of tracing step by step Harvey's progress, or of knowing when the grand simplicity of the Circulation of the Blood first revealed itself to him as unquestionable truth. "I have found out that which will make my name immortal", exclaimed Charles Bell one day in hot haste, when the idea of the two systems of nerves, the motor and the sentient, presented itself to his mind as no vague fancy, but as the conclusion to which careful experiment and thoughtful reflection had brought him. Bell was fortunate in the *Vates Sacer*, the faithful companion, the ever ready secretary; shall we say the muse who attended on his genius, or the angel guardian ever by his side, who smoothed his sometimes rugged path, who chronicled in her memory each word and deed of his, and who with exquisite grace has revealed enough of him to make us understand how much there was in his character to love as well as to admire.[†]

The name of Harvey suggests that of Bell as of the one man who stands next to him—I had almost said, and do not care to unsay it, who stands side by side with him—by virtue of his deep insight into the structure of our frame and of the laws by which its functions are governed. I trust to your indulgence, sir, to pardon me this digression.

Of Harvey's inner life we have no record; and so all we know is that he taught the doctrine of the Circulation of the Blood as early as the year 1615, when he held that office of Lumleian Lecturer, to which the too indulgent judgment of your predecessor, three years ago, sir, promoted me. It was not, however, until the year 1628, when Harvey was fifty years old, that he gave to the world the full fruit of his labours, in his *Exercitatio de Motu Cordis*, which was published at Frankfort-on-the-Main.[‡] I know few scientific treatises so interesting as this, whether one reads it in Harvey's own Latin, or in the most excellent translation of Dr. Robert Willis, whose early kindness to me I desire here publicly to thank him for, while I congratulate him on the not inglorious learned leisure of a ripe old age.

What first strikes one in reading Harvey's essay *On the Motion of the Heart*, and still more in his two letters, written years afterwards, to the younger Riolanus, who had attacked his doctrines, is the exquisite courtesy of his tone towards his opponents. It is the more remarkable, since it was so little the custom of the time. He mentions no adversary's name except to couple it with praise; and the hardest words I find him use are in the commencement of his second letter to Riolanus,[*] which I venture to render thus:

"Some there are, detractors, mountebanks, foul-mouthed, whose writings I have made it a rule to myself never to read, since I should think them unworthy of answer. They may indulge their spleen for me; few right-minded persons will care to read what they have written, nor will they obtain that greatest and most desirable of all gifts, the wisdom which God, the giver of all good, grants not to the evil."

Harvey lived in an atmosphere too pure for clouds from the lower world to reach him, or if, remembering his famous conversation with Sir George Ent,[†] to which we owe the fragment of his other great work, we cannot deny that strife vexed, and detraction pained him, he at any rate, in spite of his choleric youth, had learnt well the lesson of which there is no better nor terser version than the Psalmist's, "Fret not thyself in any way to do evil."

The same calm temper shows itself all through his essay. There is nothing in it for display, no attempt at fine writing, no disparagement of others, no indirect laudation of himself; not a word to show that he ever dreamt of the undying fame which was to be his reward. He seems to have gone about it as if it were the simplest thing in the world to have made the greatest discovery that ever had been made in anatomy and physiology. He quietly details his observations, adduces his arguments, answers objections, draws his conclusions, and at last, when he has exhausted his facts and completed his train of reasoning, he just writes his last sentence and lays down his pen.

I will not attempt to give an analysis of his great work, nor to describe the way in which, step by step, Harvey builds up his argument. This has already been done by others far better than I could hope to do it; and I should be sorry to attempt to tread, where I know I should falter, in the steps of the Linacre Professor,[‡] who last year filled the post which, with a sad sense of my shortcomings, I am now striving worthily to occupy.

Nor will they who heard the Harveian Oration three years ago[§] blame me if I pass without further notice that great work on Generation, which (incomplete though it is, and imperfect as it must needs be, owing to the absence in Harvey's time of many of those helps which were absolutely essential to arriving at the truth) remains like the torso of some ancient statue, the imperishable monument of the artist's genius.

I will keep, with your permission, sir, to the lower level, where I can walk most securely. "I am not high-minded, I have not high thoughts, I meddle not with things that are too wonderful for me", said one of old, and the tradition has been well kept up in the College, which once enrolled you among its Fellows, Mr. President, and where the low and narrow gate humility leads to the gate of honour.[‖]

In this utilitarian age the question may well be asked (no unreasonable one, indeed, in any age), What was the practical outcome of it all; what was the use, the good of the discovery of the circulation of the blood? First, I may perhaps be allowed to say, though the remark is trite enough, that the mere finding out of any truth, be that truth what it may, is clear gain. So long as we do not deify human intellect, every triumph that it achieves enriches all; and it is as proud a thing for us to be able to claim citizenship with Newton or with Bacon as with Wellington or with Nelson. Nor is this all; but in Harvey's time the manner in which he conducted his inquiries was in its teachings of value little less than was the result at which he arrived. Four years before the *Novum Organon* appeared,[*] he had anticipated its famous lesson, "Non fingendum aut excogitandem quid natura faciat aut fiat", and had proved beyond the possibility of refutation, what years afterwards he asserted in eloquent words, "That facts cognisable by the senses wait upon no opinions, and that the works of nature bow to no antiquity; for indeed there is nothing either more ancient, or of higher authority than nature".[†]

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[*] Phineas Fletcher, *Purple Island*, Canto iv, verses 25-6, editio princeps, Cambridge, 4to, 1633.

[†] Letters of Sir C. Bell, 8vo, London, 1870.

[‡] Life, in Willis's *Harvey*, p. 22.

[*] *Harvæi Opera*; College edition, p. 109.

[†] *Opera*, p. 162; and Willis's translation, p. 147.—"And would you be the man", said Harvey, smiling, "who should recommend me to quit the peaceful haven, where I now pass my life, and to launch again upon the pathless sea? You know full well what a storm my former lucubrations raised. Much better is it oftentimes to grow wise at home, and in private, than by publishing what you have amassed with infinite labour, to stir up tempests that may rob you of peace and quiet for the rest of your days."

[‡] Dr. Rolleston of Oxford.

[§] By Dr. Arthur Farre.

[‖] It seems almost an impertinence to add the name of Gonville and Caius College, Cambridge, with, as Fuller quaintly terms them, its "three gates of remark. The gate of *humility*, low and little, opening into the street over against St. Michael's church; the gate of *virtue*, one of the best pieces of architecture in England, in the midst of the College; thirdly, the gate of *honour*, leading to the Schools. Thus the gates may read a good lecture of morality to such who go in and out thereat." Fuller's *History of the University of Cambridge*, 8vo, London, 1840, p. 189.

Still, to us as practitioners of the healing art, what help came there in the exercise of our calling? It is said that Harvey had the rare happiness, notwithstanding the opposition which at first attended the announcement of his discovery, to see it universally accepted before he died. Was human life prolonged, was human suffering mitigated, as its direct and immediate consequence? To both these questions we must answer *No;* but the *no* must be accompanied by two qualifications.

1st. In the ordinary affairs of human life many things are done rightly, but on wrong, or at least on insufficient, grounds, just as in the world of morals many a man is diligent, or temperate, or chaste, on grounds far lower than the noblest. The seaman still navigated his ship in the main correctly by the stars nearly three hundred years after the use of the mariner's compass was known in Europe, and treatises on the use of the astrolabe continued to appear down nearly to the end of the sixteenth century.[‡] The Ptolemaic theory of the solar system was wrong, but it served to calculate eclipses by as well as the Copernican.

But 2nd. We, with our narrow span of life, are naturally in a hurry for results. What comes not in our own time seems delayed indefinitely, and we feel as little children do when they dig up the ground in their impatience to learn whether the seeds they planted have yet begun to sprout. It was thus once supposed that in the realm of nature effect followed cause in quick succession, and it was little thought how slow is the action of those powers which have by their continuance upheaved mountains, or have hollowed out deep seas. So, too, in the world of intellect the remote consequences of a discovery are long in disclosing themselves, impossible to be foreseen. No gift of second sight showed at the time to anyone the electric telegraph in Franklin's experiment made a hundred and twenty years ago. Harvey admired the skill of the artificer revealed by his researches as it had never been before; but of the practical results of those researches he saw but little; and could never have imagined with what accuracy we can now, thanks to his labours, ascertain the nature and seat of disease in each of the four cavities of the heart itself, presage its course, and even where we cannot cure, obtain at least an euthanasia for our patient, and rob death of half its terrors by depriving it of more than half its suffering.

Harvey's merits as a discoverer have thrown into the shade his claims to be remembered as a physician. It may be doubted, however, whether, if we had adequate means of forming a judgment, we should not find him entitled to occupy a far higher place than is commonly assigned him, on no better grounds than are furnished by a few depreciatory remarks of Aubrey.[§] He understood the value of morbid anatomy as the only sure ground on which pathology can stand; and, true to his guiding principle in his great discovery, while thanking Riolanus for his *Enchiridion Anatomicum et Pathologicum*,[‖] the fruit, he says, of labours worthy of the prince of anatomists, he uses the following remarkable words, true beyond all controversy as far as regards material things: "Nulla est scientia quæ non ex præexistente cognitione oritur, nullaque certe et plene cognita notitia, quæ non ex sensu originem duxit."[¶]

Riolanus in his book had indulged himself in the idle fancy of attempting to deduce, from examination of the bodies of healthy subjects, inferences as to the nature and seat of the diseases to which the human frame is subject; and Harvey says that, stimulated by his example, he too proposes to publish his *Medical Anatomy, or Anatomy in its Application to Medicine*—a work which, it will be observed, he speaks of as being completed, and only waiting for the printer. But his mode of proceeding in his work, he says, is different from that of Riolanus, since he purposes "to relate from the many dissections I have made of the bodies of persons diseased—worn out by serious and strange affections—how and in what way the internal organs were changed in their situation, size, structure, figure, consistency, and other sensible qualities, from their natural form and appearances. And just as the inspection of healthy and well constituted bodies contributes essentially to the advancement of philosophy and sound physiology, so does the inspection of diseased and cachectic subjects powerfully assist philosophical pathology.[*]

Just a century later, Morgagni, in his great work, *De Sedibus et Causis Morborum per Anatomen indagatis*,[†] brought honour to his own name and to Harvey's own University of Padua, by doing excellently well what Harvey had done before. Still we cannot but lament the destruction of Harvey's finished manuscript, which might have set our art forward by a hundred years. We regret the lost treasure as we do the

> "Wedges of gold, great anchors, heaps of pearls,
> Inestimable stones, unvalued jewels,
> All scattered at the bottom of the sea."

Nor is this our only loss. Harvey refers on many occasions, as to a completed work, to his *Medical Observations*, and introduces, especially in his *Exercitatio de Partu*, many illustrative cases, which he says he extracts from it. These cases are remarkable for their clearness, brevity, and for the aptness with which they bear upon their subject; and, as far as the purpose for which they are adduced admits of it, they show also much homely common sense and much practical medical skill.

We may the more deplore the loss of these *Observations*, since they were by no means limited to one department of medicine, but seem to have been very extensive in their scope, while their record appears to have been specially a labour of love to Harvey. He refers to them in his second letter to Riolanus, when speaking of the influence of the mind upon the body. "But here," says he, "I come upon a field where I might roam freely and give myself up to speculation. And, indeed, such a flood of light and truth breaks in upon me here, occasion offers of explaining so many problems, of resolving so many doubts, of discovering the causes of so many slighter and more serious diseases, and of suggesting remedies for their cure, that the subject seems to demand a separate treatise. And it will be my business in my *Medical Observations* to lay before my readers matter upon all these topics which shall be worthy of the gravest consideration."[‡]

What would not such a book have been, written on such subjects by such a man! But it perished in those civil wars which yet were to Harvey nothing more than the most natural occasion for calling into practice the lessons of loyalty to his Sovereign and of love to his country which he had learnt in his childhood. So little could bitterness dwell in his memory, that in a letter written when eighty years of age to Nardi,[§] at Florence, he says, "I send you three books upon the subject you name"; and not a word more does he add, though the subject was those very civil wars which had driven him from his home and his pursuits, which had slain his Sovereign and his friend, and had destroyed, by the hands of a fanatical soldiery, the fruit of years of labour. In Harvey's case, indeed, Apollo seems to have cared but ill for his votary.

> "Captain, or Colonel, or Knight-in-Arms,
> Whose chance on these defenceless doors may seize,
> If deed of honour did thee ever please,
> Guard them from harm!"

So pleads Milton for himself with the Cavaliers. I am sure, had he known Harvey, he would have pleaded no less earnestly for him with the soldiers of the Commonwealth. Harvey bowed without a murmur to the stroke of which later times have felt the full weight.

But I see, Sir, my little hour is well nigh spent, and I have as yet done but scant justice to one part of my theme, though that is indeed the greatest, the real occasion of our meeting here. A word or two must still be said to commemorate the Benefactors of our College; and I am forbidden to end without the endeavour to stir up myself and you, my colleagues, to a diligent inquiry into Nature's ways.

Benefactors—those who have done us good, or have shown us kindness; in vulgar sort, those to whom we owe gifts of money, grants of land, something or other that can be bought or sold in open market. According to this reading, few indeed have been our benefactors. Harvey, it is true, adopted this College as his heir, and left to us his lands, his books, as well as his name and fame and the example of his virtues. Dr. Hamey, too, gave us money, and we have had small bequests and gifts from other sources; but it all amounts to but little, some £600 a year or so. We must seek a higher meaning for the word "benefactors" than is associated with any idea of money.

> "Non ebur neque aureum
> *Nostrâ* renidet in domo lacunar:
> Non trabes Hymettiæ
> Premunt columnas ultimâ recisas
> Africâ."

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[*] The first edition of Bacon's *Instauratio Magna, i.e., Novum Organon*, &c., was published in 1620, in folio, at London. See Lowndes' *Bibliographer's Manual*, Bohn's edition, London, 1840.

[†] Second Letter to Riolanus, Willis's *Harvey*, p. 123.

[‡] See list of works on the Astrolabe in Brunet's *Manuel du Libraire*, Paris, 1865, vol. vi, p. 491.

[§] "I never knew any that admired his therapeutique way. I knew several practitioners in this towne (London) that would not have given 3d. for one of his bills, and that a man could hardly tell by one of his bills what he did aime at." *Lib. cit.*, p. 385.

[‖] Published at Leyden, in 8vo, in 1649.

[¶] Exercitatio Prima, ad Riolanum, *Opera*, p. 91.

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[*] *Opera*, p. 91, and Willis's translation, p. 89.

[†] First edition, published at Bassano, in 1761.

[‡] Willis's translation, p. 129.

[§] *Ibid.*, p. 611.

What comparison will this our College bear with the magnificent halls of the great City Companies?

I remember, Sir, how once a year it was my duty, when Censor, to be present when stock was taken of our plate. You will correct me, if I give the inventory wrongly. A silver punch-bowl, innocent for the past fifty years at least of the generous brewage, and used ever since I can remember to collect the voting-papers at our elections; a pair of silver candlesticks, a silver inkstand, and a silver bell, and your wand, Sir, the emblem of your office. It all, if melted down, might fetch perhaps twenty pounds; but I doubt it.

> "At fides, et ingeni
> Benigna vena est."

In that stood the old Roman's wealth; in that stands ours.

Our great benefactors are they who have left us the inheritance of their example. They are such as Sydenham, who with clear open intellect looked around him in search of truth, who used theories and systems as counters to mark with, or as the cords with which to tie his facts into bundles for greater convenience and more handy reference. And so with him it has come to pass, as with Hippocrates, that no time will ever antiquate his writings, nor advance of scientific knowledge lessen their value. Or such as Mead, the man of universal culture, and yet the great practical physician—

> "Health waits on Meade's prescription still——"

says a contemporary,[*] the associate of princes, the patron of learning, the poor's best friend; to whom worldly success came in a larger measure than to most, but whom yet none envied while living, all mourned when dead; and the secret of whose rare good fortune was, that he lived in the spirit of his own motto, "Non sibi, sed toti". Or such, in later days, as Jenner, who devoted his whole life to the patient investigation of the means by which the once greatest scourge of modern Europe might be rendered well-nigh harmless. Or, lastly, to come down within the personal recollection of many of us, such as Bright, toiling unrewarded for years, investigating disease in the wards of the hospital, and studying its consequences in the dead-house, till he had found out and described a previously unknown malady; nor only that, but had also pointed out the means by which to accomplish its prevention and to attain its cure. And when his recompense had come, though tardily, and when at the summit of his success, he still retained all the simplicity and gentleness of a child. One approached him without fear, and scarcely conscious of the distance between oneself and him. So ready was he to impart knowledge, he seemed only a senior student; so kind was he in his way of doing it, he seemed rather an elder brother.

> "They are all gone into the world of light,"

as says, in one of his most touching poems, a contemporary of Harvey's later years, who, caring little for academic titles, or for worldly honours, left the turmoil and the throng to pass his life quietly on the banks of Usk, tending the poor as a village doctor, and finding his refreshment and his solace in the composition of those verses which he has left behind for ours. Another and a different illustration this, which Henry Vaughan affords of the benefactors whom we on this day are bound to have in special remembrance.

One thing in common belongs to Sydenham, and Jenner, and Bright, as to so many whom time fails for me to mention here. They were most diligent in seeking out nature by way of experiment, as Harvey has it, by an old use of the word which signifies to find out, or learn by experience, not to settle or predetermine by plausible conjecture, or by reasoning, what is most likely or most fitting. But there never was a time when this exhortation was less necessary than at present; so busy is every one, with the aid of all imaginable scientific helps, in investigating the structure and functions of the body, and in unravelling the problems presented by its diseases. It is to the former rather than to the latter of these two classes of inquiries that the objection must attach, if attach it does, that its conclusions sometimes seem opposed to the doctrines of religion, and that its pursuit is unfavourable to the humility and the teachableness on higher subjects which we are all bound to cultivate. I apprehend that any such objection applies even more forcibly to metaphysical study than to scientific research; and we cannot forget that the poet represents the highest of the fallen spirits as seeking distraction in their uneasy rest, by discourse

> "Of Providence, Foreknowledge, Will, and Fate,
> Vain Wisdom all, and false Philosophie;"

and leaving the secrets of this material world, "which things the angels desire to look into", unscanned.

But further, such objections as there are attach not to the facts observed, but to the inferences, the generalisations drawn from imperfect knowledge. None of us who can remember the first broaching of Schwann's famous theory of cell-formation, but must have been struck by the modifications which thirty years have introduced into the doctrines then propounded. We may take a fact for true as far as our means of observation reach, but it must be with the consciousness that with the increase of those means the truth may seem far other than it did before, as when more powerful telescopes resolved the nebulæ into myriads of stars. Nor only so, but there is many a fact of which we can see a part only, cannot take in the whole of it at once; and hence our notions concerning it must needs be incorrect. Let one person describe the Matterhorn as seen from the Italian side, and another as he viewed it from the Riffel, and it would be hard to recognise in the two accounts the same wonderful mountain. The description, too, would differ, according as the object were looked at when the dense storm-clouds were settling down upon it, or when the rosy vapours of the setting sun were beautifying, though half concealing it, or in the clear sky of early morning when its outline stands out distinct. And so it is, too, in our investigations into scientific questions. If our view be obscured by any prejudice for or against this or that inference, which a fact seems to invalidate or to support, or even if the hues of religious sentiment are allowed to intervene and colour it, we see indistinctly and judge wrongly. It is only the *Lumen siccum*, the pure light of passionless intellect, which shows things truly and distorts them by no refraction. It is thus only that we can inquire into the truths written by God's own finger on the world, and on all that inhabit it. *Sine odio, sine studio*, with no prejudice, no favour, for it is eternal truth we seek after; not shocked, nor scandalised, because other seekers as honest as ourselves arrive at conclusions which do not harmonise with ours, for in matters of science at least "it is not impossible that truth may have more shapes than one". Therefore, to quote further the words of the same great master—"Give Truth but room, and do not bind her when she sleeps, for then she speaks not true, as the old Proteus did who spake oracles only when he was caught and bound; but then rather she turns herself into all shapes except her own, and, perhaps, tunes her voice according to the time, as Micaiah did before Ahab, until she be adjured into her own likeness."[*]

But many a child knows the alphabet who cannot spell, or spells but cannot read, or reading fluently enough, yet fails to catch the full meaning of the sentence. And so I take it we must feel that at the best we are but children who have scarce learnt to spell out the words, and who dare not, therefore, be too positive as to their true significance.

Or, to change the metaphor, our theories and systems are but as the scaffolding which serves to raise the building. As the building rises, the scaffolding is struck, and we may be content if it has answered well its temporary purpose. We must not hold too confidently to opinions which a few years may show to be partial, if not wrong, and may wait patiently in hopes of a clearer vision, as he of old who first saw "men as trees walking", afterwards under the Divine touch, beheld all clearly.

And it is thus, I believe, and in this spirit, that we shall avoid all danger of dogmatising or of concluding rashly from our most imperfect view of things that come under the cognisance of our senses with reference to those higher things which are beyond our ken. There is, indeed, a happiness enjoyed by those who with firm conviction yield to some truths an assent more undoubting than any to which reason alone would lead, and to which none but they can attain. Thus it was that Pascal followed his scientific pursuits, with no solicitude as to the conclusions to which they would conduct him, safe in the "more sure word of prophecy" to which it behoved him to take heed.[†]

But even for those who are not able to subscribe to Pascal's creed, there is yet enough in all the changes of scientific theory and opinion to lead them, when doing battle for some hypothesis that may seem opposed to old beliefs, to bear in mind that after all they may be mistaken, that the ancient creed may have more truth in it than seems. I know of no more wholesome state of mind for the investigation of truth than the ever-present consciousness of the possibility of error.

I feel, however, that I have small justification for speaking of the frame of mind befitting those who investigate the great secrets of nature. The magician's power to compel her to disclose them has been denied to me. *Miror magis*. I wonder, I admire, and I rejoice in the safer, humbler walk which our profession opens to the less gifted, as it does to me.

The study of our body, of its wonderful adaptation of means to end, has led all of us to recognise the reign of law, and most of us to see behind the law the Lawgiver, "the divine Harmostes who arranges all in such methodical and tunable proportions".[*] And yet we come upon the difficulties—the insoluble difficulties of mechanism, not so perfect but that it might have been more complete; sure to wear out, and in its decay certain to entail suffering—suffering avoidable, unnecessary, which the great Archæus might, had he chosen, have prevented. Much ingenuity has been exerted in the endeavour to explain away these difficulties, and at the same time to resist the conclusion, *Non omnis moriar*, which explains them all.

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[*] Sir C. Hanbury Williams, in a Grateful Ode, as he terms it, to two of the Bath doctors, in acknowledgment of his daughter's recovery. (See his Works, London, 1822, vol. i, p. 232.)

[*] Milton's *Areopagitica*, in Works, 8vo, London, 1867, vol. iv, p. 444.

[†] See Dr. Pusey's Sermons, preached before the University of Oxford, between 1859 and 1872, 8vo, London, 1872; Sermon I, identical in teaching with Newman's *Grammar of Assent*.

But our profession gives us, in its daily exercise, the solution of the problem. We have to do with the spoilt, not with the perfect; the meaning presses on us; we find it in a brief sentence, half of which most are ready to utter with reverence, *Deus qui humanæ substantiæ dignitatem mirabiliter condidisti*"; "God who in creating human nature didst wonderfully dignify it;" but two words are still wanting to complete it, *et mirabilius reformasti*, and "hast still more wonderfully renewed it". These solve the otherwise insoluble equation, these give the answer to the enigma.

I have thus striven, sir, as best I could, to obey your commands, and to set before the Fellows and members of this College the great Harvey and the times in which he lived. I have endeavoured especially to dwell upon those features in his character—the gentleness, the forgetfulness of injury, the love of truth, the love of others, the highest love in which all of us can best hope to follow his example. I trust, however, that I have not failed to render such homage as I could bring (and the offerer's gift must not be measured by his poverty or by his wealth, but by the heart which brings it) to the genius of Harvey, and of all those whose endowments have enabled them since his time to follow where he led. I have claimed, too, for them and for all investigators into nature's ways the most unshackled freedom of inquiry. But knowing how upon great heights the head is apt to turn dizzy, and how the consciousness of having attained an elevation which few can ever dream of reaching tends to induce self-admiration and intellectual pride—"by that sin fell angels"—I have ventured to recommend, as an unfailing talisman against such dangers, that *Hæmony*

"More medicinal than that *Moly*
Which *Hermes* once to wise *Ulysses* gave."

If in so doing it should seem to any of my friends, my colleagues, or to any of my audience, that I have overstepped the limits of my office, I ask their pardon, sir, as I ask yours.

THE HASTINGS PRIZE ESSAY,

1873.

ON THE PATHOLOGY AND TREATMENT OF OVARIAN DISEASES.

By LAWSON TAIT, F.R.C.S.,
Surgeon to the Birmingham and Midland Hospital for Women, etc.

VI.

THE pathology of ovarian cysts involves a number of questions that have been raised and discussed by observers of the greatest eminence; but, up to the time of writing this, I have found little that has either harmonised with my own observations, or seemed to me to give any very satisfactory explanations of the growths. I have had opportunities of examining a large number of tumours removed in the operation of ovariotomy, and I have come to some conclusions which are at variance with those of many observers, but which, nevertheless, seem to me to be founded on fact, and to have at least this recommendation, that they simplify matters very much.

First of all, we may dismiss what we know of the causes of ovarian dropsy in the confession that we know nothing about them. The most common form, the adenoid or proliferous, and also the rare multiple tumours, occur during the period of life when ovarian cell-growth is mature; the more rare unilocular cystic growths, besides being met with during this period, occur at the extremes of life; for I have seen one at 9 years of age, and I have now under my care a unilocular tumour in a patient aged 72. I have also removed a tumour from a lady aged 66, which, though it was composed of several sacs, I have placed under the category of the unilocular tumours, for reasons which I shall afterwards discuss.

I have already said that I have not yet met with an ovarian tumour that was unilocular, and I have just perused, in the *Lancet*, an extract from a paper by Dr. Granville Bantock which strongly confirms the view I hold, that all unilocular tumours in the neighbourhood of the ovary are not of ovarian, but of parovarian, origin. The parovarium consists of a few closed linear sacs, the remains of the tubules of the Wolffian body in fœtal life, which may readily be seen on holding the broad ligament, with the ovary and Fallopian tube *in situ*, up to the light. These tubules frequently contain a perceptible amount of fluid, and I have repeatedly seen them, accidentally in *post mortem* examinations, distended to the size of beans or filbert-nuts, and have disregarded them as "Wolffian sacs" of no pathological importance. Three years ago, I had occasion to make a medico-legal examination of the body of a woman far advanced in life, and I found in her left broad ligament a cyst as large as an orange, filled with clear limpid serum. It was pressing upwards and backwards out of the pelvis, the ovary being at its lower and anterior aspect, and the Fallopian tube arched over its anterior surface. On the side next the uterus, two smaller cysts were lying close to it, and, nearer still, a very minute sac, which was evidently, by shape even, a distended parovarian tubule. The ovary was white, puckered, and shrivelled, and had not a continuous relation to any of the cysts, though it touched the largest at its hilum. The Fallopian tube was normal, and had no other relation to the tumours than slight connection by loose areolar tissue. There was in my mind no doubt that this was a pathological indication of value; for, in an ovariotomy that I had performed not long before, I was struck by the fact, that the ovary was perfectly healthy and separated from the tumour, as was also the tube, by a mesovarium of some extent; in fact, I did not do ovariotomy at all in the removal of the tumour, for, in passing the chain of the *écraseur* round its base, I did not include either the tube or the ovary, and they were both returned into the abdominal cavity.

The consideration of these facts led me to examine some tumours I had removed previously and others removed by friends, and I have since subjected specimens to careful examination for confirmation of my accidental observation. The result has been that in every truly unilocular tumour I have found the ovary unaffected, though on several occasions I have found it stretched over the cyst-wall. I have three or four times found the ovary separated from the cyst by a more or less distinct mesovarium, and on one occasion I found in that fold some unaffected parovarian tubules in the case of a lady, a patient of Mr. Hall Wright, from whom I removed a large unilocular cyst about eighteen months ago. In one instance where I operated a few days ago, the healthy ovary was left at least an inch below the clamp; and in another case, to which I have already alluded when speaking of adhesions, the ovary and tube were found glued on to the cyst, but forming no part of it. In this cyst the walls were extremely thick and contained large quantities of involuntary muscular fibre—a fact which I do not think militates against my view that it was of parovarian origin, for nucleated muscular fibre-cells exist in the broad ligament to some considerable extent.

The case to which I have alluded as presenting a tumour with many cysts, but which ought to be placed under the same category as the unilocular cysts, occurred in the person of a lady aged 66. She was a widow, having been married forty-three years before the tumour appeared. The menses had ceased for nearly twenty years, and her youngest child was aged 25. There was every reason to believe, therefore, that the condition of the cell-growth of her ovaries would be one of very low activity. The tumour was first discovered about five years before I saw her, and had grown slowly for four years and a half, but with extreme rapidity for six months. The abdominal parietes were very thin, and the percussion-wave was communicated with extreme and uniform rapidity in every direction. I diagnosed, from my former experience, that it was a unilocular Wolffian cyst, and that the ovary would, in all probability, be found uninvolved. I was right about the ovary, for that was found, along with the tube, almost undisturbed, and not in any way involved in the tumour, the latter having apparently escaped from between them backwards and upwards. I had made a mistake, however, about the tumour being unilocular, for it was composed of five or six sacs. The walls of these were very peculiar, in being of uniform thickness, or rather thinness, for they were like tissue-paper, and had no thickening towards the base of the tumour, as is always the case in the multicystic adenoid or multifollicular tumour. My belief was, and is, that this tumour was a specimen of dropsy of a number of the parovarian tubules; for, if one alone may become dropsical, there can be no reason why a number should not be so coincidently. My opinion has been greatly strengthened, however, by a re-examination of the tumour for the special investigation of one point drawn attention to by Dr. Bantock; that is, the possibility of separating the outer coat of the tumour. This can readily be done towards its base for a short distance up from the ovary, discovering the fact, that the gland and its duct can be stripped off the tumour without damaging its walls. The rapid growth during the later periods of its existence, however, seems to have so stretched the walls, that, beyond two or three inches from its base, the peritoneal layer cannot be separated from the cyst-wall proper. I have quite satisfied myself that this case is really one of multilocular parovarian tumour; and I am the more strengthened in this view when I find that Dr. Bantock refers to a case of Mr. Spencer Wells's, which the great ovariotomist recognises as one of bilocular parovarian cyst.

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[*] See also the whole of the eloquent Chapter II of Book IV of Cudworth's *Treatise concerning Eternal and Immutable Morality*, 8vo, London, 1731; especially pages 176-177.

Considering this, it is a point for investigation whether or not the curious little pedunculated cyst, representing the terminal bulb of the Wolffian tube, and generally known as the organ of Rosenmüller, may not sometimes form a unilocular tumour of morbid size and be removed as an ovarian growth. All these rudimental structures are lined with epithelium, and may, therefore, conduct themselves as other tubes so provided are known to do. I suspect that the tumour, in the case I have mentioned where I actually left the ovary on the affected side, may have been an instance of dropsy of this little cyst.

I do not mean to assert that such a thing as a unilocular tumour of the ovary proper may not occur, but I am certain that, in my experience—limited certainly—it has not been met with; and before such a tumour is accepted, the specimen must be rigidly examined to ascertain whether or not the ovary is involved. I have met with a case in a patient 52 years of age, who had ceased menstruating for two years before the discovery of the tumour, where I diagnosed a unilocular tumour; but when I came to operate, I found at the base a large number of minor cysts representing the ovary, from one of which originally, I have no doubt, the major cyst was developed. I believe that at the base of all the unilocular tumours which are really ovarian, minor growths will be found that will substantiate the true origin of the tumour.

This leads me to speak of a variety of tumours, the origin of which has been fully traced by Rokitansky and Ritchie, and with an example of which I have been fortunate enough to meet, thereby having been enabled to confirm their observations.

I cannot here enter into full details of the curious and most instructive case to which I now refer, for they have formed the basis of a paper elsewhere. (See *Obstet. Soc. Trans.*, vol. xv.) It will suffice to say, that it occurred in the person of a hospital patient from whom I removed both ovaries. Both tumours were multilocular, and had one or two major with innumerable minor cysts, graduating down to the most minute size. The fluid contents of all were limpid, and what was evacuated from three or four cysts at the time of the operation, together with the solid masses of both tumours, did not weigh quite ten pounds. The right tumour seemed to be about one-fourth larger than the left, so that they were probably four and six pounds in weight respectively—small-sized tumours. Both pedicles were included in one clamp, and the patient made an uninterrupted recovery.

After removal, the most careful examination of the tumours failed to discover any remnant of the ovaries outside them, nor did I find any trace of either of the Fallopian tubes. The tumours were pearly white and glistening; but the thin parts of the major cysts had a peculiar transparency that I had never noticed in any other tumours before, and columnar bands stood out here and there in relief on the walls. I may say that the tumours had been of extremely slow growth; for I had had her under notice for nearly a year before the operation, and had not discovered any increase in the size of the tumours, though they had been in existence probably five or six years.

The interiors of the large cysts were lined with regular pavement-epithelium, and the walls seemed composed of fibrous tissue with some nucleated fusiform cells, probably involuntary muscular fibre. The smaller cysts were densely packed together, and at some places where they were of an uniform size, the tumours had much the appearance of huge white raspberries. I was struck with the resemblance the tumours presented to what I recollected of those in which Rokitansky and Ritchie had found ova, and I at once turned to Dr. Ritchie's admirable monograph and found that the tumours answered the descriptions completely. I, therefore, examined the contents of as large a number of the cysts as I could, and in every one, I think without exception, I found more or less distinct remains of an ovum.

It will serve my purpose best to quote at length from Dr. Ritchie's book, for our experiences are almost identical, and he also gives the observations of Rokitansky.

"In the first volume of the *Wochenblatt der Zeitschrift der K. K. Gesellschaft der Aerzte zu Wien*, Rokitansky describes the appearances observed in the *post mortem* examination of a woman, 26 years of age, who died with diseased ovaries. Both ovaries were affected. The tumour on the right side was as large as a child's head, that on the left as large as a man's fist. Both ovaries were composed of a number of cysts as large as a cherry, which, for the most part, lay closely packed together, here and there had become flattened by mutual compression, and occasionally even projected into each other. The surfaces of the tumours were thus slightly lobulated, and between the protuberances were seen, at intervals, cysts as large as a barleycorn, a pea, or a bean. These latter cysts, on being punctured, gave exit to a greenish-coloured fluid containing membranous flocculi, and in all of them the ovum was found. In each of them, however, the ovum was softened, very dull-coloured, easily disintegrated. The zona pellucida had for the most part lost its sharp contour, and, except in one case, no germinal vesicle was discoverable.

"As far as I am aware, this observation of Rokitansky was never publicly confirmed until July 1864, when the reporter to the *Medical Times and Gazette* of four cases of ovariotomy performed by Mr. Spencer Wells in the Samaritan Hospital, mentioned that, in two of the tumours removed, Dr. Webb and myself had been fortunate enough to discover many ova.

"The patient from whom the tumours in question were removed was 54 years of age, and had been for some time suffering from double ovarian disease. The tumours were easily extirpated, and the patient recovered. Each tumour was of the size of the head of a child 4 years of age. Each contained several large central cavities, and a number of smaller ones in the wall of the central cavity, the wall itself never exceeding one inch in thickness. In the *Medical Times and Gazette* for August 6th, 1864, Mr. Spencer Wells wrote as follows.

" 'The two tumours in question were examined directly after their removal by Dr. Ritchie, who pointed out to me, in each of them, a number of small cysts, which were evidently enlarged Graafian follicles. Knowing the great and long familiarity which Dr. Woodham Webb has had with the ova of various species of animals since his researches in conjunction with Barry, I asked him to examine some of the cysts, in order to ascertain whether they did, or did not, contain ova, knowing that, on this point, no higher authority could be appealed to.

" 'As one friend has suggested that we may have mistaken a blood-corpuscle for an ovum, there was evidently some reason for my caution; but I trust that the following note from Dr. Webb will set all such doubts at rest.

" ' "Both the tumours you sent me, after their removal from a woman 54 years old, were growths in excess of true ovarian structure. The multilocular character was produced by clusters of ovisacs of various sizes. Ova, with the other natural contents, were to be found in all the small sacs. The fibrous coats of the larger sacs were thickened, and had many other secondary sacs developed in them. The interior was lined with epithelium, which, in some instances, had, by parthenogenetic enlargement and successive budding of the cells, given rise to bunches of grape-like growths, repeated generations of imperfect ova."

" 'The whole, then, was nothing more than a reproduction in the human subject of conditions which are natural in some of the lower creatures. I suppose the description, in your orthodox pathological terms, would be, 'hypertrophy of the ovaries, with arrested development of the contents.' '

"This letter, coming from a gentleman of Dr. Webb's known experience, is of great interest. Dr. Webb evidently inclines to the belief that the ovum is only an altered epithelium-cell. He also seems to believe that the grape-like growths, those described further down as dendritic growths, are repeated generations of imperfect ova."

Dr. Ritchie's unfortunate death, and my want of acquaintance at that time with Dr. Webb, hindered me from becoming acquainted with their method of manipulation; but that which I devised for myself answered my purpose completely. It consists in slitting open the cyst freely with a cataract-knife over a conical glass, collecting the whole contents, and afterwards syringing out the cavity of the cyst gently with a solution of sulphate of magnesia in distilled water of a density something near that of the cyst-contents. The fluid with which the cyst is syringed out is allowed also to fall into the vessel, and the whole to stand for a few hours, at the end of which time a little flocculent sediment will have collected at the bottom of the vessel. This is to be carefully lifted by a pipette, deposited in a clean watch-glass, and the ovum searched for under the microscope. What I found in every case I could not, of course, assert was an ovum; but having found one or two specimens about which there could be no doubt, and in every case something that was more or less like one, I am perfectly satisfied that in those tumours every cyst was a dilated ovisac. The smaller the sac, the more perfect the ovum seemed to be, and consequently I assumed that these were the more recent growths. Not only were these dilated ovisacs in the periphery of the tumours, but they were found throughout its substance. In fact, it seemed to me as if, for a long period of her ovarian history, the ova had been garnered up in cysts instead of being shed in the usual manner. Her youngest child was 6 years old, and if we assume that an ovum is shed from each ovary monthly, then we should get the number of ova so retained as about one hundred and fifty. The number of cysts was, however, much greater, probably two or three times as many; so that we may choose between two explanations—either that the tumours had existed before her last pregnancy, or that more than two ova are shed in the month. My own belief is, that both these suppositions are correct; for, when speaking of ovulation at the beginning of the essay, I gave reasons for my belief that ovulation and menstruation had only a connection of coincidence. I am of opinion that ovulation takes place far more frequently than menstruation does.

It is a somewhat singular fact that the observation of Rokitansky has not been confirmed, as far as I have yet seen, by any others than Ritchie and Webb, and by my own case. Still more curious is it that all three cases are almost identical, presenting small multilocular tumours of slow growth, and that in all three cases both ovaries were affected. This inclines me to believe that, in these cases, we have to deal with a special kind of ovarian tumour, occurring rarely and differing from the ordinary adenoid growth. Whether this be so or not, further experience alone can show. Dr. Ritchie says, immediately following the quotation I have given above, that he subsequently succeeded in finding ova in some of the loculi of a large number of ovarian cysts, but never in a loculus larger than a cherry, nor in one that had jelly-like contents. This observation I cannot confirm; for, though I have made many searches in the endogenous and subjacent secondary cysts of ordinary polycystic tumours, I have never found an ovum or anything resembling one. Perhaps my method is defective. Dr. Ritchie further says that, when no ovum is to be found, a single minor cyst is to be seen embedded in one part of the wall, and he has thought himself justified in concluding that this appearance represents dropsy of the blastodermic vesicle. I have certainly seen such vesicles in the walls of small cysts, but I have as often found them multiple as single, and I have never seen reason to interpret them as Dr. Ritchie has done. My view of the origin of such growths I shall explain afterwards.

There cannot be a doubt that there are some ovarian growths due to dropsy of the whole or the greater number of the ovisacs produced—a true follicular cystic degeneration; but it would seem that these growths are rare.

[*To be continued.*]

EXTRACT FROM THE PRESIDENT'S ADDRESS.

Delivered at the Annual Meeting of the Lancashire and Cheshire Branch.

By JOHN SKAIFE, Esq.,
Consulting Surgeon to the Infirmary, Blackburn.

BLACKBURN is a healthy town, so far as freedom from epidemics is concerned; but, owing to the extreme moisture and the long prevalence of the east and north-east wind, we are troubled with rather a superabundance of affections of the mucous membranes, as bronchitis, quinsy, diarrhœa, phthisis pulmonalis, rheumatism, and all of universal occurrence, to which may be added affections of the heart, and sudden death as a natural consequence. Bronchitis has superseded pleuritis, of which latter disease we now rarely meet with a case; still more rarely do we encounter the formerly universal remedy of bleeding from the arm with a lancet.

Respecting the diseases of this part of Lancashire, a great change has taken place in my time. When I first came to Blackburn, scrofula prevailed to a frightful degree, owing in a great measure to the trade and the working of the staple of the town. Hand-loom weaving was followed by almost the entire population; to every cottage was joined a weaving shop; in this, on the bare floor, were placed the looms (hand-looms, of course, the power-loom being yet unborn or unknown, as it did not come into active operation for some time). The cause of the universality of scrofula is sufficiently obvious. Seated for five days out of the seven days of the week in these wretched weaving shops, in a cold, humid atmosphere, could anything be expected but scrofula in its worst and most severe forms? We were continually lopping off legs for what was popularly called "white swelling of the knee"; and then the scars in the necks of the people, from the carelessness in looking after them, aggravated the disease extremely. But a great change has taken place. The people, instead of working in cold miserable shops, now follow their occupations in well warmed, well ventilated weaving sheds. We never had, and most probably never can have, unmitigated good. Varix or varicose veins have very much increased. Here, again, we see cause and effect strikingly manifested. The people now stand for the five days, or five days and a half, and thus produce the swelling of the veins; but this, when compared with the horrors of scrofula, is really a blessing.

The discovery of the principles of the many of our drugs has added tenfold to their value—I would instance quinine, morphia, iodine, etc. My acquaintance with iodine arose in rather a singular manner. I was a pupil at the joint hospitals of Guy and St. Thomas. We, the pupils, were going round with Mr. Green, the surgeon of the day. We came to a young man who had a large bronchocele. "Gentlemen", said Mr. Green, "this is a remarkable case. It is bronchocele in the male, an unusual occurrence, and I am administering iodine." I said to the man next to me, "What is iodine?" "I don't know", said he, and the question ran through the whole class, to which the same answer was returned by all. No one knew. This was too important not to have solved. Mr. Green, though a perfect gentleman, and very courteous, had a certain austerity of manner which none of us liked, so we drew short and long cuts with straws, and to inquire from him fell on my unlucky head. To refuse would have led to unpleasant consequences, for half a dozen stout fellows would seize hold of the delinquent and bump his *derrière* against the table. I went up to Mr. Green, and said: "In my own name and that of the class, I am requested to ask what is iodine." He called us together and said: "You are aware, gentlemen, that bronchocele has hitherto been cured by the administration of burnt sponge. It is supposed, doubtless correctly, that the curative principle of the burnt sponge is this iodine, which has lately been discovered by Dr. Coindet of Geneva, and you will find an ample account, chemically and medicinally, in the *Journal de Chimie*." Since then, I have employed it largely, and especially in the form of its invaluable salt, the iodide of potassium, certainly one of the most important additions to the modern *Pharmacopœia*.

I may mention a circumstance connected with the manufacture of the district; I mean the admission of steam into the weaving sheds. Steam in itself is anything but injurious. I have examined some of the bleaching works; there the people work all day long in the steam. The women are clad in a chemise and petticoat; the men in a shirt and a pair of canvas trousers. When the day's labour is over, they take this off and replace it with their usual garments. They walk home in their dry clothes, and they appear to me to be a healthy race. But the scene changes when we come to a weaving shed; the clothes are not changed, and, if steam be extensively admitted, the clothes become saturated with moisture; and, in walking home in the cold wet evenings, often to a considerable distance, much mischief may be done, and the seeds of future disease laid. Many of the mills, I understand, only admit the steam in the night; by this all injury to the health is avoided. It appears only to be a question of degree and time.

Another circumstance to which I would refer is the almost universal decay of the teeth of the factory operatives. Beginning from an early period during the forty years that I held the office of certifying surgeon to the factories, I noticed this decay of the teeth very closely, and I am considerably within the mark when I say that there would not be more than one case of entire teeth to two hundred cases in which the teeth were more or less decayed. What is the cause of this strange and injurious state of things? May not the change of diet be a powerful cause? When I say change, I mean from the milk to the tea diet. Forty years ago, the universal breakfast was milk and porridge. Since then, the population has doubled, and the milk-farms have rather decreased. Now the universal breakfast is tea or coffee, tea being preferred. From my long connection with the factories, I had ample opportunities of examining into the state of things. It was really pitiful to see the miserable beverages misnamed tea or coffee. The operatives, especially the more distant ones, brought their food with them. Generally each had a tin can or kit. A minute pinch of tea, or small teaspoonful of ground coffee, was thrown into the can, and a pint of boiling water poured upon it. This, though bearing the name of tea or coffee, was in reality slightly coloured warm water.

Forty years ago, we had large bodies of troops in the town, and, the accommodation in the barracks being limited, many of the soldiers were quartered in various cottages. Two men were lodging in a cottage. They slept together in one room. One of them had been out on a Saturday night; had taken some drink, and was returning home, when four blackguards attacked him and beat him severely. He went to his lodging, and was loading his fire-lock when his comrade awoke, and, jumping up, took his fire-lock from him, and said, "What the deuce are you doing?" "I am going to shoot some of those devils who have been beating me." His comrade unloaded the fire-lock and made him get into bed. Unluckily, the quiet man fell asleep; the other, having loaded his fire-lock, went out, and, seeing a young man on the other side of the street, he fired at and shot him. The ball went through his left side close to the apex of his heart, through the left upper arm, smashing the humerus. I was called up and went. The man was laid on his back apparently dying. He cast a ghastly, despairing look at me; pulse he had none, and was quite cold. I mention this case to show the wonderful effect of hope. I kept my finger on his arm. "Come, come", said I, "I'll cure this fellow." The pulse rose with a bound. "No, will you though"? he said. "I know you can if you will." A slight flush came on his countenance; he recovered without a single bad symptom.

I now relate another case, which shows what pluck an English lad of 17 is sometimes endowed with. James Nightingale, the son of a farmer at Audley, close to Blackburn, had gone to a night-school, and was returning home, when he was attacked by a great rough blackguard two years older than himself and much stronger and heavier built. He knocked Nightingale down, jumped on him, and kicked him until he was insensible. Nightingale crept home as well as he was able and went to bed. Now, the old man was very stern, and the poor lad durst not complain. He rose early, milked the cows, delivered the milk, came home, and laid himself down on the bed and died. They called him to breakfast, but, not being answered, they went upstairs, and there he lay dead. The affair made a noise, and the coroner sent me to open the body. The intestines were matted together with incipient peritoneal inflammation, and had burst in several places. How could this poor lad survive so long, with his abdomen in such a terrible condition?

The wooden-soled clog was formerly a dangerous weapon of offence, but I have now to say a few words in its favour. I believe it to have been a most powerful element in preserving the health of the people; walking through the wet and dirty streets, and having to wait outside the warehouses often for hours, their feet were always dry, for the damp could not penetrate through the wooden sole. This is, of course, the principal value of the clog, but another recommendation is its extreme cheapness; the cost of one pair of shoes would procure three pairs of clogs.

In conclusion, I can only say you are right welcome to our town. We have little to show you in the way of fine buildings, antiquities, etc. Blackburn is a great commercial emporium, in which large fortunes have been and are made. . . . I have now said my say. Had health permitted, I should have said more.

THE GAINS DERIVED FROM THE USE OF THE LARYNGOSCOPE.

By PUGIN THORNTON, Esq.,

Assistant-Surgeon to the Hospital for Diseases of the Throat, and Surgeon to the St. Marylebone General Dispensary.

THE interesting article by Dr. G. Johnson has served to call attention to the occurrence of paralysis of the vocal cords from pressure on the pneumogastric and recurrent nerves, and has especially raised the question whether pressure on one pneumogastric nerve can cause paralysis of the muscles on the opposite side of the larynx, in addition to that well known to be produced on the side on which the actual disease exists. Although I am sure that no one, on consideration, will doubt the accuracy of the observation made by Dr. Johnson and Dr. Bäumler, few will be disposed to accept Dr. Johnson's interpretation of the phenomena. The doctrine of reflex paralysis is purely hypothetical, and has never been accepted by those who have most carefully studied the subject. Dr. Johnson appears to think that, because the action of the laryngeal muscles is bilateral, the disposition to reflex paralysis under certain circumstances is very great. Analogy does not, however, furnish any support to such a theory. No muscles are more essentially bilateral than those of the two eyes and eyelids; but we do not find paralysis of the muscles of one eye or eyelid, when caused by direct injury, producing paralysis of the muscles of the other eye or eyelid by centripetal irritation. In none of the numerous experiments performed by Reid, Claude Bernard, and others, has division or irritation of the recurrent or pneumogastric nerve produced paralysis of the muscles supplied by the corresponding nerves on the other side. With regard to the illustration drawn from Dr. Johnson's case of tetanus, it appears to me that, to have any bearing on the question, the muscles on the opposite side to that on which the injury occurred ought to have been paralysed, but this was not the case.

The paralysis of the opposite vocal cord in the two cases referred to was probably due to some condition entirely independent of the aneurisms which existed. Idiopathic disease of the muscle, an affection of the crico-arytenoid articulation, or an enlarged cervical gland, perhaps no larger than a pea, might have caused the paralysis, and these are all more probable causes than the hypotheses which have been invoked.

With regard to the cause of the curve which sometimes is seen in the vocal cord on the paralysed side, Mr. Browne has fallen into an error in endeavouring to afford an explanation. The recurrent laryngeal nerve supplying all the intrinsic muscles of the larynx, it might be expected that all the muscles would be equally affected; but this is not generally the case, for both laryngoscopic examination and *post mortem* evidence show that the abductor usually suffers more than the adductor. When the muscles are equally affected, the vocal cord is fixed in a straight line midway between abduction and adduction; but, when the crico-arytenoideus lateralis is greatly atrophied, the "curved" appearance is produced. The action of the crico-arytenoideus lateralis is to adduct the vocal cord, but it acts on the vocal cord only through the arytenoid cartilage, which, when the muscle is brought into action, is rotated inwards in a kind of circle, the articulation being the pivot, or centre of the circle, and the anterior extremity of the cartilage, or vocal process, being the extremity of the radius. In quiet inspiration, the glottis, as is well known, has a lozenge shape, the outer angles of the lozenge corresponding to the vocal processes. When the crico-arytenoideus lateralis is thrown into action, this angle disappears; when the muscle is paralysed, the receding angle of the lozenge remains as a constant condition. When, however, the paralysis exists, and the crico-thyroid is no longer opposed by the crico-arytenoideus posticus, the angle of the lozenge is lost and a curve remains. Anyone who takes the trouble to dissect a larynx will at once see that no action of any fibres of the arytenoideus proprius could possibly produce the curve. The action of this muscle, when combined with that of the crico-thyroid, must have the opposite effect, and entirely do away with the curve. The exact position of the affected vocal cord depends on the relative degree in which the various muscles are implicated, and even on the degree in which special fibres of each muscle are involved. I saw a case only a day or two ago, in which the vocal cord was not only tense, but actually rotated at its anterior extremity, so that its free edge was directed completely upwards.

THE GAINS DERIVED FROM THE USE OF THE LARYNGOSCOPE.

By ARTHUR TREHERN NORTON, F.R.C.S.,

Surgeon in Charge of the Throat Department, St. Mary's Hospital.

THE last number of the JOURNAL contains a reply from Dr. George Johnson, and another from Mr. Browne to my article of June 20th. With regard to the former I have nothing to add to what I have already said, more than to thank Dr. Johnson for bringing the cases forward, and to say that in future similar cases will be searched for and will be thoroughly investigated, not only by myself, but no doubt by all who are familiar with the use of the laryngoscope.

With regard to Mr. Browne, I shall proceed to point out the errors which he has made, and I would advise him that communications written simply to contradict without explanation, and without respect to the opinions of others, tend to retard rather than advance the subject under discussion. Mr. Browne states in one part of his communication, that being absent from town he had not read the article which called forth my remarks; in other words, that he was dealing with a matter with which he had not thoroughly acquainted himself. Without that information I should have concluded the same after reading his communication.

He refers to my attempting to prove Dr. Johnson wrong, and to my questioning his observations and diagnosis. If Mr. Browne had read the article, he would have seen that I took Dr. Johnson's observations upon the decreased mobility of the muscles of both sides of the larynx as undoubtedly correct, and as that gentleman stated that the fact could not be accounted for, I gave my opinion.

When Mr. Browne remarks that it cannot be for an instant supposed that such a careful observer can be mistaken in diagnosis, he shows his ignorance of life, for there never was, and probably never will be, a man incapable of being mistaken in diagnosis. Mr. Browne then states that anatomy shows exactly the contrary to what I have explained, and that I have not been more fortunate in my description of the laryngoscopic image, or in my explanation of the distortion.

In reply, I would say it is impossible for him to controvert my anatomical explanation, and his expression "more fortunate" I consider inapplicable.

My communication contained nothing about the *laryngoscopic image* or the *distortion* more than the statement that the tension and immobility of the cord could be detected by the laryngoscope. The curvature of the cord which occurs in paralysis, and which he has taken a good deal of unnecessary trouble to explain, was as well known to me as to him; but it was no point in the discussion, and to describe that fact, with its why and wherefore, would have materially lengthened my letter without an object. (I may here say that I differ *in toto* from him as to the cause of the curvature of the cord, but shall not discuss the matter at the present time.)

Next, with regard to the hoarseness. Here, again, he allows me no opinion upon the subject, contradicts me, and remarks that the voice is hoarse because there is always an interval between the cords. Now, either he has expressed himself very badly, or he will be surprised to hear that there is always an interval between the cords when any sound is being emitted, whether hoarse or clear. Such reasoning leads to the conclusion that everyone who can speak is hoarse. On the other hand, no more common cause of hoarseness exists than catarrh of the larynx, in nearly all of which cases the cords come together without any interval, whenever the individual desires to approximate them.

Lastly, Mr. Browne loses himself in the aid we shall have to diagnosis when we shall be able to distinguish complete bilateral paralysis of abduction due to involvement of both recurrent laryngeal nerves, from the same condition due to involvement of the pneumogastric and recurrent laryngeal nerves of one side only. His readers would have been much interested, I have no doubt, if he had extended this part of the subject, and had shown how the difference could be detected, and what would be the gains derived.

AN IMPROVED SPECULUM FOR APPLYING REMEDIES TO THE EXTERNAL AUDITORY MEATUS.

By F. M. PIERCE, M.D., L.R.C.P.Lond.,
Honorary Medical Officer to the Manchester Ear Institution.

SOON after commencing the practical study of aural diseases, I was struck with the difficulty of accurately applying remedies to the membrana tympani and walls of the external meatus. With hitherto existing means, only a rough uncertain manipulation is carried out. I am not acquainted with any instrument in use by aural surgeons, at home or abroad, like that I am about to describe.

The speculum which I have designed is simple, and can be adjusted to and kept with an ordinary Brunton's speculum. It is somewhat conical in shape, and measures, from the apex *a* (Fig. 1) to the base *b*, 1.7 inches in length. The base from *c* to *d* (Fig. 1) is 1.4 inches long. It fits into the body of a Brunton's speculum by means of the projecting rim *b*, and which is, of course, of the same size as that on the three specula usually supplied with Brunton's auriscope.

The aperture *a* (Figs. 1 and 2) is oval, and measures three-tenths of an inch in its long diameter. On the projecting rim *c* and *d* (Figs. 1 and 2), which measures from the projecting tube *b* three-tenths of an inch, there is an opening, *e* (Fig. 2), through which a fine probe or other instrument charged with caustics and bent to the curve of the speculum, may be introduced, and applied to any part of the membrana tympani, a polypus, or other spot requiring topical application.

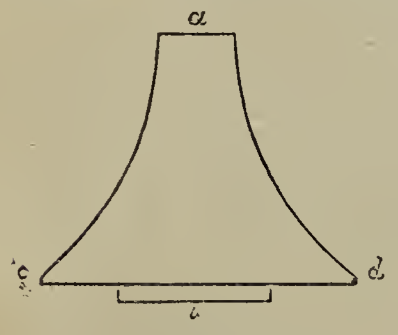

Fig. 1.

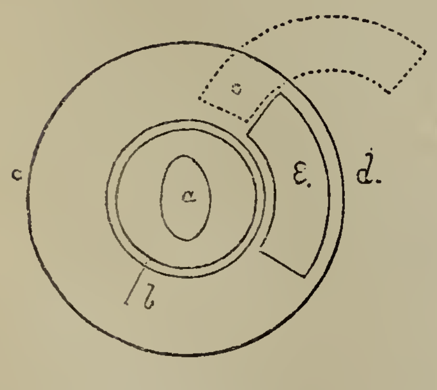

Fig. 2.

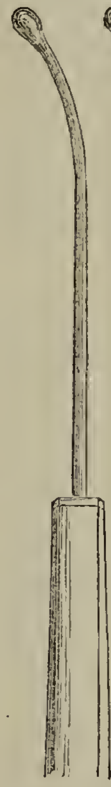

Fig. 3.

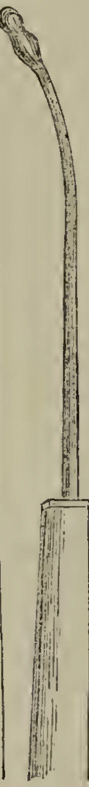

Fig. 4.

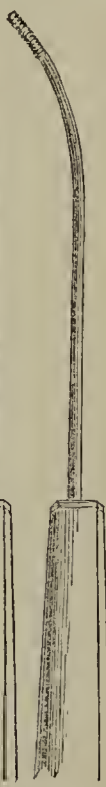

Fig. 5.

The aperture *e* can be made of any size. I find six-tenths of an inch in length sufficient to allow a free movement of the instrument to use. In the first speculum made for me, there was a small cover fixed by a screw hinge, to slide over the aperture when not used. This was found unnecessary, and has been omitted in the specula recently made. The entire speculum is electro-plated, and costs about eight shillings. Owing to the injury done to the inner surface of the tube, especially at the narrow end, by the various caustics employed, I have found it desirable to substitute gold for silver plating, and intend having a speculum constructed with the apex-half of the cone formed of platinum.

For applying caustics through this speculum, I use platinum-wire probes, mounted in ivory handles, like ophthalmic instruments.

Fig. 3 is the ordinary shaped probe with bulbous extremity.

Fig. 4 has a double enlargement, and is useful for conveying a single drop of any solution to the part selected.

Fig. 5 represents the platinum-wire probe, the extremity being cut with a thread like a screw, for holding a layer of wool soaked in the material to be used.

By means of this speculum, I have been able to apply remedies to the remains of polypi after extraction, without touching the walls of the meatus, or any part other than that intended.

With a curved knife, such as is generally used for the purpose, the membrana tympani can be punctured through this speculum with great precision. Messrs. J. and J. Wood, Manchester, are the makers of this speculum.

ABSTRACT OF LECTURES ON THE SURGICAL TREATMENT OF ANEURISM.

Delivered at the Royal College of Surgeons of England.

By T. HOLMES, F.R.C.S., Professor of Pathology and Surgery.

LECTURE III.

IN this lecture, the subject of inguinal and femoral aneurism was resumed. The lecturer first remarked on the marked contrast between the great success which had attended the "rapid" method of pressure as applied to the aorta or common iliac artery for the cure of iliac or femoral aneurism in the cases recorded in the hospital table already referred to, and the great amount of failure which had prevailed among the cases treated on the ordinary method of pressure without anæsthetics. He then spoke of the treatment by rapid pressure: its rise in the celebrated case of aortic aneurism treated by Dr. W. Murray, and the experience of surgeons since that time. This experience was collected in a table showing all the cases known to the lecturer of aneurisms below the diaphragm treated by "rapid pressure", *i.e.*, by an attempt, whether single or repeated, to cure the aneurism in a single sitting by pressure applied under chloroform. These cases were twenty-three, and they were all from English and American sources, a fact which made the lecturer surmise that he might have missed some in continental practice: six of these were (or were supposed to be) aortic aneurisms. The operation was successful in three, fatal in two, and mitigatory in one case. Ten were iliac or ilio-femoral; of these, seven were cured; in the other three, the attempt failed; and in all, ligature was fatal. Five were femoral; two were certainly cured; one was also cured, whether by this or by the previous treatment was doubtful; in one the operation was fatal; and the fifth died after ligature. The list was completed by two cases of popliteal or femoro-popliteal aneurism; both cured. This list of cases was used to show that the rapid method of pressure has been proved indisputably superior to the Hunterian ligature in the case of those arteries (viz., the aorta and common iliac) where the operation is very fatal, but that there is at present no proof of its superiority to the ligature of the external iliac, and still less to that of the femoral. The fact also that the artery has never been successfully tied after the attempt at cure by rapid pressure is worth notice, though the cases as yet are few.

After a few words about the less usual methods of treatment of femoral aneurism—as manipulation, galvano-puncture, direct pressure, and distal pressure—all of which have been occasionally successful, the lecturer turned to the treatment of arterio-venous aneurism in the thigh. Thirteen cases were referred to, one of which (Beaumont's) has furnished a preparation to the College Museum. The preparation from another (Mr. Oliver Pemberton's), recorded in the forty-fourth volume of the

Medico-Chirurgical Transactions, was also produced, and the history commented upon at length; as was also Perry's case (*Medico-Chirurgical Transactions*, vol. xx) of spontaneous arterio-venous aneurism of the femoral vessels, the preparation from which is still in the Museum of St. Bartholomew's Hospital. The records of several of the other cases were also reproduced. From all these data the following rules of treatment were deduced. 1. The object of treatment must be to obliterate the arterio-venous orifice; and this may be accomplished, when the disease is recent, by pressure executed according to Vanzetti's plan, with one forefinger on the orifice, and with another on the artery above—a plan which is more likely to succeed in varicose aneurism than in pure aneurismal varix. 2. In old-standing cases, the artery above the communication becomes so thinned and dilated, that it is hopeless to operate upon it; and therefore early treatment is necessary if the disease is to be cured. 3. The Hunterian operation has always failed in this form of arterio-venous aneurism, as far as present experience extends. 4. The old operation, *i. e.*, the ligature of the artery above and below the opening, has proved successful when practised early, but is a very severe and dangerous operation. 5. The artery has been tied successfully above and below the tumour, without opening the latter, by Mr. Spence; but the operation is very difficult, and is not always feasible. Hence a trial should first be given to Vanzetti's plan of pressure, on the failure of which, the case must be treated either by Mr. Spence's method or by the old operation; but, in old-standing cases, if pressure fail, only palliative treatment is indicated.

The next topic was aneurism of the profunda femoris, of which several cases were cited, and some preparations were placed on the table. The effect of these was to show that the disease may, in well-marked cases, be diagnosed from aneurism of the femoral on the one hand, and from malignant tumour of the femur on the other, though it has many points of resemblance to both; and that it may be treated with success by pressure (of which two alleged cases at least are on record), or by ligature of the artery above, either the common femoral or the external iliac, as the surgeon judges best; but, in traumatic aneurism with an imperfect sac, or in ruptured aneurism, or in arterio-venous communication (if in the latter, it is really necessary to operate), the old operation, by laying the sac open and tying both ends, is to be preferred.

After relating a case of spontaneous aneurism of one of the secondary branches (in this instance, the external circumflex), and remarking that affections of such small vessels, when not under the influence of pressure, should be treated by the old operation, the lecturer turned to traumatic affections of the smaller vessels, such as the well known case of Liston, where a traumatic aneurism formed on a branch of the femoral, or that of Lawrence, where the circumflex iliac was wounded. In both these cases, the external iliac was tied with a fatal result; but cases are recorded which show that it is not impossible to diagnose the vessel injured, and that the proper treatment, when pressure fails, is to cut down and tie the wounded artery.

Finally, the topics of the two lectures were resumed in the following ten propositions.

1. The operation of ligature of the external iliac artery has been, on the whole, fairly successful, as evidenced by a very small mortality in uncomplicated cases of hæmorrhage, and a mortality of about one-fourth in published cases of aneurism—a conclusion supported by the unpublished records of hospital practice, though a few cases of recurrence of the aneurism have occurred.

2. The operation on the superficial femoral for aneurism situated in Hunter's canal is a very successful operation.

3. The ligature of the common femoral is a perfectly justifiable proceeding, though whether it be more or less trustworthy than that of the external iliac artery, we are not as yet in a position to judge.

4. Ruptured aneurism in the thigh has been treated with a large amount of success by the old operation.

5. Ilio-femoral and femoral aneurisms have been treated with a very fair proportion of cures in the few instances on record by rapid compression applied to the aorta or to the common iliac; but there is no evidence to show that this treatment is less dangerous or more successful than the operation on the external iliac artery, when the latter is feasible.

6. Compression, especially digital pressure, has been applied to the treatment of inguinal and femoral aneurism with striking success, though in what proportion of cases we do not as yet know; and the comparative ill-success of this method in our hospital-practice is more calculated to raise doubts of the efficiency of the application than of the soundness of the method itself.

7. In rare cases, direct pressure, or even manipulation, may be advantageous.

8. Arterio-venous femoral aneurism should be treated by double compression, applied to the vein and artery, which failing, Mr. Spencer's method of tying the artery above and below is the most hopeful measure, and, when this is impracticable, either the old operation should be performed, or the case abandoned.

9. Spontaneous aneurisms of the profunda have been diagnosed and successfully treated by compression.

10. Recent traumatic aneurisms of branches of the external iliac or femoral are best treated as wounds of these vessels—*i.e.*, either by compression or by ligature at the wounded point.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

Notes on Practice in the New York Charity Hospital. —*Hospital Gangrene.*—Hospital gangrene is treated at the New York Charity Hospital in the pavilion, and not allowed to remain in the hospital building. Two principal methods of treatment are resorted to. In one, pure carbolic acid is applied thoroughly to the gangrenous surface. This is followed by a charcoal-poultice, which is allowed to remain on for twenty-four hours, and after its removal the surface is cleaned of the sloughs and washed thoroughly. Pure acid is again applied. After the third application, if the progress of the disease have been stayed, the ordinary solution of carbolic acid is used. By the other method, pure bromine is used instead of the carbolic acid, but the remainder of the treatment is the same. Conjoined with these local applications, tonics and stimulants are used. If the patient suffer from pain, opium is administered.

Use of Sweet Oil as a Dressing for Wounds.—Dr. J. W. Howe has recently introduced ordinary sweet oil for the treatment of all kinds of wounds. It has several advantages over any of the other dressings in use, and apparently yields better results. It keeps the air from the wound, and at the same time is grateful to the patient. It also promotes healthy granulations. The mode of application varies with the variety of wounds. In necrosis, after the sequestrum is removed, the cavity is filled with the oil, and a lint-tent introduced. Every day the oil is renewed. In one case of necrosis of the lower jaw this procedure was had recourse to, and, shortly afterwards, the patient was attacked with facial erysipelas; but the side of the face which had been operated on was not affected. In incised wounds, the edges are brought together, and lint soaked in oil is used as an external dressing.

Chancroids.—Iodoform is used as a dressing for chancroids, in the proportion of one part of glycerine and one of iodoform. This is applied to the ulcer twice in twenty-four hours, and appears to be more satisfactory than the usual applications.

Painless Method of Cauterising with Nitric Acid.—It is found that chancroids can be cauterised with nitric acid without causing severe pain, by first applying to the sore pure carbolic acid. The carbolic acid serves as a local anæsthetic, and prevents the nitric acid from causing pain which is not easily borne by the patient.—*New York Medical Journal*, May 1874.

PATHOLOGY.

Congenital Rachitis.—The term congenital rachitis is usually applied to the condition in which new-born children are found to have the shafts of the bones of the limbs thickened, bent, often broken, the epiphyses swollen, soft, and quite cartilaginous. While some of those cases are to be regarded as true intrauterine rachitis (called by Winkler fœtal when recovery has taken place before birth, and congenital when it is still going on), others are to be placed in a separate category. H. Urtel, in an inaugural dissertation (Halle, 1873), relates a case in which all the epiphysial cartilages were extraordinarily swollen and of a soft gelatinous consistence, while the diaphyses were much ossified, and were remarkably thick and short. The portions of the skeleton not formed from cartilage were also characterised by a remarkable bony development. Microscopic examination of the epiphyses showed small cartilage-cells lying confusedly together, becoming flatter towards the diaphyses, especially in the peripheral portions, and finally passing into a layer of connective tissue, which insinuated itself, from the inferior layer of the periosteum, between the epiphysis and diaphysis. Only in the most central parts did the cartilage and bone lie in direct contact, and here cells like large vesicles were found in the calcified cartilage. There was evidently here a disease of the epiphysial cartilage, commencing with arrest of the growth of the epiphysis; while the periosteal growth at the same time appeared to be increased. Urtel proposes the provisional name of pseudorachitismus for this condition.—*Centralblatt für die Medicinischen Wissenschaften*, April 18, 1874.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 37, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 4TH, 1874.

HOSPITAL SUNDAY IN LONDON.

IT may be assumed that the sums collected on Hospital Sunday have now all found their way to the Mansion House, and yet by the latest announcements the total falls considerably below that which was realised last year. No doubt some private donations will still be paid into the fund; but, even so, the amount will not reach the £27,000 which was gathered in 1873. This cannot fail to be a disappointment to all who were interested in the matter, and very lively regret has already been expressed. Last year the sum collected could not be regarded as large, considering the vast extent of the metropolis and its enormous wealth. But on the first occasion many extenuating circumstances could be pleaded: the idea was new, at least in London; the Committee had but little time to organise the movement; and many clergymen had made their arrangements for the year before they were asked to aid the simultaneous collection. All this and much more was said to account for the relative smallness of the sum received in 1873, compared with what has been obtained on similar occasions in Liverpool, Birmingham, and elsewhere. But this year none of these pleas can be urged. The scheme was no longer new; the committee was well organised; and the clergy were invited to co-operate in abundance of time. This makes the disappointment all the greater, because it looks as if there were causes at work which might gather strength year by year, and, ere long, make the Hospital Sunday in London a complete failure. It may be worth while to try to analyse these causes, for it is possible that, if once ascertained, some remedy might be found for them.

First among the difficulties must undoubtedly be placed the enormous size of the metropolis, and the labour of organising a great movement which is to cover the whole of its vast area and to reach the masses of its dense population. This we see in other matters besides charitable collections. We find it notably in sanitary arrangements, and in the periodical outcry for better municipal government. In such instances as these we can invoke the strong arm of the law, and can enforce concerted effort by Acts of Parliament. But this is out of the question in advocating a Hospital Sunday Fund. It is of the essence of such a collection that it be entirely voluntary.

Another difficulty may be found in the great number of medical institutions which claim to participate in the Fund. Some of these are of a very doubtful character; and it was curious to notice with what haste the speculative hospitals and dispensaries put up on their walls the Hospital Sunday placards, as if they were fully conscious of their own equivocal position, and were glad to parade them as a kind of guarantee of their respectability. But the fact that such hospitals shared in the Fund, made some persons very reluctant to contribute to it, and thus introduced an element of weakness. Again, there are many churches and chapels which have their own pet institutions, to which they have hitherto contributed liberally; but when their collections were thrown into a common fund, they had the mortification of seeing that the institution which they valued had received only a trifling subsidy, and so they determined in future to have nothing to do with the Metropolitan Fund, but to make their own collections, as heretofore, for their own favourite medical charities.

These are, as it appears to us, the chief difficulties in carrying out the Metropolitan Hospital Sunday, and each of these difficulties is many-sided, and presents a formidable array of obstacles for the Committee to deal with. In all these particulars, provincial towns have the advantage compared with the metropolis. They are not too large to admit of being organised, even for a charitable purpose; and the number of their hospitals and dispensaries is limited, and the character of each is well known to the public. Possibly, if the Metropolitan Hospital Sunday Committee were to examine into the real merits of different institutions, and were to give or withhold their support according to the *bonâ fide* character of the charity and the real need which might exist for each, they might conciliate some who now look askance upon the movement; and undoubtedly they would confer a boon upon society by detecting and discouraging mere professional speculations. In this manner one of the difficulties we have alluded to might be met; but for the other two we are unable to suggest a remedy.

Last year, some special dissatisfaction was created by the way in which the dispensaries were dealt with, and it is possible that some clergymen may have stood aloof on that score. The dissatisfaction was, no doubt, well founded; but the Committee have done everything in their power to remove it, and this can scarcely now be urged as a ground of dissent.

If the Hospital Sunday should, after the experience of a few years, prove to be a failure, it will be matter for sincere regret. In these days, there is a loud cry for the organisation of charity. The rich are not unwilling to give their money for the benefit of the poor—far from it—but they are very desirous that it should be well and carefully bestowed. Society is beginning to realise the injury that it does to itself by indiscriminate charity, and the report which was published by the Committee of the Hospital Sunday Fund led us to hope that it might be the means of organising the medical charities of the metropolis, and of securing those advantages which would arise from organisation, namely, the liberal support of all hospitals, dispensaries, etc., which are needed to supply the wants of the poor, and the discouragement of all institutions which are misleading the public and discrediting the medical profession.

CRIMINAL LUNATICS AND LUNATIC CONVICTS.

IN the House of Commons on May 15th, Mr. Mitchell Henry, the member for Galway, moved a reduction by £14,000 on the sum proposed (about £32,000) for the Broadmoor Criminal Lunatic Asylum. He did not for a moment question the efficiency and the management of Broadmoor; but, considering that the Dundrum Asylum, near Dublin, is for a precisely similar class of persons, and is carried on at about £14 per head less, he thought that, by lowering some salaries and reducing the staff of attendants at Broadmoor, a very large saving might be effected. The larger and better paid staff of attendants is, indeed, the chief cause of the difference in cost between the two asylums; thus, in Broadmoor there are two attendants to eleven patients, but in Dundrum the proportion is two to sixteen, and the wages at the latter asylum are quite 40 per cent. below the former. This remark, however, does not apply to the medical element, the cost of which per head at Broadmoor is £2 : 14 : 8, whilst at Dundrum it is £3 : 6 : 1. The rate of pay at Broadmoor was guided by the pay of warders in convict prisons, and it would have been better if those at Dundrum had looked nearer home, and taken a lesson from the Mountjoy Prison, where the amount of pay (nearly £18 per head) is greater than at Broadmoor.

There can be no doubt that the pay at Dundrum, being below the market value, is the cause of great inconvenience from constant changes in the staff; whilst the inadequacy as to numbers accounts for the much larger proportion of escapes from Dundrum; thus, the average per centage of patients who have escaped and not been recovered is more than twice as great as at Broadmoor, the average number of patients being taken from the dates of opening of the two asylums, whilst that the extra supervision at Broadmoor has not been detrimental to the patients, would appear from the death-rate being about one-half that at Dundrum. (*Vide* Report, November 7th, 1873.)

Mr. Henry was, besides errors in his statement of the items of expenditure, incorrect in his account of the constitution of the governing body of Broadmoor, for at no time was it under the management of the Director of Convict Prisons, but it is (by a special Act, 23 and 24 Vict.) under a Council of Supervision nominated by the Secretary of State; and the effects of the Irish system, by which the Inspectors of Lunatic Asylums are also (as they themselves say) the managers of Dundrum Asylum and report on their own management, are seen in the difference of the numbers of two classes of patients at Broadmoor and Dundrum

Mr. Walter, in the course of his speech, in answer to Mr. Henry, alluded to these two very distinct classes of insane persons to be found in Broadmoor; and here the whole gist of the question lies, explaining as it does the reason for the excessive precautions taken at Broadmoor, to which much of the expense at Broadmoor is owing.

One class, for which Broadmoor was specially erected and opened in 1863, consists of "criminal lunatics", persons acquitted on the ground of insanity, or found insane upon arraignment, the order of the court being that they shall be detained during Her Majesty's pleasure. The other class, which may be called that of "lunatic convicts", consists of those upon whom a definite sentence of penal servitude has been inflicted, and who, having been sent to a convict prison, become insane during their confinement. These latter form twenty-five per cent. of the population at Broadmoor, but at Dundrum only ten per cent. The former class, criminal lunatics, are drawn from all grades of society, and, being insane before they became criminal, have, many of them, led most irreproachable lives before committing the crime into which their mental infirmity hurried them; though many are very violent and impulsive, requiring at times seclusion and always strict supervision, yet they in no respect differ from patients met with in ordinary county or private asylums beyond the fact that, having once committed a heinous offence, they are objects of greater suspicion. Should they recover, they are not sent back to prison; and, though the fear of recurrence of homicidal impulse necessitates great care in the discharge of those persons after recovery, still positive cures do occur. But the second class, that of "lunatic convicts", is drawn from the very lowest of the population; they are sent to the asylum on the order of the Secretary of State, and, in the event of recovery, are returned to prison to complete their term of sentence. Broadmoor is the recipient of those becoming insane, or successfully feigning insanity, in convict prisons; whilst such as become insane when under custody in the county or borough gaol are sent to the asylum of the county to which they happen to be chargeable. The presence of these troublesome customers in all places—Broadmoor, Dundrum, or ordinary county asylums—where, by inconvenience of building or want of accommodation, they are mixed with the "criminal lunatics" proper, is a serious evil, and requires immediate attention from the authorities.

These lunatic convicts constitute about 90 per cent. of those who escape: they contaminate and offend, by their depraved language and habits, all the other patients with whom they come into contact, having been trained and accomplished rogues and vagabonds before their reception into the prison: many, indeed, have been convicted on several occasions. They are artful and cunning beyond imagination, inciting to insubordination and restlessness those who would otherwise be quiet. The superintendent of any county asylum will corroborate these statements as to irregularities committed by these lunatic convicts received from the borough gaols, and of the difficulty and expense of thoroughly managing them. Naturally these persons require exercise, and, being as a rule strong and muscular, can only be quieted by hard manual labour, such as farming, handicraft, etc.; yet the staff required to superintend them has to be increased out of all proportion to the others, because of their antecedent villainous career. Irish experience bears this out, for the "lunatic convicts" are found to be troublesome when removed to Dundrum; and as the inspectors have a special fondness for this asylum (as they say), they admit as few and send back to prison as many of the convict class as they can. The result is seen by reference to the report of the directors of convict prisons for Ireland, who say that there are at Spike Island Prison persons subject to dangerous and uncontrollable delusions, for whom no proper provision is made. On page 21, Nineteenth Annual Report, the governor says: "The circumstances of this prison are unsuited for the special treatment of these men, whose example in an associated prison, both as regards discipline and industry, has a very prejudicial effect." There is no doubt that the persons alluded to ought not to be where they are without proper provision for their treatment, as insane persons, being made.

The fact of the necessity of separation of the two classes of insane criminals is recognised fully in Germany; and both Dr. Delbrück of Halle and Dr. Baer of Berlin, the two greatest authorities on the subject abroad, cannot conceive how the two classes should be treated alike. It being clear that Broadmoor, though well managed, as its opponents grant, cannot efficiently carry out the purposes for which it was originally founded, and that the chief element in its higher expenditure is due to the precautions necessary for supervising these insane convicts, whilst Dundrum is still more inefficient, from the greater number of escapes and higher mortality (due, perhaps, to the inadequacy of the pay to provide a constant and adequate staff of attendants), and from its not being large enough to accommodate the many persons who require special treatment and isolation from other prisoners, it may be worth considering what is the best remedy. There is no doubt that, by carrying out the original purposes of Broadmoor, and by reserving it for the class of "criminal lunatics" solely, it should be worked as economically (or nearly so, allowing for its isolated position and distance from town) as a county asylum, and with much better results, for there will be no inducement to malingerers to feign insanity in order to have the easier treatment of an asylum, inasmuch as the chief hope of ultimate liberation lies in the opinion of their sanity being justified by their good conduct and self-control. The existing arrangements at Broadmoor afford satisfactory accommodation for those detained during Her Majesty's pleasure; and, as the number of these is constantly increasing, room somewhere or other will have to be found for them, and this could be got in no better way than by removing to a separate institution the "lunatic convicts" now incarcerated there. It is scarcely necessary to say that all are agreed on the absolute need of separating the inmates of ordinary asylums from insane criminals of whatever kind they happen to be, and of giving these latter a treatment different from that of prisons, whilst at the same time recognising that they are both insane and criminal. The late Sir Charles Hood, who had large experience of insane criminals at Bethlem, advised a lunatic-ward in the prison just as there is an infirmary there; and Dr. Delbrück of Halle corroborates Sir C. Hood by saying that these lunatic convicts do not suit an ordinary asylum, because they are criminals, nor a prison, because they are insane; and he would have an asylum in connection with each single large prison standing in the same relation as a lazareth, *i. e.*, separated from it, but under the same medical direction. To this place, every criminal about whose mental state there was the slightest doubt (and he gives five per cent. as the proportion of insane prisoners) should be sent to serve his term. The institution should be separated from the prison, and have all the requisites for security and medical treatment. Another proposal is to unite stations for insane criminals with ordinary asylums. The plan of wards specially designed for insane convicts should contain means for carrying out individual separation of the riotous and insubordinate whose insanity is not acute, and at the same time admit of the efficient grouping of those whose mental condition renders association requisite and safe. Thus treated, the discipline by which alone lunatic convicts can be restrained may be enforced, and temptation to malingering lessened; for when the convict gets to know that his lines will not fall in more pleasant places by removal to the asylum, he will have no object in shamming; and the proposition of Dr. Wilkie, Director of the State Asylum at Auburn, is worth considering—viz., that the time spent by a patient in the asylum should not be deducted from the term of sentence, because, as the law withholds all punishment when a person is insane, such a treatment can scarcely be called penal servitude. At any rate, if it became known that such a rule would be applied to all whose insanity was doubtful, a great check on malingering would be inflicted. It is much to be hoped that the separation above indicated, so strongly recommended by all those who are practically concerned in the management, will be speedily brought about.

THE CEREBRAL POWER IN MAN.

THE last Tonar Lecture was delivered by Dr. Brown-Séquard, at Washington, April 22nd.

According to the report in the *Medical and Surgical Reporter*, he commenced by saying that he hoped that his views, being somewhat novel, would command attention. The facts on which he would dwell were new, probably would not be generally accepted, and, perhaps, would not be easily understood by those not familiar with medicine.

Have we two brains? and, if so, why not educate both? The views of science upon this subject were different from his. The left side of the body was the side affording volition to the brain, and, *vice versâ*, the right side of the brain afforded volition to the body. Eminent authorities had declared that either side of the brain was competent for this purpose. But we use only one side, and, therefore, leave out of account one-half of brain-matter. We owe due education to both sides of the brain, or, rather, to the two brains.

As to intelligence, the eminent authorities he had cited established the fact that either side of the brain was competent for full development of the faculties. There were many persons of two minds, because they were never able to make up their minds. Some men claimed to be rational while they were insane. There were many cases that showed clearly that there were two brains. He had known a boy in London that manifestly had two brains, whose peculiarities he described. He would fall into a comatose state, and suddenly open his eyes brightly, inquiring of his mother why he was not introduced to the gentleman who was present while he was asleep. Again, the lecturer saw him when the boy recognised him. He had two mental lives. He knew nothing of what occurred in his sleeping condition, when fully awake; and when in the latter condition he knew what had occurred when in the former. The lecturer had seen three cases of this kind.

As regards faculty of speech, the fact that we had two brains was not so easily proved. The loss of the faculty of expression depends upon disease of the left side of the brain; and this proves that the right side is distinct.

As regards sight, a theory has been put forth by a celebrated physician of London, that the right side of the base of the brain is the centre of sight. The inner half of the right eye and the outer half of the left eye have the base of the brain as the centre. A disease in the left side of the brain, where the optic nerve touches, would, therefore, affect only one-half of the brain. Notable cases were given in which parties had seen but one-half of certain objects that they gazed upon. If the disease exist only in the left side of the base of the brain, only one-half of the eye will be affected. So there are many cases that go to sustain the philosophers. But we do not accept conclusions unless theory be thoroughly supported.

There were three series of facts, but one would be enough to show that the theory should be rejected. Disease of the brain, where the optic nerve touches, would not be sufficient to cause loss of sight. One side of the brain would be sufficient to sustain sight. An alteration in any portion of the nervous system, acting upon other parts, can produce disease in that part. Injury to the spinal cord would produce loss of sight on either side. There was nothing more common than the loss of sight temporarily in children who suffered from worms in the stomach. Any injury in one-half of the brain can exist without producing loss of sight. Either half of the brain may, therefore, serve to sustain sight.

As to the voluntary movements, these depended upon the action of the body. Yet there were many small muscles which were not affected in cases of paralysis. There were cases on record in which it was shown that the lower lobe of the brain could be destroyed without affecting these voluntary movements. There were several such cases. We must, therefore, look on one-half of the brain as being sufficient to sustain voluntary movements on both sides of the body. An irritation in any part of the brain may affect any part of the body, and an irritation in any part of the body can produce paralysis in another part. The irritation could also act upon remote parts. This shows that the power of will does not control the entire action of the body. When paralysis occurs, it depends upon irritation.

The same reasoning applies to sensation. There were thousands of cases affecting the brain that did not affect the feeling. Passing these facts in review, we find vast differences owing to the fact that one-half of the brain was developed for certain things, and the other half for other things. To the left side of the brain belonged the faculty of expressing ourselves by speech. Articulation depended in great measure upon the left side of the brain. Difficulties in the mechanical point of speech were more frequently found when the left side of the brain was diseased. It was the mental part that was lost, and not the mere mechanical action. The left side of the brain was also the motive power of gesture. When the left side was diseased, patients lost the power of gesticulation.

As regards writing, it was lost more frequently in diseases of the left side of the brain. The right arm was paralysed by diseases of this side. Many thus diseased could not write from memory, although they could use their fingers and copy. In those cases, it sometimes occurred that persons could not write at all.

Intelligence depends more upon the healthfulness of the left side than of the right side of the brain. The right side of the brain in some cases has the power of the left, if properly developed. This serves to hysterical developments and to nutrition of the body. One, the left, applies to mental; the other, to the natural life.

The right side of the brain operates upon the limbs in cases of paralysis and other diseases; also upon disturbances in the lungs, liver, and other parts. Hysterical and emotional symptoms are more common in cases of disease of the right side of the brain; out of 120 cases of paralysis that came under the lecturer's observation, there were 96 caused by disease of the right side. An alteration of the retina of the eye will come more frequently from diseases of this side of the brain. Out of 69 cases of convulsions of the eye, 47 were due to disease of the right side. Death occurs much more frequently by disease of the right side of the brain, and in cases where patients do not die it will produce more extensive and enduring paralysis.

All this shows, not that the two sides of the brain differed originally, but that there were different developments of each. The left side of the brain was much larger than the right side. If a person went frequently to the same hatter, he would find that his hat had from time to time to be enlarged. There was no question that the brain grew. By studying a particular subject, the person became more proficient, and the brain was more fully developed.

There was no doubt that the left side of the brain predominated in our system. Our being right-handed showed it. There was no population in the world that was not right-handed. The right hand of the body was mostly used. Left-handed individuals used the right side of the brain, showing the connection between these things.

There was primitively a difference between the two brains. In children, convulsions were sooner developed in the left than in the right side of the brain. This was attributable to excess of blood in the left side. Parrots roosted on the right legs, and their talking power came from the left side of the head.

There were four vital points to be considered. The first was that asphyxia was connected with the left side of the brain in persons that were right-handed, and with the right side in those that were left-handed. The second point was that children who were first learning to talk, if disease came in the left side of the brain, learned to talk just as well with the right side of the brain. Though losing half of the brain, they got along just as well.

This proved that the right side could be educated, with the left hand for execution. The third point was, that four out of every hundred left-handed persons learned to write with the left hand; therefore, the left side of the brain, even with persons left-handed, could be educated better than the right side. The fourth point was that the leg was rarely so much affected by paralysis as the arm. He, however, would pass over this argument, as it could only be understood by medical men.

If the lecturer had established that we had two brains, then they should be developed. If we could develope the legs and the arms of both sides, we could develope both sides of the brain. If we gave as much attention to the left side of the body as we do to the right side, we would fully develope our two brains. The important point, therefore, would be to make children use both sides of the body—alternately using the right and left arm and the right and left leg equally. There would be no difficulty in thus training children to full development.

Even adults who had lost speech by disease of the left side of the brain could regain the power by cultivating the right side. In gesture, persons who had lost the use of the right arm could be trained to use the left. If children were thus trained, we would have a sturdier and healthier race, both mentally and physically.

Dr. French is specially observing the effects of the famine on the fever-stricken people of West Burdwan.

Dr. Protheroe Smith has been elected a Corresponding Member of the Medical Society of St. Petersburg.

His Royal Highness the Duke of Edinburgh has been pleased to appoint Dr. J. Fayrer, C.S.I., Honorary Physician to Her Majesty, to be Physician to His Royal Highness.

Dr. T. Henry Green has been promoted to the office of full physician to Charing Cross Hospital; and Dr. Pearson Irvine has been unanimously recommended by the Council for the office of Assistant-Physician.

The Dean of the Westminster Hospital School requests us to correct a statement, which he says has appeared elsewhere, that the Council had accepted a proposition from certain ladies for the formation of a female department of the Medical School. The Council declined the proposition.

Messrs. Smith, Elder, and Co., the *Times* states, have entered into an arrangement with the Principal of the Inland Revenue Laboratory for the preparation of a hand-book on Adulterations, and the means of their detection in food, drink, and drugs.

The *Bombay Gazette* announces the death of Dr. Bhau Daji, whom it describes as "probably the most learned native in Bombay, and a most charitable and highly respected member of the community". He was honorary secretary of the Bombay Association, a member of the Local Board of Education, vice-president of the Bombay branch of the Royal Asiatic Society, president of the East India Association (Bombay branch), besides being a honorary member of several eminent foreign scientific societies. He was twice elected sheriff of Bombay. Dr. Bhau Daji was the first native student who gave attention to Indian botany and Hindoo medicine; but it is chiefly with the cure for leprosy that his name is identified.

THE IMPORTATION OF CHOLERA.

The port sanitary authorities, says the *Pall Mall Gazette*, warned by the experiences of last autumn, and, as we may suppose, strengthened by the legislation of 1872, will, it is to be hoped, act unitedly this year in endeavouring to prevent the importation of cholera. In 1873, isolated cases were introduced from Rotterdam, Hamburg, Caen, and Havre, into the ports of London, Liverpool, and Southampton. Each authority, guided in some way by an order in Council, did that which was right in its own eyes, and succeeded in stopping the disease. But it is notorious that no uniform plan of action has as yet been agreed upon by all port authorities. Some trust in the Customs for information, others make their medical officers inspect every suspected vessel, and a great many have done nothing at all. We may have cholera imported at any time from French, Dutch, Belgian, or North German ports; and Consul Bernal of Havre indicates, in his last official report, the hopelessness of getting early information from authorities in France as to the existence of any epidemic. The Dutch authorities are eminently open in such matters, and in Belgium and Germany the sanitary state of ports can be ascertained with comparative accuracy. Having regard, however, to the importance of concerted action, a meeting of port sanitary authorities in London, presided over by an "expert" from Mr. Simon's department at Whitehall, would at the present moment be eminently useful.

SOCIETY OF APOTHECARIES *v.* ANDERTON.

A penalty of £20, and costs amounting to £5 1s. 6d., have been lately recovered through the Halifax County Court from the defendant, Mr. Anderton, a homœopathic chemist in Halifax, for illegally practising as an apothecary.

ENGLISH PHYSICIANS IN CHILI.

Mr. Rumbold, the British Minister at Valparaiso, has addressed a note to the Chilian Government on the subject of the admission of the diplomas of our English medical examining bodies. At present, the recognition of these certificates is arbitrary, not to say capricious; and an examination conducted in the Spanish language, before a board of examiners who will find in the candidate a most formidable rival, is not a favourable test for a foreign practitioner. The Chilians pretend to an excellence and widespread knowledge in medicine not attained by other nations, and they deny that English doctors are equal to their standard. The result is that, while Englishmen who have graduated in the study of medicine at home are not allowed to practise in Chili, the country is overrun by a class of quacks who give themselves no trouble about a diploma or examining bodies of any nationality. This is the more to be regretted, as disease of a very serious type and fatal character appears to be rife in Chili. At Chillan, small-pox has been committing fearful ravages. Of 192 patients admitted into the hospital, no fewer than 154 died; whilst cholera of a very malignant type had broken out among the Indians of the frontier of Mendoza, causing two hundred deaths in twelve days. Many of the victims, it is said, succumbed ten minutes after being attacked.

POISONING BY CARBOLIC ACID.

Early on Sunday morning, Mr. Baker, surgeon, of Junction Road, Upper Holloway, being restless and unable to sleep, went to his surgery in the dark to obtain a composing draught, but he unfortunately took a dose of carbolic acid by mistake instead. Soon afterwards, Mrs. Baker was awoke by the violent retching of her husband. He said he was very ill and thought he should die. Dr. Spencer was immediately sent for, and was soon in attendance, but too late to save Mr. Baker's life. He endeavoured to revive the action of the heart by the application of the galvanic battery, but without effect. Mr. Baker had practised many years in Upper Holloway, and was much respected in the neighbourhood.

TRAINED NURSES' ANNUITY FUND.

A meeting was lately held at Grosvenor House, having for its object the establishment of a Trained Nurses' Annuity Fund. The object of the meeting having been stated in a few words by the Duke of Westminster, Mr. Erichsen moved, and Baron Henry de Worms seconded—

"That this meeting cordially approves the objects of the Trained Nurses' Annuity Fund, and pledges itself to support it to its best ability."

In urging the claims of the Annuity Fund upon his hearers, Mr. Erichsen dwelt upon the sickness, ill-health, and other hardships incident to the life of a nurse, and the urgent need of some provision being made for those who had worn themselves out in such a necessary and praiseworthy avocation. The mortality among London nurses, the speaker pointed out, was 40 per cent. above the mortality of the other female population of London, and surely no class of persons had a stronger claim on the community than those whose time and health and life were spent in alleviating human misery. In moving the next resolution, Mr. Brudenell Carter insisted upon the excellent nature of the charity now brought before the public. The resolution was as follows:

"That the following ladies and gentlemen, namely, the Countess of Carnwath, Lady Bloomfield, Lady Elizabeth Adeane, Miss Stanley, Mrs. Morries Stirling, Sir John Kennaway, M.P., Mr. John Eric Erichsen, W. Wadham, M.D., Mr. Victor Williamson, and Mr. J. C. Stirling, who have hitherto acted as the Committee of the Fund, be requested to continue to act in that capacity; and that they have power to add to their number."

Before the meeting broke up, a vote of thanks to the Duke of Westminster was put and carried; and His Grace added a few words, explaining that the Annuity Fund was in no way opposed to, and would very likely be amalgamated with, the Association for the Provision of Trained Nurses, which was being advocated that afternoon at Willis's Rooms. The Duke announced donations to the extent of £724, and annual subscriptions amounting to £70.

KING'S COLLEGE.

By the resignation of Dr. Garrod, a Physicianship to King's College Hospital, and the Professorship of Materia Medica in King's College, become vacant. For the former appointment, we understand that Dr. D. Ferrier is a candidate; for the latter, Dr. Milner Fothergill and Dr. Burney Yeo, both of whom are favourably known as cultivators of therapeutical science.

THE UNIVERSITY OF LONDON AND FEMALE GRADUATES.

The Senate of the University of London, at a meeting on Wednesday, adopted the following amendment by seventeen votes to ten, on a proposal to obtain a new charter enabling the University to confer degrees on women: "That the Senate is desirous to extend the scope of the educational advantages now offered to women, but it is not prepared to apply for a new charter to admit women to its degrees."

GOVERNORS' LETTERS.

We are glad to learn, by an announcement in the *Charity Organisation Reporter*, that a large number of both out-patient and in-patient letters for the metropolitan hospitals and medical institutions have been sent to the Council of the Society for distribution among deserving cases, after due investigation into the circumstances of the applicant. So long as the objectionable system of admission by governors' letters holds its ground, there cannot be a better way of dealing with the letters than this. The governor is at once relieved from all begging applications, and he has the assurance that his recommendations will be well bestowed—will be bestowed in such a manner as to assist the most needy without pauperising those who are in better circumstances. We may hope also that the action of the Charity Organisation Society in this matter will in time lead to the adoption of a better system of admission by the hospitals and dispensaries themselves.

RECENT MORTALITY AND METEOROLOGY.

Small-pox and scarlet fever are still prevalent in Birmingham, and the deaths from scarlet fever were last week excessive in Liverpool and Sheffield. Small-pox, in fact, has caused more than 300 deaths in Birmingham since the beginning of the year. The deaths registered in London last week were 167 below the average number in the corresponding week of the last ten years. One hundred and seventy-eight deaths in the metropolis were due to the seven principal zymotic diseases; that is, 109 below the corrected average number. The deaths from diarrhœa, which had been 22, 39, and 56 in the three previous weeks, further rose to 68 last week, and exceeded the corrected weekly average by 7; 55 were of infants under one year of age. The deaths of an adult in Battersea and of two infants in Fulham and Shoreditch were referred to choleraic diarrhœa. The mean temperature of the air at Greenwich was 57.4 deg. last week, and was 3.6 deg. below the average for the corresponding period in fifty years; a deficiency of temperature prevailed on each of the sixteen days ending with last Saturday. Nearly an inch of rain fell during the week, raising the amount measured at Greenwich since the beginning of the year to 6.5 inches, which is, however, still 4.7 inches below the average amount measured in the first six months of the year during fifty-eight years. Of foreign cities furnishing death-returns, the greatest mortality prevailed in Berlin, Munich, and Turin, in which the death-rates were 41, 46, and 35 per 1000 respectively.

CORONER'S COURT HOUSE.

The first building of this kind in London has been erected by the Vestry of Islington in the grounds of St. Mary's Chapel of Ease, Holloway Road; it has cost about £700, and was opened last week by Dr. Lankester. It provides accommodation for bodies, with dissecting-rooms, and a court-house for the holding of inquests. It is to be hoped that the poor will view the new dead-house with less disfavour than they have entertained for the parish mortuaries, and will send bodies to the new building rather than keep them in the single rooms in which they and their families live and sleep. The new building further obviates the necessity of holding inquests in public-houses—a practice in all respects to be condemned.

UNITED HOSPITALS ATHLETIC SPORTS.

The eighth anniversary of these sports took place at West Brompton last Saturday, and, thanks to fine weather and good management, was very successful. Some half-dozen gentlemen from King's College carried off the honours of the meeting, and earned for their school the title of "Champion Hospital" of the year. Between them they obtained the first place in six, and second place in five, out of the twelve events on the card; and one of them (Mr. C. B. Lewis) won first the one mile and then the two miles race in capital style. We hope these gentlemen will sustain the honour of their school as creditably in the more strictly professional contests, for which they will have to enter themselves before long.

SMALL-POX IN BIRMINGHAM.

In a recent number, in which we drew attention to the long continued prevalence of small-pox in Birmingham, we stated that one of the hindrances towards the provision of proper hospital accommodation was a fear, on the part of the public, that any such hospital might prove a centre of infection; and we ventured on the opinion that this fear was, to a great extent, due to a memorial which had emanated from members of the medical profession. We have since received a communication from Mr. Hall Wright justifying the course which he, with others, took in signing this memorial, which states amongst other things that "such a hospital should be removed as far as possible from human habitations, and that to perpetuate such a powerful centre of infection in the midst of a town is to do away with any advantages which might acrue from its existence as a hospital". Mr. Hall Wright further states that it would be wrong to send patients to a hospital where they would probably infect others in the neighbourhood; and he quotes a portion of Dr. Buchanan's speech, which is to the effect that it is impossible to state that there is absolutely no danger in the establishment of such a hospital as was then under consideration. Now, we freely admit that the construction of a small-pox hospital in any neighbourhood is not likely to meet with the approval of the surrounding inhabitants; but, on the question of infection, we have no hesitation in saying that no such danger should arise in a properly conducted institution; and the degree of hesitancy with which Dr. Buchanan spoke in his official capacity, was, probably, founded on the few instances in which small-pox is believed to have spread from some of the London hospitals, the immediate spread of the infection being due to such causes as that of ambulance attendants staying at public-houses on their return journey; instances of negligence which could certainly not be avoided in the future by merely placing the hospital outside the town, and which, even if they had occurred much oftener than they have done, are insignificant when compared with the incalculable harm which must result in a town like Birmingham, from the real centres of uncontrolled infection which may be found dotted about in its many densely populated districts. But our remarks were not so much founded on any objection which may be raised against the proposed hospital at Summer Hill, as on the general statement contained in the memorial, that such a hospital should be removed *as far as possible from human habitations*. If this view be a correct one, then the valuable institutions which have been established in London by the Metropolitan Asylums Board and by other bodies, and which were found to be of enormous benefit during the recent small-pox epidemic, are all the result of a great error, for they should have been built on sites removed as far as possible from the population they were intended to serve; an opinion which we feel sure can hardly be maintained if carefully considered. And if it applies to small-pox hospitals, it is even more true of institutions such as the London Fever Hospital, into which diseases such as typhus—against which there is no means of artificial protection — have been long received. And further, under the Sanitary Act of 1866, orders for the removal to a hospital of persons who, whilst suffering from dangerous infectious diseases, are improperly lodged and accommodated, can only be procured provided the hospital is within the district of the sanitary authority applying for the order of removal; and hence to take such a means of isolation away from the borough of Birmingham is to sacrifice one of the greatest uses to which it might be put.

STATISTICS OF THE BLIND.

THE recently published Annual Report of the Society for the Home Teaching of the Blind makes the following statement with regard to the number of blind persons in England and Wales, and in the metropolitan district, respectively.

"The Census Returns show that in England and Wales in 1861 there were 19,352 persons blind, while in 1871 there were 21,590, being an increase of 2,238, or at the rate of 11.6 per cent. in the ten years. Of the foregoing, the number under 20 years of age in 1861 was 2,702, in 1871 was 3,019; above 20 years of age in 1861 was 16,650, in 1871 was 18,571. In London, the statistics for 1871 are as follows. Total blind in the metropolitan district, 2,890: below 20 years of age, 423; above 20 years of age, 2,467. With respect to the provision made for the blind in London, to educate and train them for industrial and other occupations, it may be of interest to state that the schools at St. George's Fields, St. John's Wood, and Norwood, provide for about 275, chiefly for those below 20 years of age; while about 180 of various ages find employment in other industrial institutions."

WEST LONDON HOSPITAL.

THE annual dinner in aid of the funds of this charity was held on Tuesday last, at Willis's Rooms, the Duke of Devonshire, president of the institution, in the chair. The noble chairman, in proposing the toast of the evening, called the attention of his listeners to the great need of funds to support the hospital, the work of which was far in excess of the resources at its command. The recent collections on Hospital Sunday had in some degree helped to relieve the pressure on the resources available; yet still, in order to open permanently the wards which have recently been erected, a large sum is wanting. Especial thanks were due to the anonymous donor who, under the initials "W. L. H.", has within the last three years contributed £3000. During the evening, the chairman read a letter announcing that the late Mr. Banting had bequeathed to the charity the sum of £1800. This, with the sum collected on Tuesday, which amounts to nearly £800, will suffice to pay off the existing debts on the institution.

NURSES FOR THE SICK POOR.

ON Thursday, June 25th, an influential meeting, having for its object the formation of a national association for providing and training a body of nurses for the sick poor of London and the provinces, was held at Willis's Rooms; Sir Rutherford Alcock, K.C.B., in the chair. The first resolution, which was moved by Lord Shaftesbury, and seconded by the Bishop of Rochester, was as follows.

"That, with a view to securing better nursing for the sick poor as a sanitary and preventive measure, an association be formed, in accordance with the suggestions of a committee of the order of St. John of Jerusalem, for training and providing a body of nurses for that object in London and in the provinces, and that a home be established where nurses in training at the London hospitals, or employed as district nurses, may lodge, and where a register of trained nurses requiring employment may be kept."

The next resolution, moved by Earl Percy and seconded by Mr. F. D. Mocatta, was as follows.

"That the promoters of this association in no way wish to supersede existing institutions having similar objects in view, but that they will seek by every means at their disposal to promote a community of interests and action, and therefore invite their co-operation."

Other resolutions were carried to the effect that the association be called "The National Association for Providing Trained Nurses for the Sick Poor".

"That the cordial thanks of this meeting be given to Sir Rutherford Alcock for the valuable assistance he has rendered, and for his able conduct in the chair."

NEW PROFESSORSHIP OF BIOLOGY IN DURHAM UNIVERSITY COLLEGE.

THE authorities of the Durham University College of Medicine and Physical Science at Newcastle-on-Tyne have decided on establishing a chair of biology combined with physiology in connection with their institution. The duties of the professor to be elected will commence in October next, and will be remunerated by a salary of £450 *per annum*, supplemented by a portion of the fees.

DESCRIPTION OF APHASIA BY GOETHE.

MR. SIDNEY COUPLAND calls our attention to the following interesting description of aphasia which attracted his attention whilst reading Goethe's *Wilhelm Meister's Apprenticeship*.

"...But alas, this pleasing state was not of long continuance; altogether unexpectedly my father had a shock of palsy; it lamed his right side, and deprived him of the proper use of speech. We had to guess at everything that he required; for he never could pronounce the word that he intended. There were times when this was dreadfully afflicting to us: he would require expressly to be left alone with me; with earnest gestures he would signify that every one should go away; and when we saw ourselves alone, he could not speak the word he meant...."

In reference to the preceding extract, Mr. Coupland justly remarks that "Good descriptions of diseases by popular writers are not common; such accounts are generally full of inaccuracies and exaggerations, and are often quite unintelligible to a medical reader. The preceding quotation from Goethe's *Wilhelm Meister's Apprenticeship* is therefore interesting, not only as giving a clear description of a case of right hemiplegia with aphasia, but still more so from the fact that, whilst this work was published in 1795, the first description of aphasia by a *medical* author did not appear till 1836 (see Trousseau's *Clinical Medicine*, Sydenham Society's Translation; and Reynolds's *System of Medicine*, vol. ii, 2nd ed., p. 454); so that Goethe, who was educated for the bar, deserves the credit of being an original, as well as an accurate, observer of symptoms".

IRELAND.

REPRESENTATION OF THE DUBLIN UNIVERSITY.

WE would call the attention of the Dublin medical graduates of M.D. or A.M. standing to the fact that there will shortly be a contest for the seat for this University, now held by Her Majesty's Attorney-General for Ireland. Those medical graduates whose names are not on the register of parliamentary voters should lose no time in having their names registered, which can be done without fee on application to the Registrar of Parliamentary Voters, Trinity College, Dublin. We are specially anxious upon this occasion, as a medical candidate will be before the constituency in the person of Dr. Trail, Fellow of Trinity College, a Doctor of Medicine of the University. Although Dr. Trail has had no necessity to engage in the practice of his profession, yet, if returned to Parliament, he will be a most valuable addition to the roll of medical members, the more so on account of his high academic attainments, especially in that branch of science closely allied to medicine. Dr. Trail is a Conservative; but we understand there is not likely to be any Liberal opposition: therefore Liberal medical men will probably be free to exercise their votes in favour of Dr. Trail without violation of their political creed. The law-officers of the Crown have long had it their own way in Dublin University; and, without joining the Rev. Professor Haughton in his cry of "Woe unto ye, lawyers", we think it is time for the physicians to have a turn; and we hope (in the phraseology of a game in which Dr. Trail is a proficient) that he will make a good score, have a long innings, and never be stumped or run out. We are glad the present "Ball" has had a successful innings, as he has always been a good friend to our profession, and, we believe, has been not a little useful in improving the Irish Public Health Bill.

THE GALWAY ELECTION.

Mr. Ward, Licentiate of the King and Queen's College of Physicians and of the Royal College of Surgeons in Ireland, has been returned for the borough of Galway. Mr. Ward is a demonstrator in the Cecilia Street (Catholic University) School of Medicine. We have little to do with politics; but we may state that he represents the same party as the unseated member, Mr. O'Donnell.

THE LIFFEY NUISANCE.

The Dublin Corporation seems to have surpassed itself in obstructiveness, riot, and uproar, over the river Liffey. Two stormy meetings have been held. At the first, the obstructive party had its way, and nothing was done; at the second, a resolution was carried in favour of executing works for, at all events, the temporary abatement of the nuisance. The usual conflict of jurisdiction has arisen between the local authorities. It appears that the bottom of the river is under the care of one authority, the Dublin Port and Docks Board; but the sides of the river are under the charge of the Dublin Corporation. It seems, from the opinion of Mr. Fitzgibbon, Q.C., that the Dublin Municipal Council have no right to construct works in the bed of the river for the improvement of its sanitary condition, but have a right to prosecute the Port and Docks Board for allowing the same river-bed to become a nuisance; and, *per contra*, it seems that the Port and Docks Board can prosecute the Municipal Council for creating a nuisance by allowing the City drainage to flow into the river. We are not lawyers; but certainly this seems to be the only interpretation of the very elaborate opinion of Mr. Fitzgibbon. To get rid of the difficulty, it is proposed to memorialise the Lord Lieutenant to take measures to reconcile the differences between the conflicting authorities. This seems to be the sensible course, and one which we believe would have been adopted long since, but for the inveterate love of jobbing which seems to be a constitutional disease of the Dublin body corporate, which seems to have developed to a crisis on the present occasion—a crisis which, we hope, will end in a final reform of that facetiously called urban *sanitary* authority. If this be the result in Dublin, what may be expected from Sir Michael Beach's one hundred and thirteen urban authorities? We may also mention that Dublin obtained from Parliament in 1871 a special Act sanctioning an extensive and elaborate main-drainage scheme. This scheme, which, under the Act, the Municipal Council are bound to carry out, has been in existence for three years, and nothing has been done except construct two culverts for the carrying of the intercepting sewers past the end of a bridge, which had to be rebuilt in the meantime; and the Corporation, now finding that the scheme will not work, and that the culverts are useless, refuse to pay the Port and Docks Board for their construction, which proceeding is naturally resented by the latter body, who are about to sue the former for a sum of £8,000. Up to the present, the Dublin main-drainage scheme has remained under incubation by lawyers, engineers, and corporations, until a general *melée* has resulted, in which the lawyers alone have profited, and the citizens have suffered in pocket, temper, and health.

THE MEETING OF THE ASSOCIATION IN 1875.

At a meeting of the Committee of Council, held on Thursday last, it was recommended that the Council be advised to support a numerously and influentially signed invitation from the profession in Edinburgh for the Association to hold its annual meeting in 1875 in that city.

ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

The election of three members of Council of the Royal College of Surgeons took place on Thursday last, Messrs. Baker, Hilton, and Marshall being the successful candidates. We feel great satisfaction at the renewed recognition of the principle which we have on several occasions supported, in the election of Mr. Baker of Birmingham. The provincial surgeons will now be represented in the Council by three Fellows; viz.: Professor Humphry of Cambridge, Mr. Southam of Manchester, and Mr. Baker. The following were the numbers of votes given for the five candidates.

Marshall, Mr. John	152,	including	13	plumpers.
Hilton, Mr. John	116	,,	19	,,
Baker, Mr. Alfred	102	,,	10	,,
Smith, Mr. Henry	95	,,	20	,,
Hussey, Mr. E. L.	58	,,	3	,,

Among the provincial Fellows who attended were Messrs. Archer, Bindley, Chavasse, Crompton, Evans, Goodall, Savage, Solomon, Birmingham; Arnott, Ladybank (Fife); Baker, Coleshill; Barter and Bartrum, Bath; Benfield, Leicester; Bodington, Kingswinford; Bowring, Fletcher, Lund, and Southam, Manchester; Brookes, Shrewsbury; Bryan and Buszard, Northampton; Sir J. C. Burrows and Cattlin, Brighton; Chaffers, Keighley; Cooke and Manby, Wolverhampton; Copeman and Crosse, Norwich; Cousins, Portsmouth; Druitt, Wimborne; Green, Bristol; Griffith, Wrexham; Harris, Redruth; Hills, Cork; Humphry, Cambridge; Husband, York; Hussey, Oxford; Jessop, Leeds; Jones, Brackley; King, Hull; Lee, Salisbury; Lush, Weymouth; May, Reading; Pilcher, Boston; Richmond, Macclesfield; Roden, Kidderminster; Rose, High Wycombe; Shillitoe, Hitchin; Smith, Stevenage; Thomas, Sheffield.

In the evening, the Fellows dined together at the Albion Tavern. Mr. Erasmus Wilson, F.R.S., a member of the Council, occupied the Chair, being supported by the Directors-General of the Naval and Army Medical Departments, the President of the Royal College of Physicians, the Master of the Society of Apothecaries; Dr. West, Head Master of the Royal Medical Benevolent College, etc.

NEW MEMBERS: THE HALF-YEARLY SUBSCRIPTION.

Members elected on and after this date are admitted to the privileges of membership for the remaining half of the present year for a half-yearly subscription of 10s. 6d., due in advance on July 1st, the subsequent annual subscription of £1 1s. for following years dating from January 1st of each year in the usual manner. We have received from Mr. Vincent Jackson a list of nineteen new members (Staffordshire Branch), to whom Journals shall be duly forwarded. Secretaries of Branches and members having new members to propose are requested to give early intimation to the Manager, Mr. Francis Fowke, 37, Great Queen Street, Lincoln's Inn, W.C., in order that due provision may be made in respect to the supply of Journals.

PASS AND PLUCK AT THE COLLEGE OF SURGEONS: THE "PASS" EXAMINATION FOR THE MEMBERSHIP.

II.

The number of rejections for the final or pass examination, though very considerable, has not hitherto been proportionally so great as of those for the primary, the presumable causes for which we pointed out last week.

Here, as a general rule, the candidate has had a further two years and a half (or more if he pass his primary very young), before he presents himself. During this period, the larger percentage of men consider that the dissecting-room and its associations are things of the past, and apply themselves with different degrees of interest to their preparation for the license to practise their profession.

The candidate for this diploma has, in the interim, a large number of set lectures to attend, which vary in regularity and requirements in attendance in the several schools. Now, a course of lectures upon a given subject, as conducted by an expert or by a gifted teacher, is of the utmost value when it attracts for its own sake; but we are quite with those who hold that the age of *pro formâ* lecturing has past, and that this kind of lay sermon may be in many instances dispensed with, being very analogous to the enforcement of attendance on a college "chapel". A large amount of valuable time is consumed and wasted by good men, and can be of but little good to idle men, who depend on their attendance on their lectures merely as aids to their chance of "going up"; whereas the time might be more profitably employed in both instances—in the former in progress, and in the latter in exciting the student's interest by a direct method of appeal. We speak of the curriculum as it at present exists. We are glad, however, to see that in some of our schools attempts are being made to institute a thorough course of practical work, conducted in a rational way as an adjunct to the lectures, viz., a course of practical surgery consisting of *a.* Bandaging; *b.* Surgical Pathology, as illustrated by the museum and recent *post mortem* examinations; *c.* Operative Surgery on the dead body, supplemented by demonstrations on the living model, in which all the surface-markings are most carefully pointed out and examined. With regard to the clinical instruction, we are glad to notice that, especially amongst the younger surgical teachers, there is great attention paid to the students in the out-patient rooms; and we could only wish that many of them had the chance of ward-teaching, as we have often had occasion to notice that, after long waiting, and the demands of practice, the full officers are rather prone to neglect this portion of their duty as hospital surgeons, or will not take pains to keep up with the reading of the day. Of course the clinical teacher always ensures a class.

With regard, then, to the causes of failure at this examination. The chief and foremost cause of all the recent rejections is undoubtedly a want of knowledge of surgical anatomy. If we look at the late papers we shall see that two or three, or in one case four, of the six questions, were either entirely confined to the subject, or involved it; *i.e.*, such questions as, "What structures are necessarily cut through in performing such and such an operation"? or a "collateral circulation". Again, in the *vivâ voce*, the want of knowledge shown by the candidates in regard to the surface-markings, to hidden things, and indeed to things absolutely seen merely beneath the integument, is painful. It would seem that special courses should be adopted in all our schools, of what has been very properly termed "applied anatomy"—the anatomy of the *un*dissected subject, in fact, accompanied by demonstrations and examinations on the living body, and that body at rest and in action. We suggest this, as of the utmost advantage to the student, quite irrespectively of the fact of his having any examination to pass, but as of vital importance to himself in operation or diagnosis. Terrible mistakes are made over the pathological "pickles", which we agree with the student in regarding as far more difficult to recognise than the normal preparations shown him at the primary examinations; and it would be better if as many as possible were more recent. Students require to be well worked in their own or in the College museums, in order to become familiar with such specimens.

With regard to the nature of the practical examination on actual patients, it has always appeared to us of far too limited a nature, and to afford an "occasion for improvement" for such of the examiners as require, as we hinted, stock replies to stock inquiries; and it is, of course, obvious that all the cases must be capable of pedestrianism, and not likely to be very acute. At all events, the results of the examination for the pass in surgery show, as a rule, that the main causes of failure lie in the practical portion of it; and, setting aside one or two elements at which we hinted last week, we are inclined to think that the majority of plucks are deserved; that men do come up unprepared; and that similar pains are not employed as are on the primary. Our own experience shows that all *practical* teaching is of great interest to every student, and that he will attend to it when he can be hardly compelled to attend his lectures; and we are inclined to think that repeated failures in this branch point rather to its neglect, or imperfect teaching in the school from which he comes.

There is certainly not enough of the intelligent teaching of practical surgery in our schools; there are not enough clinical appointments, and men are not looked after sufficiently when they get these appointments; note-taking is not properly enforced, and in too many instances dresserships are nominal tenures of office, for which men obtain all they desire—a signature of attendance. The amount of really critical knowledge of the science of surgery is so small, that it is of the greatest importance that the nature of the queries should, as far as possible, tend to some amount of exercise of the intellect; and hence the examinations should be so conducted that the public may have practitioners who have at all events satisfied a fully qualified Court of their ability to act and to use the intellect, and the teaching should be made as thorough as possible.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:
FORTY-SECOND ANNUAL MEETING.

THE Annual Meeting of the British Medical Association will be held at Norwich, on Tuesday, Wednesday, Thursday, and Friday, August 11th, 12th, 13th, and 14th, 1874.

President—Sir WILLIAM FERGUSSON, Bart., F.R.S., Surgeon to King's College Hospital, London.

President-elect—EDWARD COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

An Address in Medicine will be given by J. RUSSELL REYNOLDS, M.D., F.R.S., Physician to University College Hospital.

An Address in Surgery will be given by W. CADGE, Esq., Surgeon to the Norfolk and Norwich Hospital.

An Address in Obstetric Medicine will be given by JAMES MATTHEWS DUNCAN, M.D., F.R.S.Edin., Lecturer on Midwifery and Diseases of Women and Children in the School of Medicine, Edinburgh.

The business of the Association will be transacted in four Sections, viz.:—

SECTION A. MEDICINE.—*President:* Dr. Eade, Norwich. *Vice-Presidents:* Dr. Sydney Ringer, London; Dr. Durrant, Ipswich. *Secretaries:* Dr. Bradbury, 59, Corpus Buildings, Cambridge; Dr. Lowe, King Street, King's Lynn.

SECTION B. SURGERY.—*President:* Sir James Paget, Bart., F.R.S., London. *Vice-Presidents:* T. W. Crosse, Esq., Norwich; Dr. Macnamara, Dublin. *Secretaries:* F. Worthington, Esq., Lowestoft; Reginald Harrison, Esq., 51, Rodney Street, Liverpool.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Churchill, Dublin. *Vice-Presidents:* Dr. W. S. Playfair, London; Dr. Steele, Liverpool. *Secretaries:* Dr. Edis, 23, Sackville Street, London; F. Image, Esq., Westgate Street, Bury St. Edmunds.

SECTION D. PUBLIC MEDICINE.—*President:* W. H. Michael, Esq., London; *Vice-Presidents:* Dr. Bateman, Norwich; Dr. Ransome, Bowden. *Secretaries:* Dr. Bond, Gloucester; Dr. Leech, Manchester.

The Honorary Local Secretaries are:
Dr. J. B. PITT, Norwich.
H. S. ROBINSON, Esq., Norwich.
Dr. BEVERLEY, Norwich.

Papers.—The following papers have been promised.

Ogle, J. W., M.D. 1. Cases of Tumour of the Cerebellum; 2. Cases of Adenomatous Tumours within the Thorax.

Fothergill, J. Milner, M.D. The Systemic Indications of Chronic Bright's Disease.

Gowers, W. R., M.D. Cases of Convulsions from Organic Brain-Disease.

Ferrier, D., M.D. The Localisation of Function in the Brain.

Eade, Peter, M.D. A Disease of Carpenters.

Mackenzie, Morell, M.D. On the Ætiology of Bronchocele.

Anningson, Bushell, M.B. On the Ætiology of Infectious Diseases.

Ross, James, M.D. On the Action of Mercury.

Thompson, J. Ashburton, Esq. General Remarks on the Internal Administration of Free Phosphorus.

Bradbury, J. B., M.D. Notes of Six Cases of Hydatids of the Liver treated by Puncture.

Hicks, J. Braxton, M.D., F.R.S. On the Adaptation of the Galvanic Cautery to Gynæcology.

Wright, Frederick W., M.D. On Decollation as a Mode of Delivery in Arm-Presentations.

Smart, W. R. E., M.D., C.B., Inspector-General of Hospitals and Fleets. On the Relative Frequency, the Causes, and Modes of Suicidal Attempts in the Navy and Army.

Fox, Cornelius B., M.D. Water-Analysis; as it should and as it should not be performed by the Medical Officer of Health.

Thornton, W. Pugin, Esq. On the Indications for Tracheotomy afforded by the Laryngoscope.

Thorowgood, J. C., M.D. On the Nature of the Asthmatic Paroxysm.

Baker, J. Wright, Esq. Case of Lithotomy: the Nucleus of the Stone being a Broken Piece of Elastic Catheter.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above-named officers *on or before the 1st of August.*

No paper must exceed *twenty* minutes in reading; and no subsequent speech must exceed *ten* minutes.

All speeches at the General Meeting must not exceed *ten* minutes each.

FRANCIS FOWKE, *General Secretary.*

General Secretary's Office, 37, Great Queen Street, W.C.,
June 25th, 1874.

NORTH WALES BRANCH.

THE annual meeting of this Branch will be held at the Royal Oak Hotel, Bettws-y-coed, on Tuesday, July 7th, at 1 P.M.; T. EVANS JONES, Esq., President.

Luncheon will be kindly provided by the President at the Hotel, from 12 to 1 P.M.

The dinner will be ready at 4 P.M. precisely. Tickets, 10s. 6d. each, including a pint of wine.

Gentlemen who may wish to communicate papers or cases, and who intend dining, will please to give early intimation to the Secretary.

D. KENT JONES, *Honorary Secretary.*

Beaumaris, June 3rd, 1874.

SOUTHERN BRANCH: HAMPSHIRE, DORSET, SOUTH WILTSHIRE, AND THE ISLE OF WIGHT.

THE first annual meeting of the above Branch will be held on Thursday, July 9th, 1874, at the Pier Hotel, Southsea, at 3.30 P.M., when the President, Inspector-General SMART, M.D., C.B., will deliver an address.

The business of the meeting will be to receive the report of the Provisional Council, to elect the officers of the Branch, and the representatives to the General Council for the ensuing year.

The dinner will take place punctually at a quarter past six. Tickets, 10s. each. (Wines at moderate charges.)

The Dinner Committee particularly request that those members who intend to be present at the dinner will send in their names before Saturday, July 4th, in order that the necessary arrangements may be completed.

J. WARD COUSINS, *Hon. Sec.*

Southsea, June 11th, 1874.

BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 9th, at 4.20 P.M.; when Dr. FOX will resign the Chair to F. MASON, Esq.

The members will afterwards dine together at the York House. Dinner tickets, 7s. 6d., exclusive of wine.

R. S. FOWLER, Bath. } *Honorary Secretaries.*
E. C. BOARD, Clifton. }

Bath, June 17th, 1874.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

THE annual general meeting of the above Branch will be held at Aberdeen, on Saturday, July 18th, at 2 o'clock.

Intimation of particulars will be made to the members by circular.

ALEXANDER OGSTON, *Honorary Secretary.*

METROPOLITAN COUNTIES BRANCH.

THE twenty-second annual meeting of this Branch will be held at the Banqueting Hall, Alexandra Park, on Monday, July 20th, at 4 P.M.: President for 1873-74, RICHARD QUAIN, M.D., F.R.S.; President-elect for 1874-75, T. B. CURLING, Esq., F.R.S.

At 5.30 P.M. precisely, the members will dine together; T. B. CURLING, Esq., F.R.S., in the Chair. Tickets, fifteen shillings each (including ices, tea, coffee, and attendance, but exclusive of wine).

A. P. STEWART, M.D., } *Hon. Secretaries.*
ALEXANDER HENRY, M.D., }

London, June 24th, 1874.

WEST SOMERSET BRANCH.

THE annual meeting of this Branch will be held at the White Hart Hotel, Milverton, on Thursday, July 23rd, at 2.30 P.M., under the presidency of H. W. RANDOLPH, Esq.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, July 1st, 1874.

CUMBERLAND AND WESTMORLAND BRANCH.

THE annual meeting of the above Branch will be held at Carlisle, on Wednesday, July 29th, 1874.

Gentlemen intending to bring forward communications, are requested to give immediate notice.

HENRY BARNES, M.D., *Honorary Secretary.*

Carlisle, June 30th, 1874.

EAST YORK AND NORTH LINCOLN BRANCH: ANNUAL MEETING.

THE eighteenth annual meeting was held at the Hull Infirmary on May 27th, G. F. ELLIOTT, M.D., the President, in the Chair. Nineteen members and two visitors were present.

The Report of the Committee upon the Fortnightly Meetings was taken as read.

New Members.—The following were admitted to the Branch: Ralph Burnham, Esq., Kealby; R. W. Cooper, Esq., Hull; S. N. Harrison, Esq., Hull; F. Macnab, Esq., Hull; T. J. Quicke, Esq., Hull; C. Solomon, Esq., Skirlaugh; T. Sharpley, M.D., Louth.

Officers.—The following were appointed. *President-elect:* J. Dix, Esq. *Honorary Secretary and Treasurer:* Robert H. B. Nicholson, Esq. *Committee:* Sir H. Cooper, M.D.; R. M. Craven, Esq.; H. Gibson, Esq.; J. F. Holden, Esq.; K. King, M.D.; J. W. Lunn, M.D.; J. Morley, Esq.

Half-Yearly Meeting.—The appointment of the place of meeting was left to the Committee.

Representatives in the General Council.—The following were elected: G. F. Elliott, M.D.; J. Dix, Esq.; W. J. Lunn, M.D.

Representative in the Parliamentary Bills Committee.—Sir H. Cooper, M.D., was chosen.

Papers.—The following papers and cases were read:

1. The Introductory Address. By Dr. G. F. Elliott.
2. Sanitary Legislation: its present and remote influences on the Medical Profession. By William Holder, Esq.
3. Surgical Cases. By R. M. Craven, Esq.
4. Case of Colotomy. By Dr. K. King.

A *Dinner* was held at the Vittoria Hotel, to which twenty-two members and visitors adjourned.

LANCASHIRE AND CHESHIRE BRANCH: ANNUAL MEETING.

THE thirty-eighth annual meeting of this Branch was held in the Council Chamber, Town Hall, Blackburn, on Wednesday, June 17th; JOHN SKAIFE, Esq., President, in the Chair. Forty-five members and eight visitors were present.

President's Address.—The PRESIDENT delivered an address, in which he gave some interesting reminiscences of his practice in Blackburn. (See page 10.)

Report of Council.—Dr. STEELE, the Honorary Secretary, read the Annual Report of the Council. The Council congratulated the members on holding the meeting in Blackburn, now for the first time constituted the place of the annual gathering; in anticipation of which, a large number of members, chiefly from this district of the county, had joined the Association and Branch. The Council, as usual, had the satisfaction of reporting the continued success and prosperity of the Branch. The number of members in June 1873 was 402; joined since, 95; losses by death, resignation, removal, etc., 33—viz., 4 deaths, 29 resignations; remaining as the present numerical strength of the Branch, 464. There still remained in the two counties constituting the Branch ample scope for numerical increase; and the Council would remind the members that individual influence and exertion should now supplement the organised care for new members which originated in 1871. With unfeigned regret the Council recorded the death of Thomas Turner, Esq., of Manchester, full of years and honours. His urbanity, geniality, and unbounded hospitality, his long and loyal connection with this Branch, would embalm his memory in the respect and affection of its members. A special general meeting of the Branch was held in Liverpool on March 23rd, to consider the Report of the Subcommittee of the Parliamentary Bills Committee on the Education and Registration of Midwives. The following resolution was carried: "That this meeting would gladly welcome any plan for the voluntary improvement of professional education amongst midwives; but it is not in favour of any application to Parliament for legislation in the direction of compulsory education, implying, as a consequence, penalties on the one hand and legal advantages upon the other, which the experience of the last few years in medical legislation has shown to be futile." The Council directed attention to the recently announced decision of the Court of Chancery as to the disposal of the surplus of the "Cotton Famine Fund", which surplus, the Council were informed, the trustees contemplated to devote to the erection of convalescent or other hospitals for the operatives of this district. The Council felt strongly that this was a subject respecting which the medical profession ought to be consulted, and they conceived that no better means of accomplishing that object would be attained than by referring it to this Branch. Since the last annual meeting, the Council had had under consideration the desirability of a change in the mode of electing the Council of the Branch.

Dr. CHEESBROUGH (Blackburn) moved that the report of the Council and the Treasurer's statement be received and adopted.—Dr. OXLEY (Liverpool) seconded the proposition, which was unanimously agreed to.

Vote of Thanks to the Officers and Council.—Mr. H. A. GRIME (Blackburn) proposed that the best thanks of the meeting be accorded to the President, Vice-President, and the Council of the Association, for their valuable services during the past year.—Dr. GARSTANG (Blackburn) seconded the resolution, and it was adopted.

Next Annual Meeting.—Dr. A. T. H. WATERS (Liverpool) moved that the next annual meeting be held at Chester; and that Dr. Davies-Colley, of Chester, be President-elect; and Dr. Russell, of Newton, and Dr. Brown, of Preston, Vice-Presidents.—Dr. DESMOND (Liverpool) seconded the proposition.—Dr. WATERS (Chester), as one of a deputation from Chester, expressed, on behalf of the professional gentlemen of Chester, their desire to give the Association a noble welcome to the ancient and loyal city.—The motion was unanimously agreed to.

Representatives in the General Council.—Dr. LIGHTBOURNE (Blackburn) moved that the following gentlemen be the representatives of the Branch in the General Council of the Association: R. Beales, M.D., Congleton; T. Davies-Colley, M.D., Chester; L. E. Desmond, M.D., Liverpool; W. Hall, Esq., Lancaster; J. Hardie, M.D., Sale; J. Harrison, Esq., Chester; R. Harrison, Esq., Liverpool; C. Johnson, Esq., Lancaster; E. Lund, Esq., Manchester; C. E. Lyster, M.D., Liverpool; W. McEwen, M.D., Chester; W. Martland, Esq., Blackburn; T. Mellor, Esq., Manchester; J. E. Moreton, M.D., Tarvin; E. S. Morley, M.D., Blackburn; G. W. Mould, Esq., Cheadle; D. W. Parsons, Esq., Liverpool; A. Ransome, M.D., Manchester; T. L. Rogers, M.D., Rainhill; H. Simpson, M.D., Manchester; G. Southam, Esq., Manchester; A. T. H. Waters, M.D., Liverpool; C. White, Esq., Warrington; M. A. E. Wilkinson, M.D., Manchester; with Dr. Steele, Honorary Secretary, *ex officio*.

Council of the Branch.—The following gentlemen were elected ordinary members of the Branch Council: S. M. Bradley, Esq., Manchester; W. Cooper, Esq., Widnes; Samuel Crompton, M.D., Manchester; E. D. de Vitre, M.D., Lancaster; W. H. Fitzpatrick, M.D., Knotty Ash; N. S. Glazebrook, Esq., West Derby; J. H. Gornall, Esq., Warrington; John Haddon, M.D., Eccles; M. J. J. Jennett, Esq., Birkenhead; D. J. Leech, M.D., Manchester; W. McCheane, Esq., Liverpool; J. McNaught, M.D., Liverpool; J. E. Morgan, M.D., Manchester; J. Thorburn, M.D., Manchester; J. Vose, M.D., Liverpool; E. Waters, M.D., Chester; W. Garstang, M.D., Blackburn; F. P. Weaver, M.D., Frodsham; and T. C. Smith, Esq., Warrington.

Election of Council.—Dr. STEELE moved, "That Law 3 be so altered that in future the whole Council, except the officers, be elected annually by a ballot-paper, to be sent to each member with the annual circular, as per form annexed."—Dr. OXLEY (Liverpool) seconded the motion, and it was unanimously adopted.

The Proposed Convalescent Hospital.—Dr. STEELE said that the Court of Chancery had directed that a certain amount of the surplus of the Cotton Famine Relief Fund should be devoted to the erection of a Convalescent Hospital for the county of Lancaster. There was an opinion that the medical men of the county should have an opportunity of communicating their views upon the matter. If the meeting were desirous that the Branch should take the matter into consideration, it would devolve on him to call a meeting of the Branch or of the Council. He had no resolution to propose. He had now discharged his duty. The question was, whether the members thought it desirable for the Branch to interfere.—No discussion of the subject took place.

Papers.—The following papers were read.

1. Remarks on Pleuritic Effusions and their Treatment. By A. T. H. Waters, M.D.

2. On the Treatment of Bites of Dogs by Lunar Caustic, as being unsound in Theory, injurious and unsuccessful in Practice. By J. Haddon, M.D.

3. Retropharyngeal Abscess in the Child. By M. G. B. Oxley, L.K.Q.C.P.

4. Specimens of Rarer Forms of Contracted Pelvis. By D. Lloyd Roberts, M.D.

5. On some of the Uses of Chloral Hydrate in Labour. By J. Wallace, M.D.

6. On the Action of Stimulants. By J. Ross, M.D.

7. Specimens of the Pathological Anatomy of the Liver. By A. Davidson, M.D.

8. On Mazoitis (*apud Lactantes*): its Course, Result, and Management. By W. Garstang, M.D.

9. Morbid Growths removed from the Uterus. By A. B. Steele, L.K.Q.C.P.I.

10. Specimens of Brain and Lung in Tubercular Meningitis in a Child. By M. G. B. Oxley, L.K.Q.C.P.

Votes of Thanks.—Mr. MELLOR moved, "That the best thanks of this meeting be given to the readers of papers and exhibitors of specimens."—Mr. MCCHEANE seconded the resolution, which was carried with acclamation.

Mr. COULTATE moved a vote of thanks to the Mayor and Corporation for kindly allowing them the use of the room.—Dr. NOBLE seconded it, and it was carried unanimously.

Dinner.—The members afterwards dined together in the Assembly Room of the Town Hall; John Skaife, Esq., President, in the Chair.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

A MEETING of the above district was held at the Royal Sea House Hotel, Worthing, on Tuesday, June 8th; W. J. HARRIS, Esq., in the Chair—nine members being present.

Autumn Meeting.—It was unanimously resolved that the autumn meeting be held at Chichester, and that Dr. Tyacke be requested to act as Chairman.

Secretary.—Mr. W. J. Harris was re-elected Honorary Secretary for the ensuing year.

Deaths of Members.—The CHAIRMAN, in the course of a short address, alluded especially to the losses which the Association and the South-Eastern Branch had sustained in the deaths of Dr. John Murray of London, Dr. Collet of Worthing, and Mr. Morris of Petworth. The following resolution, proposed by W. HARRIS, Esq. (Clapham), seconded by Dr. MOON (Brighton), and carried unanimously, was ordered to be entered upon the minutes, and a copy of the same to be forwarded to Mrs. Collet by the Honorary Secretary.

"That the members of the West Sussex District of the South-Eastern Branch of the British Medical Association do much deplore the loss of their esteemed and valued associate Dr. Collet, and they beg to express their very sincere sympathy towards his widow and family for the sad bereavement which they have sustained."

Communications.—The following communications were brought before the notice of the members present.

1. A. H. Collet, Esq.: On a Case of Obstruction from Gall-Stones.

2. W. J. Harris, Esq.: The Advantages of the Use of *Bougies à boule* in the Treatment of Stricture of the Urethra.

3. Dr. Moon: A Case of Acute Rheumatism in a person aged 45, where death ensued from syncope upon the sixth day.

All these communications gave rise to some discussion amongst the members, and some valuable information was gained therefrom.

Dinner.—Ten members and one visitor afterwards dined together, under the presidency of Mr. W. J. Harris.

MIDLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Guildhall, Lincoln, on Thursday, June 25th, under the presidency of T. SYMPSON, Esq., F.R.C.S. About thirty members attended the meeting.

President's Address.—After a vote of thanks had been passed to the retiring President, Mr. Lankester (Leicester), the PRESIDENT delivered an able address, commenting upon the unsatisfactory state of the Branch, and upon professional remuneration—a subject now under the consideration of the members of the profession in the county.

The following gentlemen were elected members of the Association and Branch: Mr. Thomas Highton (Derby); Mr. J. Warren (Tutbury); Mr. Richard M. Allen (Welbourne); Mr. T. A. Crackle (Breaston); Mr. George B. White (Nottingham); Dr. W. F. Lill, Dr. Mitchinson, and Mr. A. Marten French (Lincoln); and Mr. Tone-Johnson (Heighington). Dr. Domenichetti, Deputy Inspector-General of Hospitals (Louth), and Dr. J. Hadden (Horncastle), were elected members of the Branch.

Representatives in the General Council.—The following gentlemen were elected members of the Council: Mr. White and Dr. Ransom (Nottingham); Mr. Baker and Mr. Dolman (Derby); Mr. Benfield and Mr. Lankester (Leicester); Dr. Morris and Mr. Sympson (Lincoln).

President-elect.—Mr. A. H. Dolman was appointed President-elect; the next meeting to be held at Derby.

Communications.—1. Mr. Dolman read a paper on the use of Convalescent Rooms in Infirmaries.

2. Mr. Broadbent made some remarks on the use of Alcohol in the Treatment of Disease, which were followed by an interesting discussion on the use of alcohol generally, in which many of the members took part.

3. Mr. Thompson read a paper on Deligation of the Umbilical Cord at Parturition, in which he expressed his opinion that there was no necessity to tie the cord. He seldom applied any ligature, and never had any hæmorrhage.—Mr. Barton and others did not agree with Mr. Thompson, and considered it unsafe not to apply the usual ligature.

4. The President read notes of a case of Uterine Fibroid, and exhibited a patient whose Knee-joint he had excised some years before. The youth was in good health, was able to play cricket, and run for himself.

5. The President also exhibited a patient whose Os Calcis he excised some years ago.

Dinner.—The members afterwards dined at the Great Northern Hotel; the Mayors of Lincoln and Derby, and several other gentlemen, being present as guests.

MILITARY AND NAVAL MEDICAL SERVICES.

THE SUCCESSOR TO SURGEON-GENERAL BEATSON.

We understand that the vacancy created by the death of Surgeon-General Beatson will shortly be filled up by the promotion of Deputy Surgeon-General Bent, who now occupies the senior place in his rank. This, in addition to other recent evidence, seems to show that the authorities are now disposed, in all ordinary cases, to adopt the principle of seniority in preference to so-called selection. The picking out of special men from among these elders to occupy posts of honour and emolument is always an invidious process, and must be conducted with peculiar care, to avoid the imputation of favouritism. The act of supercession is a very painful one, and very deep and lasting heart-burnings have been caused in the Department by the way in which hard-working men have frequently been passed over when their turn for promotion came. It would seem, therefore, to be decidedly a popular step to return to the old plan and to give every competent medical officer an equal prospect of attaining some day to the higher branches of his professsion. Mr. Bent's promotion will absorb Deputy Surgeon-General Mackenzie, and it is rumoured that Deputy Surgeon-General Woolfreys may undergo the same process before long, by the retirement of Surgeon-General O'Flaherty. It is now settled that Surgeon Currie, C.B., succeeds Dr. Beatson in charge of the Bombay Division and Principal Medical Officer of India, and Surgeon-General Gordon, C.B., proceeds from Aldershot to take up the reins of power at Madras. These Indian appointments are among the best paid, and consequently the most coveted, appointments in the Department, and the senior of the three does not exceed the others so much now as formerly in the way of emolument, on account of the manner in which the supreme medical command has recently been vested in the officer in charge of a division, instead of being, as in the case of the Director-General at home, a separate and distinct office.

NAVAL MEDICAL SERVICE.

Sir,—A deputation from the Parliamentary Committee of the British Medical Association lately waited on the First Lord of the Admiralty to propose measures in the hope of putting an end to the existing unpopularity of this service, and were civilly received by him.

That an exodus of young officers is progressive and still unchecked, is shown by a decrease of ten in the navy list, published to-day; and as there are officially notified only one death, and two retirements from age, the remainder are to be accounted for from other causes. I think they must have been by resignation of commissions.

There are only three names given as "resigned"; but at a glance I know of at least three others who have resigned, and whose names have disappeared from the navy list without comment of any kind on the reason; these are,

1. Richard Beamish, B.A., M.D., 1866.
2. C. F. K. Murray, M.D., 1869, late *Rattlesnake.**
3. James McCarthy, M.D., 1871, late *Victor Emmanuel.*

From this I infer that these inconvenient facts are intentionally concealed; and, after the prominence taken by the question before Parliament and the public press, it appears to me to be a clear case of *suppressio veri*, if not one of *suggestio falsi*, with intent to deceive through the channel of a semi-official navy list.

Nothing can be gained by such disingenuous practices, however natural to the performers; for, if the Admiralty are thereby quieted in their apprehensions, no one outside the sea-horses, who takes the trouble to sift statements for facts, will feel it to be a sadly weak and unworthy cause or condition that resorts to such means to deceive the public.

I am, etc.,

Medical Club, 1st July, 1874. A Naval Doctor.

NAVAL MEDICAL APPOINTMENTS.

Surgeon N. F. H. Fitzmaurice, from half-pay, to H.M.S. *Victor Emmanuel*, for appointment to *Thistle*, on China station.

Surgeon Robert Atkinson, from H.M.S *Dromedary* (paying off) to H.M.S. *Implacable*, additional for *Sealark*.

Surgeon Edward Thomas Lloyd, from H.M.S. *Vanguard* to H.M.S. *Fly*, commissioned.

Surgeon Septimus Sexton, from H.M.S. *Jackal* to H.M.S. *Beacon*, *vice* Leech.

Staff-Surgeon Geo. Mason, M.D., from H.M.S. *Achilles* to H.M.S. *Durham*, *vice* MacClinton (period of service expired).

Staff-Surgeon Jacob E. Dyas, from half-pay, to H.M.S *Achilles*, *vice* Mason.

Staff-Surgeon (second class) James W. Fisher, M.D., from half-pay, to H.M.S. *Vanguard*, in lieu of surgeon for temporary service, *vice* Lloyd, to *Fly*.

OBITUARY.

WILLIAM CARSON, M.D.,

DEPUTY INSPECTOR-GENERAL, ROYAL ARMY.

At Grove Lodge, Merchiston, Edinburgh, on May 16th, died Dr. W. Carson, Deputy Inspector-General of Hospitals, aged 60. Dr. Carson was appointed in 1836 assistant-surgeon to the 85th Regimen of Foot, then stationed at Plymouth. He continued with it, at home and abroad, until made full surgeon, when he was ordered to the Mauritius, where he served for about nine years on the staff of Sir William Gomm, the Governor and Commander-in-chief. He became staff-surgeon of the first class in 1855, and did duty for two or three years chiefly in and around London, and finally retired on half-pay in 1862. He afterwards accepted the appointment of resident medical officer to the new military prison then being formed in Southwark. When on the point of entering on this duty, he was seized with paralysis, which led to his immediate resignation, and from which he never recovered.

JAMES COTTON BYLES, L.R.C.P.Ed.

We regret to announce the death of Dr. James Cotton Byles, which took place at his residence, Victoria Park Road, Hackney, on May 21st, when he had but a month previously completed his 36th year. He was educated at Bancroft's and the City of London Schools, and entered as a pupil at the London Hospital in October 1856. As a student, he was remarkable as a quiet steady worker, doing well and thoroughly all he undertook. He became a member of the College of Surgeons in 1859, after which he went to Melbourne as a surgeon to an emigrant ship, and subsequently took two voyages to Madras in a similar capacity. He returned to England in 1864, and soon afterwards became a Licentiate of the Apothecaries' Company. In April 1865, he married Edith Adeline, the youngest daughter of Charles Dinham, Esq., who, with three sons, the issue of the marriage, survive him. In 1866, Dr. Byles became a Licentiate of the Edinburgh College of Physicians, and also a Licentiate in Midwifery of the College of Surgeons of England. He was Surgeon to the French Hospital, and for several years a Member of the British Medical Association.

In 1864, upon his return from Madras, Dr. Byles settled at Hackney, succeeding Dr. Giles in practice there; and soon, by his devotion to his work, his kindness and gentleness of manner, increased his professional connection, so that during the last few years of his life his health was seriously damaged by the large demands made upon the hours he should have set apart for rest. In the autumn of 1871 his health gave way, and some indications of kidney-disease gave anxiety to his friends; and, acting under the advice of his old teacher Dr. Andrew Clark, and Dr. Palfrey (having received Mr. F. G. M. Brittin into partnership), he took a voyage to the Cape of Good Hope. He returned in July, 1872, in restored health, and entered with all his accustomed energy again into practice. He continued to work until September of last year, when, during a short trip to Devonshire, he was attacked with some alarming symptoms, referable chiefly to his heart and kidney. Upon his return to town, his illness increased, and confirmed manifestations of Bright's disease appeared. Sir William Gull joined his advisers; and at this time an attack of acute pericarditis placed his life in great peril. He, however, rallied; his malady ran its usual course, and he died at the date mentioned, the event being immediately due to embolism.

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* It is a fact pregnant in its meaning, that this young officer, having gained the highest honour in examination of his year, had secured to himself promotion after five years' service, which had nearly expired, when, after general as well as war service, he prefers to resign his commission, rather than to take his promised promotion.

During his protracted illness, his former teachers—Drs. Herbert Davies, Andrew Clark, Ramskill, and many others—frequently visited him, Dr. Palfrey being in almost daily attendance.

The writer of this memoir (for ten years) had frequent opportunities of meeting the deceased in consultation, and can testify to the fact that the ranks of the profession has been deprived of one who in every capacity lived steadily up to the great principle of "being to all men kind and true".

ALEXANDER CRAIG GIBSON, M.R.C.S.Eng., F.S.A., etc.

MR. GIBSON was born in Cumberland, and studied in Edinburgh and London. He began practice in his native county, and, in 1856, removed to Bebington, near Birkenhead, where he soon acquired a large and important practice.

Mr. Gibson was a robust man, both in mind and body, possessing a wonderful memory and much force of character. While he was humane, manly, able, and scrupulously upright, he was full of kindness, considerate sympathy, and every finer feeling of our nature. His literary ability was of a high order; but he indulged his literary tastes merely to amuse himself in his spare hours. He was the author of *Rovings and Ramblings round Coniston Old Man*; of *Folk-speech in Cumberland and Adjacent Districts*—a volume so abounding in rich humour, and minute knowledge of the dialect and habits of the Cumberland peasantry. He also wrote many songs and ballads well known and often sung in the Lake Country among Cumberland men.

Mr. Gibson was an active member of several learned societies, and wrote many topographical, antiquarian, ethnological, and medical papers. Four years ago, while in the full enjoyment of health and strength, Mr. Gibson unfortunately caught syphilis on the forefinger while attending a midwifery case. Secondary symptoms followed; and, though these were checked from time to time, and his general health, which had now suffered greatly, was much improved by a trip to the Mediterranean in 1871, still the enemy clung to him; and, soon after his return, it seized his brain and brought on paralysis. From this attack he never completely recovered, and, in January 1872, he resigned practice. After moving about for change from place to place for some months among his old friends, he returned to Bebington about two months ago. On the morning of the 1st instant, a new attack of paralysis completely prostrated him, and he sank on the 12th, in the sixty-second year of his age.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 25th, 1874.

Caddy, Henry, Ulverston, Lancashire
Hicks, Edward John William, George Street, Hanover Square
Ottley, Walter, General Hospital, Nottingham
Woodforde, Alfred Pownall, 83, Marylebone Road

The following gentlemen also on the same day passed their primary professional examination.

Breach, John Frederick, Guy's Hospital
Glyn, Herbert Arthur, St. Bartholomew's Hospital
Sewell, William, St. George's Hospital

UNIVERSITY OF DURHAM.—At a Convocation, held on June 23rd, the following Degrees and Licences in Medicine were conferred after examination at the Newcastle College of Medicine, on June 15th, 16th, 17th, and 18th.

Degree of M.D.—George Rowell.
Degree of M.B.—W. T. Wilson and Ralph Young.
Licence in Medicine.—Andrew Arnold and Charles W. Wilson.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABERDEEN—Public Analyst. Applications, 15th instant, to James Valentine, Clerk of Police.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications, 10th August, to Sir W. M. Muir, Director-General.

BURNLEY RURAL SANITARY DISTRICT, combined with several others—Medical Officer of Health: £500 per annum. Applications, 27th instant, to A. Hanley Dean, Clerk to the Burnley Rural Sanitary Authority.

BURNLEY UNION, Lancashire—Medical Officer and Public Vaccinator for the Habergham Eaves District: £50 per annum, and fees.

CARDIFF UNION—Medical Officer and Public Vaccinator for the West District: £125:10 per annum, and fees. Applications, 10th instant, to W. P. Stephenson, Clerk.

CARLISLE DISPENSARY—Assistant House-Surgeon: £90 per annum, apartments, coals, gas, and attendance.

CERES, Fifeshire—Parochial Medical Officer and Public Vaccinator: £23 per annum, and fees; and £42 per annum as Medical Officer of the Adamson Institution. Applications, 31st instant, to Mr. Younger, Inspector of Poor.

CROOM UNION, co. Limerick—Apothecary to the Workhouse: £20 per annum; and to the Croom Dispensary District: £30 per annum. Applications, 23rd instant, to J. D. Fitzgerald, Clerk.

DURHAM UNIVERSITY COLLEGES OF MEDICINE and PHYSICAL SCIENCES, Newcastle-upon-Tyne—Professor of Biology combined with Physiology: £450 per annum, and a portion of fees. Applications, 15th August, to T. Wood Bunning, Secretary to College of Physical Science.

EVANGELICAL PROTESTANT DEACONESSES INSTITUTION AND TRAINING HOSPITAL, Tottenham—Resident House-Surgeon.

GENERAL INFIRMARY, Northampton—House-Surgeon and Assistant House-Surgeon: £125 and £30 per annum, furnished apartments, board, etc., respectively. Applications, 18th instant, to S. P. Bennett, Secretary.

HARTLEPOOLS HOSPITAL and DISPENSARY—House-Surgeon: £80 per annum, increasing to £100, board and lodging. Applications, 13th instant, to the Secretary.

HENDON UNION, Middlesex—Medical Officer for the Harrow Weald District: £30 per annum.

HUDDERSFIELD and UPPER AGBRIGG INFIRMARY—Surgeon. Applications, 17th instant, to John Marsden, Honorary Secretary.

HUNTINGDON COUNTY HOSPITAL—House-Surgeon: £60 per annum, board, and rooms. Applications, 15th instant, to M. Foster, Esq.

INDIAN MEDICAL SERVICE—Fourteen Surgeons. Applications, 10th August, to T. P. Pears, Major-General, Military Secretary.

ISLE OF MAN GENERAL HOSPITAL and DISPENSARY—Resident Medical Officer: £100 per annum, rooms, etc. Applications to E. L. Watts, Sec.

KENMARE UNION, co. Kerry—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Sneem Dispensary District: £100 per annum, and fees. Applications, 21st inst., to Thomas M. Jermyn, Hon. Sec., Less Cottage.

KIDDERMINSTER INFIRMARY—House-Surgeon: £150 per annum, furnished apartments, etc. Applications, 9th inst., to T. F. Toens, Honorary Secretary.

KING'S COLLEGE, London—Professor of Materia Medica.—Professor of Comparative Anatomy.

KING'S COLLEGE HOSPITAL—Physician.

LEOMINSTER URBAN SANITARY DISTRICT—Medical Officer of Health: £40 per ann. for two years. Applications, 6th July, to G. T. Robinson, Clerk.

OKEHAMPTON UNION—Medical Officers for No. 2 District, and the Workhouse: £55 and £40 per annum respectively. Applications, 10th instant, to Robert Fulford, Clerk.

OWENS COLLEGE, Manchester—Professor of Anatomy: minimum emoluments, £500 per annum. Applications, 1st August, to the Council, under cover to J. Holme Nicholson, Registrar.

QUEEN'S HOSPITAL, BIRMINGHAM—House Physician: £50 per annum, board, lodging, etc. Applications, 16th instant, to Walter Young, Secretary.

RAWMARSH URBAN SANITARY DISTRICT—Medical Officer of Health: £40 for one year. Applications, 6th instant, to F. L. Harrop, Clerk.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications, 14th instant, to C. L. Kemp, Secretary.

ROYAL NAVAL MEDICAL SERVICE—Surgeons. Applications, 6th August, to A. Armstrong, Director-General.

STAINES UNION—Medical Officer for the Sunbury District: £75 per annum.

STOCKPORT INFIRMARY—Assistant House-Surgeon: £60 per annum, board, and apartments. Applications, 8th instant, to S. W. Wilkinson, Hon. Sec.

SUSSEX COUNTY HOSPITAL, Brighton—Dispenser: £100 per annum, and meat luncheon. Applications, 20th instant, to Arthur Veysey, Secretary.

TENDRING UNION, Essex—Medical Officers for the Great Bromley and No. 6 Districts: £16:15 and £40 per annum, respectively.

WEST NORFOLK and LYNN HOSPITAL—House-Surgeon and Secretary: £80 per annum, board, and apartments. Applications, 11th instant, to the Weekly Board.

WESTMINSTER HOSPITAL—House-Surgeon: board and lodging. Applications, 24th instant, to F. J. Wilson, Secretary.—Resident Obstetric Assistant: board and lodging. Applications, 4th instant, to F. J. Wilson, Secretary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

AITKEN, James, Esq., Surgeon, at Ceres, Cupar, aged 67, on June 25th.

*HARDY, Henry George, M.R.C.S.Eng., at Byer's Green Hall, Durham, aged 48, on June 21st.

MR. MARSHALL MONCKTON, Hurstpierpoint, has received a gratuity of nine guineas for efficient vaccination in his district.

MR. J. BERRY, of Leyland, Lancashire has received a gratuity of £17:13 for efficient vaccination in his district of the Chorley Union.

THE PLAGUE IN TRIPOLI.—The Board of Trade have received a dispatch from Her Majesty's agent and consul general in Egypt, stating that a disease, supposed to be plague, had broken out at Mendj, in the province of Benghazi. The Egyptian government have consequently subjected all arrivals from the infected country to a quarantine of ten days. A sanitary commission has been sent from Benghazi to report on the matter, and in the event of the disease proving to be the plague, it is probable that a resolution will be passed by the Egyptian authorities to repel all arrivals by land and sea from the coast as far as Tripoli.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

M.D., who has written to us two or three times concerning the Poor-law Medical Service without appending name and address, is reminded that no notice can be taken of anonymous communications. If he has any suggestions to offer, and will make them over his own name (not necessarily for publication), they shall have our best attention.

Notwithstanding that nearly every number of the British Medical Journal published this year has included a supplement of eight pages, and that one-third more of original matter has been published this year in the British Medical Journal up to the present date than in any former year, we have still a considerable accumulation of manuscripts from town and country contributors. We would therefore especially ask our correspondents to compress, as much as possible, any communications with which they may favour us, with a view to their publication with the least possible delay.

British Microscopes.

We have seen with regret an attack by Mr. C. Brooke, F.R.S., on the microscopical instruments exhibited by English firms in the Vienna Exhibition. Usually well informed on such subjects, Mr. Brooke has in this matter fallen into serious error. From some accidental misunderstanding, he appears never to have inspected the high powers exhibited by Mr. Pillischer of New Bond Street, or to have done justice to the excellence of manufacture and conscientious workmanship of the microscopical and optical instruments exhibited by that firm. We had an opportunity of seeing these instruments when they left the workshop, and of admiring their accuracy and perfection of finish; and we rejoice to see that Mr. Pillischer's merits have been recognised by the bestowal of the Gold Cross of Merit with the Crown, an order which has been bestowed on only one other firm, that of Hartnack of Potsdam. This is a satisfactory testimony to the excellence of British microscopes.

Dyspepsia.

Sir,—Two notes have recently appeared in the Journal on Dyspepsia and its connection with decayed or deficient teeth. One writer reminds the profession that imperfect deglutition is one cause of dyspepsia; the other, that functional dysphagia sometimes results from it. Are such notes worth the space they occupy in pages already inadequate to record the original matter forwarded for publication? Is it possible that a practitioner exists who fails to inquire into the state of the digestive organs in his dyspeptic patient? Or is it indeed not generally remembered that the process of digestion begins with the act of mastication? In either of these cases, these notes would be invaluable—even as revelations; but it is to be hoped that they possess but little novelty for the general body of practitioners. For my own part, in reading the letter dealing with the first named fact, I seem to be informed of something with which I have been acquainted from the earliest period of youth; and, in fact, on turning to Watson's *Practice of Medicine*, there may be found this cause of dyspepsia recognised, and the mechanical remedy indicated.

The note referring to the second symptom of dyspepsia, in speaking of the unsuccessful treatment of the dyspepsia with electricity and bougies, testifies to so blind a regard for symptoms and disregard for causes, as makes one hope that these measures were not taken by qualified practitioners. Perhaps the cases came to the author's hands from homœopathic care, which essentially concerns itself to obviate symptoms. I am, etc.,

207, Caledonian Road, N., June 22nd, 1874. J. Ashburton Thompson.

Notices of Births, Deaths, Marriages, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Adulteration of Food: Aerated Bread.

Sir,—The recent revelations of the witnesses examined by the Committee of the House of Commons on the Adulteration Act of 1872 are very startling. It appears that the corn-flours sold for infants' food contain nothing but starch; and if it were not for the milk with which they are cooked, the children fed on them would die of starvation. Some years ago, the attention of the profession was directed to the value of aerated bread as a food for infants, boiled with water and some milk added, as that bread, in addition to the starch, contains gluten and protein, which are necessary to give bone, muscle, and strength. Bread made in the usual way by the fermentation of yeast has the first stages of a putrefactive process produced in it, and, when taken into a stomach in which from ill health or the weakness of infancy the gastric juices are not sufficiently powerful to arrest the putrefactive fermentation, it becomes a cause of flatulence, diarrhœa, and infantile convulsions.

The London Aerated Bread Company have recently adopted an improved and patented process for making their bread, by which the flour is first mixed with some malt wine: this sets up a *vinous* instead of a *putrefactive* fermentation, which arrests the decomposition of the gluten and protein in the flour, so that you have in their bread all the building-up properties of wheat, thoroughly well cooked, and in a most digestible form.

The principal objection to the aerated bread by the public has been its want of taste—in fact, its great purity—but the malt-wine gives it a fragrant and milky flavour, which will eventually bring it into great favour with the public. The whole meal-bread manufactured by the company is highly useful as a food for growing children after they have passed the age of infancy; the phosphate of lime contained in it giving growth and hardness to the bone, and preventing that disposition to rickets which town-hred children are so prone to. The bread being very digestible, there is a notion among the labouring classes that it is not so sustaining as bakers' bread; but this is a mistaken idea. There are more nourishing constituents in aerated bread; and as they are readily digested and carried into the circulation, they must give greater support to the system.

I am, etc., M.R.C.S.

Removal of a Broken Glass Syringe from the Vagina.

Sir,—Observing in your Journal of Saturday a case of broken glass syringe abstracted from the vagina, I am tempted to relate a like case which occurred in my own practice when in London. A young woman in some wholesale business in the city had used the syringe in a closet there, and had broken it. The broken end, which is before me now, is two inches long, with one small sharp point extending half an inch further, with this fragment pointing directly downwards, and two or three inches within the vagina. The girl kept on with her business, moving about; and so well packed was it by the soft parts of the vagina, that little injury was done when she came to me. Discovering the size and position of the fragment by a careful (for myself as for her) examination with the finger, I cased my forefinger with a double fold of fine rag, fastened round with fine thread, and very slowly and carefully insinuated it into the fragment until my finger and the glass were as one. A slight bend of the finger gave a sufficient hold; then, with a direction to force well down, and gentle traction with the finger, it came away without catching the membrane. No evil resulted, and the girl was at work on the morrow.

I have heard lately of a like case in one of the hospitals, which proved fatal. I think the insertion of a speculum in my case would have forced a fold of the lining upon the sharp point referred to. I am, etc.,

June 15th, 1874. W. Rendle.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, June 29th; The Carlisle Patriot, June 27th; The Macclesfield Advertiser; The Shield; The Glasgow News; The Manchester Guardian; The Cork Examiner; The Sunderland and Durham County Herald; The Cork Constitution; The Blackburn Standard; The Berkshire Chronicle; The Brighton Daily News; The Dublin Evening Mail; The York Herald; The Kendal Mercury; The Western Mail; The Bath Express and County Herald; The Pembrokeshire Advertiser; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The British Press and Jersey Times; The Brighton and Dover Daily Mail; The Torquay Directory; The Liverpool Daily Courier; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Albert A. Gore, Dublin; Dr. Dyce Duckworth, London: Dr. J. Hughlings Jackson, London; Dr. Sankey, Cheltenham; Dr. Wilson, Cheltenham; Dr. George Johnson, London; Mr. T. F. Sanger, Seaford; Mr. M. Hall Wright, Birmingham; Dr. Bond, Gloucester; Dr. Palfrey, London; Dr. Hope, London; Dr. Eustace Smith, London; Dr. J. Northcote Vinen, London; Dr. Stevenson, London; Ou Dublin Correspondent; Mr. Harris, Worthing; M.R.C.S.Eng.; Dr. Alexander Young, Kirkcubbin; Mr. G. W. Crowe, Hartlepool; Inadequate; Mr. Lawson Tait, Birmingham; Lene; Mr. H. G. J. Atkinson, London; The Secretary of the Manchester Medical Society; Dr. J. G. Swayne, Clifton, Bristol; Dr. Cornelius Fox, Chelmsford; Mr. W. C. Arnison, Newcastle-upon-Tyne; Dr. C. Parsons, Dover; Mr. O'Connor, Liverpool; Anti-Humbug; Mr. Eastes, London; Mr. Pugin Thornton, London; Dr. Livy, Bolton; Dr. Thomas Wright, Cheltenham; Our Glasgow Correspondent; Dr. George Wilson, Leamington: Mr. A. T. Norton, London; Dr. Jukes Styrap, Shrewsbury; Dr. H. M. Tuckwell, Oxford; Mr. Lennox Browne, London; Dr. Cornfield, Elland; Mr. Hunting, London; Dr. Young, Malton; Dr. R. Stewart, Belfast; Dr. W. W. Keen, Philadelphia; An Associate; Dr. Robert Newman, New York; Mr. Bellamy, London; Dr. Heywood Smith, London; Dr. Walters, Reigate; Mr. Cowell, London; Mr. T. Vincent Jackson, Wolverhampton; Dr. Gilbert Child, Oxford; The Secretary of the Epidemiological Society; Dr. Henry Barnes, Carlisle; Dr. Balthazar W. Foster, Birmingham; Dr. Wilberforce Arnold, Glasgow; Mr. James Sawyer, Birmingham; Mr. J. J. W. Bunning, Newcastle-upon-Tyne; Dr. Kelly, Taunton; Mr. John Berry, Leyland; Mr. T. Holmes, London; Dr. J. W. Langmore, London: Our Edinburgh Correspondent; Mr. T. M. Stone, London; Messrs. Longman and Co., London; Miss Broxholm, Sunbury; Mr. W. Fairlie Clarke, London; Surgeon-General Maclean, Netley; Mrs. Smerthwaite, Coal Clough; etc.

THE HASTINGS PRIZE ESSAY,

1873.

ON THE PATHOLOGY AND TREATMENT OF OVARIAN DISEASES.

By LAWSON TAIT, F.R.C.S.,
Surgeon to the Birmingham and Midland Hospital for Women, etc.

VII.

PARTAKING of the nature of the cysts last described, to some extent and in some way yet inexplicable, are the mysterious productions known as dermoid cysts.

That these tumours are the result of change in an ovum is about the only part of their history regarding which there can be any certainty. But there may be doubt as to whether the abnormality takes origin in an ovum of the individual bearing the tumour, or in the ovum from which she herself was developed; in other words, whether the tumours are abnormally developed ova or are due to inclusion. That they have any origin in impregnation, we may at once dismiss as excluded from serious consideration, since they have been frequently found in newly-born children, and their most common seat is in the ovaries of young women, chiefly, according to Mr. Spencer Wells, of fair complexion.

The question of their origin, then, lies between the hypothesis of an effort on the part of some overactive ovum in the direction of parthenogenesis which has been based by Dr. Ritchie on Blumenbach's less scientific and more scholastic expression of "excess of formative nisus", and the equally hypothetical process of inclusion. As far as we know anything about inclusion, it follows the usual law of teratology, that any attached individual, whether developed or blighted, is symmetrically connected. Thus the Siamese Twins and the Millie-Christine monstrosity have the attachment in similar and identical structures, the one to the other (see Vrolik, Von Baer, etc.). I have found nowhere on record that any fœtal remains have been found attached to an ovary, or situated in an ovary in any way which could find it a classification under this law. The tissues found are always rudimental, and such as, while they are the product of the ovum after conception, have no anatomical analogy whatever to the tissues of the ovary. I am disposed, therefore, to set aside entirely the view of their origin by inclusion, as the ovary is about the most unlikely structure in the embryo for such a process; and, if they had their origin in such a way, we ought to find dermoid cysts in the testicles of the male quite as often as in the ovaries of women.

There is only left, then, the explanation that dermoid cysts are the result of an altered nutrition of one or more ova; and, if I may lay down a dogma from my own dissections, I should say, of one ovum only. Dermoid cysts are generally unilocular, and, when they are not so, it is not difficult to show, as has been done by Dr. Ritchie, and has been evident in one or two specimens that I have examined, that the secondary cysts are formed by the mother cyst being partitioned off by the growth of ridge-like walls on the inside of the cyst.

The occurrence of cysts having a structure somewhat resembling the dermoid cysts of the ovary in other parts of the body, especially in the neighbourhood of the orbit, has led to confusion in the discussion of the origin of the ovarian cysts. In the orbital cysts we have only aberrations of the normal process of the involution of epithelium from which the structures are developed, and there is no notion, as far as I can find, of these extremely small congenital cysts, which never enlarge in after life, having been found to contain anything but purely epithelial products, such as hair, dead epithelial cells, and fat. In ovarian cysts, however, the variety of products is so great, as to put all analogy between them and inclusive cysts out of the possibilities. Thus, in one ovarian cyst which I examined under the direction of my friend and teacher Dr. Grainger Stewart, many years ago, in the substance of a wall between two loculi, were spread out flat bones which were undoubtedly some of the bones of the skull, and near them could be felt the representatives of the bones of a limb arranged in order. True bone is frequently found in ovarian cysts, and in some that have in them no dermoid structures at all.

Sir James Paget refers to a remarkable specimen in the museum of St. George's Hospital, which exhibits a mass of fatty matter and a lock of dark hair, one and a half or two inches long, attached to the inner surface of the dura mater at the torcular Herophili, found in a child 2½ years old, in whom it appeared to be congenital. He adds, in a foot-note, that Dr. John Ogle, who had carefully examined the specimen, and described it to the Pathological Society, was of opinion that the cyst was originally of extracranial formation, but that, at an early period of fœtal life, before ossification of the occipital bone had taken place, the cerebral membranes and scalp had become adherent, and that, as the development of the bone went on, the outer integument was drawn in by retirement of the cerebral membranes. In this way some of the cutaneous structures had become included within the cranium. He considers that the cyst possesses characters which warrant the above supposition, and he adds that, in a similar manner, cysts within the orbit may extend into the cranial cavity. No such explanation could include the phenomena of the ovarian tumours which contain such structures as teeth, bone, cartilage, striped muscular fibre, brain and nerve-tissue, etc. The true solution can only be found in a hypererchetic development of an ovum, a cell which has in it the power of formative origin of all these structures. The process of growth of the ovum after impregnation can be followed only after the assumption, either expressed or unconsciously accepted, of such a hypothesis as is contained in Mr. Darwin's "Pangenesis". The germ contributed by the male contains, we know only too well from pathological experience, gemmules having certain powers and functions; and we may, therefore, assume, as indeed we also know, that the female germ contains also such gemmules. It may be that the ovum has in it the origin-buds of certain tissues, and that, under exceptional hypererchetic action, they may go on to the rudimental formation of these tissues without a fusion with the male germ. More careful and accurate description of what is found in dermoid cysts may help to solve this riddle; still better, perhaps, a careful consideration of what tissues are not found in them.

Sir James Paget has, it seems to me, struck the key-note of the pathology of dermoid cysts when he wrote, "It is, perhaps, only during the vigour of the formative forces in the fœtal or earliest extrauterine periods of life that cysts thus highly organised and productive are ever formed." A most important point in the pathology hangs on this sentence, and can be decided only by a determination of the age at which such tumours are most frequently found. It is, of course, evident that the ages at which these tumours are removed by the operating surgeon cannot be taken into account, as they are of slow growth, and have often been recognised as being present for many years without perceptible increase. They are quite unlike, in this respect, the ordinary adenoid tumours. Their contents even show that their existence must often have been contemporaneous with the life of their bearers; for we find large balls of hair, the result of the epithelial growth and shedding of a nipple-like process not bigger than the tip of one's finger; and in one sac over three hundred teeth have been found, resembling in many respects milk-teeth; so that we may reasonably suppose that they were the repeated products of a limited dentigenous area. In one of Mr. Spencer Wells's cases, the preparation of which is in the Hunterian Museum, a piece of bone was found resembling greatly a part of the upper maxilla and sphenoid bones, and containing mature molar teeth. In fact, inspection of the specimen almost carries conviction to the mind that the bone and tooth-sacs were produced at an early, perhaps intrauterine, period of the life of the patient, and that they grew and matured as she did till the tumour was removed, at the age of 39.

Dermoid and dentigerous cysts have been so frequently found in children, that it may be suspected that, if the histories of all such as are removed by operation could be traced, they would be found to be, as Paget suggests, either congenital or originating very early in life. Indeed, it seems to me to be impossible that it can be otherwise when we remember how soon after birth all processes of development must cease, and those of growth alone are continued; impossible that new tissues, so strange and displaced, should be developed after the formative powers have ceased to produce new tissues in normal positions. The more we know of pathology, the more we find its processes resemble those of physiology; and it seems to me far more simple to explain the occurrence of dermoid cysts in the ovary by hypererchetic action of an ovum at a time of life when such processes are in vogue in the economy than at some other time when they have entirely ceased everywhere else. In the former part of my paper, I have shown that the formation and destruction of ovarian cells goes on from the earliest to the latest times of existence, the degree of their maturity varying with the periods of life. Fully dilated Graafian follicles have been seen in the ovaries of newly born children, containing ova which are minute, transparent, and structureless cells. But supposing that, during the developmental period of life, some stimulus be given to one Graafian follicle and its contained ovum, which for want of better knowledge we shall call accidental, and that this should lead to the premature maturation of the ovum, so that, were the rest of the organism ready for the process, it might be carried into the uterus and then be impregnated; instead of destruction by rupture of the ovisac, suppose that it remain in the ovisac and share alike with the rest of the economy in developmental activity, there can be only one result, and that is the formation of structures in an incomplete way, which it would evolve completely under more favourable conditions.

In support of my supposition, I may draw attention to the fact, that dermoid cysts have been found in the peritoneum with attachments to its surface, but without connection to either of the ovaries. Such a tumour may be one which I attempted to remove a few days ago, and which, while so intimately and most extensively adherent to the peritoneum that I had to leave it, I had reason to suspect had no ovarian connection. Might not such be developed from an ovum which had escaped from the ovaries in early life, and become attached to the peritoneum, as we know they do in after life, and there have carried on its attempt at parthenogenesis?

The logical conclusion of this view is, of course, that if such an ovum could get into its uterus after its escape, it would develope into a perfect instance of parthenogenesis—a speculation, of course, but no wilder than some of the facts of embryology seemed to us before we understood them.

Whatever be the value of the suggestions I have thrown out, they are certainly consistent with my own clinical experience; for, in one case where I removed a dermoid cyst in a young woman, there were many reasons for believing that it had existed long before puberty. The oldest patient from whom I know that a dermoid cyst has been removed is a case of my own, the woman being in her forty-fifth year. The tumour weighed only six and a half ounces, and was full of hair, which had grown and been shed from one little spot of skin not bigger than the tip of my little finger. The amount of hair in the sac, had it grown from a similarly sized area of scalp, would have taken almost a lifetime to grow and be shed. In Mr. Wells's oldest case (38), the tumour had been recognised for eighteen years; and, in a case (37) not operated upon, but examined after death, the tumour had existed twelve years. The usual age for dermoid cysts to come under the notice of the surgeon is from 17 to 20 years, and then it is generally certain that they have been long in existence. After puberty, the recurrent congestion of the whole sexual apparatus must stimulate into growth what is in readiness for it after having been developed long previously, as I have suggested in my hypothesis. The results of that development may remain of minute, or even microscopic, size, until the stimulus of the menstrual hyperæmia so increases them as to make them of surgical importance; just as Hunter's celebrated experiment of the transplantation of the spur of the cock into his comb resulted in an extraordinary increase in length and size of the spur by the altered character of its hæmic nutrition.

Briefly, then, I believe dermoid cysts to be the result of hyperechetic development of an ovum in fœtal or infantile life, growing into a tumour during and subsequently to puberty.

Of the modes of origin of the other forms of ovarian cystic tumour, many ingenious explanations have been given, though not one has yet met with general acceptation; indeed, all are too vague and incapable of ready demonstration to commend themselves to practical minds. For this reason, and, further, because my space is getting nearly run out, I think it needless to recapitulate even briefly the various views of the pathology of adenoid ovarian cysts which have been recently advanced. I retain the term adenoid, because it conveniently classes the tumours by reference to the tissue from which they originate, and by the hyperplasia of which they are formed, without giving any theoretical explanation of their formation. All non-cancerous tumours of the ovary are, therefore, adenoid; even the dermoid tumours are so to a certain extent, for they are the result of increased growth of one or other normal constituent of the gland, without alteration, save in quantity. Cancerous growths, on the other hand, introduce tissue which is either not found in the gland normally, or they produce it in a form which is immature.

There are two methods of origin for pathological cysts which are universally accepted, and both of which are instanced in the ovary. The first is by occlusion of normal ducts or tubes, as best seen, perhaps, in the kidney and salivary glands, and in connection with the ovary in the form of cystic dilatation of the Fallopian tube or of its trumpet-shaped extremity, after adhesion to the ovary—tubal and tubo-ovarian cysts. Of these I shall not speak, as I have not met with a case of either. The other form of cyst-growth consists in the dilatation of a physiological cyst-cavity by its own secretion poured out to an abnormal extent; and this secretion may either retain its original character and constitution, or be altered by the addition of blood ,or of some of its usual or exceptional albuminous products. This is the common form of cyst-formation in the ovary; and, in the multiple adenoid tumour and in the dermoid, we have already seen instances of it. The former illustrates the formation of cysts by the retention of its products in the cavity of the normal sac of the gland, these products being the fluid cell-substance and its nucleus the ovum. This is accomplished, as far as I could discover from the specimen I have described, by hypertrophy of the fibrous covering of the gland—a cirrhosis of the ovary; and the nucleus, the ovum, seems to have retained its normal appearance until destroyed by prolonged maceration and pressure. It is, however, possible that some defect of action in the nucleus may have to do with the non-rupture of the sac; for, under healthy conditions, it is undoubtedly the maturation of this nucleus that governs the rupture of the wall of the ovisac, and enables the perfect ovum to escape.

The dermoid cysts, I have suggested, are due, on the other hand, to an altered and increased activity of the cell-nucleus in early life, the results remaining latent for years, until re-excited by the great systemic change. We may look, then, to some other altered condition of the cell-elements for explanation of the remaining variety of cystic tumour of the ovary which has been termed by Mr. Wells and others "proliferous".

I do not like this term as applied to the compound cysts of any kind, for it assumes, what I am quite certain is not true, that the large cysts are directly the parents of the small ones. Thus Mr. Wells, at page 25, defines: "Proliferous cysts—parent-cysts with secondary cysts growing from the interior of the cyst-wall." These minor cysts are secondary, as far as date of growth is concerned; but they are the younger brothers and sisters, not the children, of the larger sacs. In fact, the very caution which Paget gave his hearers in using the term *proliferous* is disregarded in such an application of it, as may be seen from the following quotation.

"In an ovary, it is not unfrequent to find many small cysts, formed apparently by the coincident enlargement of separate Graafian vesicles. These lie close and mutually compressed, and, as they all enlarge together, and sometimes, by the wasting of their partition-walls, come into communication, they may at length look like a single many-chambered cyst, having its one proper wall formed by the extended fibrous covering of the ovary. Many multilocular cysts, as they are named, are only groups of close-packed single cysts; though, when examined in late periods of their growth, and especially when one of the groups of cysts enlarges much more than the rest, it may be difficult to distinguish them from some of the proliferous cysts." (*Surgical Pathology*, p. 415.)

The formation of a compound cystic tumour in the ovary, whether it be of the multiple variety or of the less complete kind of which I am about to speak, may be very well illustrated by blowing soap-bubbles in a basin. If the fluid be not viscid enough to enable the bells to retain their form, then the normal condition of the ovary is represented, its cells bursting and disappearing. The cell-growth is constantly going on, and there occurs some alteration in the state of matters which prevents the cell-walls bursting; the fluid in the basin is so viscid, that the bells do not break, and bubble after bubble is formed, some larger, some smaller, until a large multicystic tumour is the result. The actual appearances of the cystic ovary may be very well imitated in the basin of soap-lees. A large cyst can be made with little ones crowding into it, looking like its offspring, and the walls between two or three may be broken down, making one larger multilocular—the remains of the intervening walls not being left in the instance of the soap-bubbles. If they had been left, the appearances would be identical with what is represented diagrammatically for ovarian tumours in Mr. Wells's book on page 39. In the ovary, we have the continual production of cells, representing the continuous blowing of the bubbles; and we have only to discover what it is that is analogous in the ovary to the increased viscidity in the solution of soap; what it is that keeps the cysts in their entirety, perverting a physiological into a pathological process.

I have already said that I have failed to find anything like ova in any cysts of the tumours I have examined, except the one which I have described; and I have mentioned that I have not seen any reason to believe that the little secondary cysts met with in the walls of some of the larger sacs are what Dr. Ritchie has interpreted them to be, dropsy of the blastodermic vesicles; chiefly because I have failed to see round them anything like remains of the membrana granulosa, and I have seen three or four of them on more than one occasion on the wall of the same sac. In searching for ova in the cysts of the two tumours where I found them, I had seldom occasion to look for them in the walls of the cysts, as they seemed to have been floating about loose, or to have been set free by the opening of the sacs. In other cases, not finding them by the method I have already described, I adopted the further plan of first isolating the cyst to be examined, and, having opened it, I searched carefully in every sediment of its contents for the ovum. Not finding it, I turned the sac inside out over a ball of cotton-wool soaked in glycerine, smeared its everted surface with the same substance, and, covering it piecemeal with a thin glass, I carefully examined it over its whole extent by reflected light. I never found anything I thought was an ovum.

I cannot reconcile this discrepancy between my observations and those of Dr. Ritchie otherwise than by supposing that, having been one of the discoverers of ova in a certain kind of ovarian tumour, he was too anxious to apply his principle of explanation to all; or he must have had a plan of examination more successful than mine.

The fact that I never found ova in any of the sacs of these multicystic tumours, even the smallest or in those with the most limpid contents, led me to entertain the opinion that in this we have an explanation of their formation. The function of the ovary is one of cyst-formation from its earliest existence to its latest, and in its pathology we need not go far away from its physiology. It seems to me, therefore, *à priori*, very unnecessary to resort to the ingenious explanations of cyst-formation advanced by Dr. Wilson Fox, though they may be fitted to exceptional cases. Experience in the examination of the growths themselves has strengthened this view; for my wonder is greater the more I see of them, that they do not occur more commonly, and with more complexity than they do, considering the apparently reckless amount of ovarian cyst-production that goes on throughout life.

The aim and object of this cyst-formation is the production, maturation, and discharge of the ovum. But if the ovum be not formed, or if it be produced only to a rudimental extent, may it not happen that the cyst will not be ruptured, but go on aimlessly expanding? Whatever be the source of the change, we know that it does not affect one ovisac alone, but may influence them in great numbers, whether it be in a tumour where the ova have been matured and subsequently prevented from escaping by sclerosis of the coat of the ovisac, or in a growth where the ova are not to be found. There is a great clinical difference between these two kinds of tumour; for in the one the growth is very limited and slow, and in the other it may be, and often is, extremely rapid, and is practically unlimited in extent. In fact, the growth of these cysts without ova partakes somewhat of the character of malignancy, assigned to them originally by Bright for clinical reasons. Malignancy, apart from any association with cancerous structure, is always indicated histologically by a tendency to the production of a form of tissue which is young and immature, and this is certainly the condition of these ovaless ovisacs.

There is in fact a reversion to the premoliminal condition of the ovary, as far as the ova of the affected ovisacs are concerned. The whole ovary does not, of course, become simultaneously implicated, and matured ova may be given off by some ovisacs still unaffected and within reach of the Fallopian fimbriæ. Impregnation may thus occur from a degenerated ovary, though it is, of course, much more likely to occur from the one which remains healthy.

We have in these facts the reason that these adenoid tumours occur with greatest frequency during menstrual life, if indeed a future experience may not yet show that they do so exclusively. The menstrual congestion and excitement induces a dropsical distension and growth of a cell which would not be so perverted during childhood or senility, when its blood-supply would be sufficient only for passive nutrition.

The growth of cysts in the wall of the major sacs, appearing sometimes outside and sometimes within in great numbers, depends wholly on the relation of the original adenoid tissue to the cyst-wall; and, as that wall grew primarily in that tissue and surrounded by it, it would be indeed surprising if it did not carry along with it in its expansion some of the cells of the *couche ovigène* from which it sprang. These displaced cells have in their turn a stimulus for development, prematurely, perhaps, on account of the increased hæmic activity of their abnormal surroundings, due to the growth of the sac. They also go through the process of dropsical distension, developing no ovum, not rupturing, but becoming secondary cysts, perhaps ultimately to rival, or even to excel, that which has preceded them, on which they grew, and of which they have been supposed to be the offspring.

The views which I have here advanced are such as do not admit of detailed evidence in support of them within the limits of such an essay as this. They are the results of some years of study and much personal investigation, but even still they are so crude as to be unlikely to meet with general acceptation.

There are, I know, ovarian growths to which none of my explanations would be, in their present form, applicable; and, as my experience grows, I know I may have to alter or altogether abandon them. As they are at present, I submit them for criticism with a faint hope that I may receive encouragement to continue in a line of investigation and practice to which I have devoted myself.

THE LOCAL TREATMENT OF CYSTITIS IN WOMEN.*

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In choosing the heading of my paper as I have done, namely, "The Local Treatment of Cystitis in Women", I have been guided by the results of my own experience; because, although I do not altogether ignore the benefit of drugs given by mouth, nor the advantage of lulling the system by anodynes, particularly by opium, nor the benefit of rest and improvement of general health, yet, comparatively, their influence is very feeble, tedious, and disappointing.

When I speak of cystitis, I mean the more severe forms; not the trivial mucous irritation which subsides in a few days, but rather that severe form which, amongst other causes, arises from the effects of labour-retention, from malignant disease of the organ, or from paralysis, etc. I have seen internal remedies tried in these cases for a long time, till one has been tired of using them; and, beyond the use of anodynes and those remedies which correct any excess of an acid or alkaline condition, I have no faith in any; I mean as direct means of cure. But, with regard to the local treatment, I can speak far otherwise; and I may say, in view of the benefits thus resulting, that to temporise with the constitutional plan is only to allow a very distressing malady to harass our patient when the relief lies in our hands, if we will use it. With regard to the correctives of the state of the urine, according as it is more acid or alkaline than normal, we should always examine it, so as to make out this point. If, as far as we can make out, the urine enter the bladder overcharged with lithates, then a cautious use of alkalies coupled with opiates will assist; taking care that the alkali be suspended as soon as the urine becomes natural in this respect. Again, should we find it alkaline, it may be advisable to employ some mineral acid for a time, also coupled with an opiate. With regard to an opiate, there is no doubt that this remedy is the most valuable of all internal remedies, partly because it lessens reflex sensitiveness, and thus the bladder is not so frequently hurting itself by its forcible contractions, and partly because it gives relief from pain.

Now I will suppose we have a case of severe acute cystitis, with much pain and frequent or constant desire to micturate; severe scalding along the urethra during micturition; the bearing down constant and intolerable; irritative fever; urine loaded with mucus, purulent and bloody. The first point to make out is, whether the urine be still acid or have become alkaline. I may here add, that it is seldom acid in a case such as here supposed; but at the early stage it may be, before pus has appeared. Generally, it is very alkaline, and commonly also ammoniacal. Supposing it is alkaline and ammoniacal, then proceed in this way. Take a catheter—gum elastic is best, and still better if open at its end instead of the side, as usually made—let it be well greased or oiled and passed gently just into the bladder. Draw off the urine. (The open-ended form is of great advantage in many cases where the mucus is copious and very ropy.) Be careful to enter the bladder the least distance possible, and withdraw the catheter just without the neck when the bladder is on the point of being emptied. This saves the mucous membrane from flapping down on the end. Then, with a syringe, throw up through the catheter warm water slightly acidulated with either nitric, hydrochloric, or acetic acid (vinegar does very well); if nitric or hydrochloric acid, about two drops of the strong to the ounce of warm water. As soon as the patient complains of desire to micturate, allow it to flow away again. More of this acidulated water may be used, till the bladder seems clear of the phosphates and mucus. About half a pint of acidulated water will generally suffice.

Then inject also through the catheter about one grain of morphia dissolved in about one ounce of water; quickly withdraw the catheter from the urethra, and instruct the patient to retain it as long as possible. It is a very rare instance if this single application do not produce very marked benefit. In the very acute cases, the passing of the catheter requires tenderness and care, because of the great sensitiveness of the urethra and lower bladder. But, if the precaution be taken of not introducing the catheter just within the bladder, much pain is saved. The exact distance can, at the first passing, be marked on the instrument. But to avoid the contact of the catheter with the bladder during the washing out, as much as possible, I always pass the injections into the bladder without entering its cavity. This can be readily accomplished by employing an open-ended catheter; a little extra force on the syringe will drive the fluid past the sphincter. If the injections are to be withdrawn, then the instrument can be made to enter, but only, as above mentioned, so far as may be necessary to allow the fluid to flow.

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* Read before the East Kent District of the South-Eastern Branch.

This treatment should be repeated twice daily, if the case be very severe, and especially in the case of retention, because of the ammoniacal decomposition of the urine; and, as the urine must be drawn off at least twice a day, there will be no additional distress given by passing the catheter.

In regard to the frequency, there is one point to be considered—viz., the irritation to the urethra caused by catheterisation. Of course, it is undesirable that we should pass the instrument more frequently than needful; yet it is to be also noted that frequent micturition itself causes soreness or abrasion of the urethra; so that, if we succeed by our treatment in mitigating the frequency of urination, we shall compensate for this; and this is in accordance with my experience. By the treatment above described, we do very quickly lessen the frequency, and more than entirely compensate for the irritation of catheterisation.

Where the urine has not become markedly alkaline, we may content ourselves by simply injecting the solution of morphia; yet, if we first of all wash out the bladder with warm water or warm solution of permanganate of potash, we shall much expedite the cure. The strength of the lotion should be three times that generally in use, as it is very rapidly decomposed by the urine. When this has been allowed to flow away, we may inject the morphia solution.

After some days of this treatment, I sometimes employ, instead of the permanganate of potass, a solution of chlorate of potassa, about three or four grains to the ounce; using plenty, drawing it off after a few minutes, according as it gives pain, and then injecting the morphia.

Regarding the dose of morphia, I may add that, if there be no blood in the urine and the patient feel no constitutional effects from a grain, I increase it to two grains. If blood appear in the urine, it is a sign of some abrasion, in which case the morphia is more likely to be absorbed; yet I have never seen any unpleasant symptoms even from two grains. The more we use, without affecting the system much, the better; locally subduing the nerve-irritation and the tenesmus of the bladder, and the crushing of the mucous membrane which the contraction produces.

As the acute symptoms subside, we may employ more astringent washes; such as two or three grains of tannin in each ounce of warm water, or three or four drops of solution of perchloride of iron, using morphia immediately afterwards, as before mentioned. Our choice depends upon the amount of pain caused, the object being not to cause more than necessary. If the urethra be very tender, and catheterisation seem to produce irritation, I omit all treatment for a day or two, after which we can resume it with much benefit. If after a fortnight the main symptoms be subdued, but the urethra seem very tender, I apply an astringent directly to it. A bougie or catheter, covered with tannin, made very smooth, and dipped in gum-water before introduction, is not very painful, and answers well. A probe, on which a film of nitrate of silver has been fused, may be tried. Of course, pain succeeds; but, on its subsidence, patients have expressed much relief. However, in the more acute stages and forms of cystitis, one should avoid this, unless the urethral irritation be very marked. Later on, this may be freely adopted and other remedies tried, as passing a stick of fused anhydrous sulphate of zinc, or even mopping over the urethra with solution of perchloride of iron, carried up by a probe covered with cotton-wool or similar material. This irritation of the urethra is the cause generally, in cases with frequent micturition, of much additional suffering, and, by its reflex action, keeps up the irritation of the bladder; so that we may say they play into each other's hands. The urethra bears active treatment better than the bladder, and I have even dilated it and mopped it over with solution of perchloride of iron, with great relief the next day.

But, when cystitis has become chronic before we see it, or we have arrived at the same condition, but much earlier, by our treatment, we sometimes find it troublesome to completely cure the complaint. I have found, at this time, the injection of a solution of nitrate of silver of much service—from five to ten grains to the ounce. I have even used it up to fifteen grains to the ounce. This causes some rather severe pain for a short time, but much relief afterwards. Of course, two grains of morphia are left in afterwards. This may be repeated a week later. Or, instead of the nitrate of silver, I have employed perchloride of iron stronger than before mentioned (ten minims to the ounce). Now and then, for a few days together, it is well to leave off treatment in the chronic stage, to see how far the local interference may be rather keeping up irritation. I may be thought rather to be condemning local treatment by thus remarking, but really it is not so; we can, by local treatment, soon make a most distressing malady a bearable one; yet, at the same time, we know that frequent passing of the catheter may cause irritation, but slight only compared with acute severe cystitis. It is only when we come to the end of the case that we have to note the possibility of keeping up a slight irritation by our too frequent action.

I may add that, in the acute stages, the warm hip-bath, and warm sponge to the genitals, are not to be omitted, together with perfect rest in bed; the bowels must be kept gently relaxed; the dietary should be very simple and light, such as will naturally commend itself to our judgment upon common principles. But on no account should any kind of alcoholic beverage be permitted; and this rule should be observed rigidly during the whole period of the complaint, excepting only in such cases as it is imperatively necessary from other conditions of the patient's health.

I have thus only rather shortly sketched out the plan which I have used and would strongly recommend to your notice. The benefit of such management is very marked in cases of paralysis, where, from retention or the rapid ammoniacal decomposition of the urine, the distress and constitutional irritation are very distressing; and thus we can often lessen the chance of the extension of the irritation to the kidneys. Again, in malignant disease, the simple injection of acidulated warm water gives amazing comfort, removing the phosphates and ammonia, and, when to this is added the morphia, a wonderful comfort is felt. Indeed, so much relief is obtained, that, with a large calculus in the bladder, its presence is almost entirely unfelt if morphia be daily injected.

I would recommend the extension of this treatment to inflammation of the male bladder. The same precautions can be taken regarding the entry of the catheter. I have found that it is not needful to pass the end through the sphincter; but, if an open-ended catheter be employed, the fluid will find its way through readily. If the catheter be only passed about three or four inches, even then the fluid will find its way into the bladder; and this is an advantage for the male, as the area of urethral irritation by catheterisation is thereby lessened.

After cystitis has lasted some time, irritability generally exists for some considerable period afterwards. This is much lessened by occasional morphia injections; but it may very possibly be due to the contracted state of the bladder, which cannot be quite overcome by the will, although the exercise of the power of retaining urine increases the power of the sphincter, and consequently the capacity of the bladder. In this case, we may often succeed with a plan which I have some time ago, and again more recently, advocated, namely, gently distending the bladder with warm water by means of a syringe, which frequently overcomes the difficulty in a few days.

CASE OF ANEURISM, WITH PARALYSIS OF THE LEFT RECURRENT LARYNGEAL NERVE.

By EDWARD T. WILSON, M.B., F.R.C.P.,
Physician to the Cheltenham General Hospital and Dispensary.

A CASE which was recently in the Cheltenham General Hospital so fully bears out the observations of Mr. Norton in the JOURNAL of June 20th, that I think it may be worth recording.

A labourer, T. D., aged 48, was admitted as an in-patient under Dr. Abercrombe early in May last, suffering, as he said, "from a beating in the chest and hoarseness". This man's own account was, that he was carrying a heavy ladder about two years ago, when he felt something tear and give way between the left clavicle and the shoulder-blade of the same side. He was not disabled from work, nor did he suffer much pain; but shortly afterwards he began to feel the pulsation in his chest, which had lately been more troublesome. He had been doing his work, however, and was very anxious to return to it. The general health was good, and he complained chiefly of his hoarseness and an uncomfortable feeling as if something were out of place in his throat. On examination, a pulsating tumour was discovered, deep, but easily defined, behind the inner third of the left clavicle. There was dulness extending upwards to the apex of the lung, but not inferiorly beyond the lower margin of the first rib. A to-and-fro murmur was heard over the tumour, and a soft systolic *bruit* over the apex of the heart. No pulsation could be felt in the left carotid artery, and in the left radial it was barely perceptible. He had suffered from time to time from headache, and, for some time after admission, complained of a numbness in the left leg. No difference, however, could be detected between the right and left femoral arteries.

The origin of the aneurism was somewhat uncertain. This man's own sensations at the time would seem to point to the subclavian. What I wish to notice, however, is the result of pressure upon the recurrent laryngeal nerve.

The man's throat was a peculiarly favourable one for observation, and tolerant of the instrument, so that the most perfect and prolonged views were obtained by artificial illumination and by sunlight—the bifurcation of the trachea being easily seen by the latter. On examination, the left vocal cord was seen to be *tense and absolutely motionless.* During ordinary respiration, the right cord showed very slight movement; but, on forced inspiration, it moved freely from the mesial line; and at the same time the aryepiglottic folds, with their contained cartilages, were drawn over to the right, giving the upper opening of the larynx an unsymmetrical outline. In phonation, the right cord approximated to the left, but did not appear to cross the median line. The left cord under all circumstances remained absolutely rigid; its surface was slightly congested. Otherwise the mucous membrane of the larynx was perfectly healthy. The voice was slightly husky and uncertain, a high note being occasionally produced involuntarily.

In this case, as Mr. Norton observes, paralysis of all the intrinsic muscles of the left side left the crico-thyroid free to act, with the result of a combined tension of the left cord. At the same time, the right crico-arytenoideus posticus was enabled to disturb the symmetry of the arytenoid folds, in the absence of any counteracting force from the muscles of the left side.

The position of the left cord during forcible inspiration was not far removed from the median line; and it seems certain that suffocation would follow, were the right cord to be affected and to a like extent. In a case of aneurism very similar to this, given by Dr. Morell Mackenzie in his work on *Hoarseness, Loss of Voice*, etc., both cords are described as having been affected to a limited extent, although one recurrent nerve only was involved. "Neither of the vocal cords," he says, "is so much drawn aside in inspiration as is commonly the case." The left, however lay nearer to the median line than the right; and the left capitulum Santorini was nearer the median line, and on a rather higher level than its fellow. In the present case, sluggishness of the right cord during ordinary respiration was remarked; but its free movement during a forced inspiration makes it plain that the action of the muscles on the right side was not really impaired. The man will probably come under observation again, and it will be interesting to see if the muscles of the right side do become affected in a case where the pressure is so decidedly limited to the right recurrent nerve.

ANEURISM IN THE GROIN AND HAM OF THE SAME SIDE; LIGATURE OF THE EXTERNAL ILIAC ARTERY; GANGRENE; AMPUTATION OF THIGH: RECOVERY.*

By THOMAS DIVER, M.D., Southsea.

It has so happened that the honour of being the first to address you upon a case of interest since the formation of the South Hants Branch of the British Medical Association has fallen upon me, and, before proceeding to do so, allow me to congratulate you—first, on the very great success which has attended the efforts of Dr. J. Ward Cousins to unite us in a body, meeting on occasions to discuss matters of professional interest tending to our advancement and improvement in the practice of our profession, and, secondly, on your having secured as your President a gentleman so highly respected, I might even say beloved, by every one of his professional brethren for many miles round the spot where he has practised his profession with so much honour and credit to himself for now, I believe, nearly half a century. I am sure that it is considered by you all a honour to have him at your head, and that it augurs well for the success of this Branch as a district medical society. The case which I am about to introduce to your notice is, on account of its rarity. of peculiar interest.

Aneurisms are not rare in hospital practice, but I think that very few surgeons can say that they have seen a femoral aneurism necessitating the ligature of the external iliac for its cure; and still a less number, that a case of double aneurism affecting the same side has come under their observation. It is not my intention, in bringing this case before the Society, to give you a clinical lecture, or to presume that it is in my power to add to your knowledge on the subject of aneurism generally, but merely to report a case which, by the force of many circumstances, has turned out successful, and which possesses so many points of interest as to warrant my doing so.

A fine-looking, well nourished man, named George Hammond, aged 35, was admitted into the Portsea Island Union Workhouse Hospital some time in January last. I believe that he was advised to seek admission by Mr. Bentham, one of your members, to whom he related from what he was suffering, when that gentleman was visiting a patient in whose house this man was. He complained of pain and swelling behind the right knee. I saw sufficient to warrant my immediately placing him in bed. Upon examination, I discovered a large pulsating tumour occupying the whole popliteal space of the right side. Taking into consideration the size of the space and the projection of the tumour, it appeared to me to be as large as a child's head at birth. On the same side, just below Poupart's ligament, I found another tumour of a like character about as large as a good-sized walnut. There was no difficulty in diagnosing his case; the only difficulty was as to the means to be employed for his benefit. I now confess that I felt a very serious responsibility devolved upon me. Here was a man apparently in robust health, yet suffering from a disease liable at any moment to result in mischief, which, in a very short time, would end in death, demanding an operation of great danger to his life for his relief. I kept the man in bed, and allowed some days to elapse for the opinion of many of my friends, and I am deeply indebted to them for enabling me to come to a right conclusion as to the course I should adopt.

He appeared in every respect a very healthy man. His family history was exceedingly good. He himself had never been sick, but he suffered from syphilis eleven years ago. He stated that, for twelve years, he served in the Royal Marine Artillery as a private soldier, and left the service twelve months ago. A year before he was discharged, he suffered much when on duty with pain in his right leg, so much so that, to relieve himself, he had taken off his neckerchief and tied it round the calf of his leg. He had also a swelling of the foot, and had on many occasions fallen out of the ranks in consequence. He stated that he was afraid to mention the matter to the surgeon of his regiment, lest he should be sent to hospital, and thus have his pay stopped, which would have deprived his wife of bread; but, his twelve years' service having expired, he applied for and obtained his discharge. He then worked as a labourer. Five months before I saw him, when at his work, he felt something snap, and a swelling came behind his knee. He also felt, when he put his right hand into his trousers-pocket previously to this, that something was pulsating in his groin. After mature deliberation, it occurred to me and my friends in consultation that it would be as well to put on the tourniquet and compress the femoral artery, more especially as it appeared to us that nature had already attempted a cure of the popliteal aneurism by fibrinous deposit.

Compression of the artery was accordingly applied at the upper part of the middle of the thigh with great care; but, after forty-eight hours, it was discontinued, in consequence of great œdema taking place and apparently little or no benefit occurring. There were then two courses open to me; either to compress the vessel above Poupart's ligament, or to tie it. Had I had a staff of medical students to assist me, who would have understood the importance of the work they had to do, digital pressure would have, no doubt, been the best course to adopt, more especially as compression of the artery entirely stopped pulsation in both tumours; but, considering the means at my disposal in a workhouse hospital, I did not feel justified in trying it. The only course open to me, then, was the ligature, which I determined upon applying. The operation was performed on January 27th. An incision was made after the modified method of Abernethy, semilunar, and extending from the inner side of the middle of Poupart's ligament upwards and outwards, four inches long, to the inner side of the anterior superior spine of the ilium. The different parts were divided on a director, and the vessel exposed and tied with strong ligature of silk. During the operation, a number of vessels of more than ordinary size had to be tied or twisted. All pulsation in both tumours immediately ceased, and for ever.

The limb was carefully enveloped in cotton-wool, the patient's bed placed near the fire, and bags of hot sand, repeatedly changed day and night, kept on each side, a short distance from the leg and thigh. His diet was regulated, and his pulse and temperature carefully watched. I shall not trouble you with their variations.

Forty-eight hours after the operation, symptoms of gangrene appeared in the toes, and very slowly extended, until a line of demarcation was well formed at the upper part of the lower third of the leg. During all this time, extending to February 19th, twenty days after the operation, hardly any constitutional disturbance existed, and what did was easily subdued by appropriate treatment, when suddenly the pulse rose to 144 and the temperature 105.2. Under treatment, this was reduced in two days to temperature 103.2 and pulse 120. After a consultation with Dr. Cousins, it was considered that further delay was not desirable, and that amputation of the thigh was necessary. This operation was performed on February 19th, and by the 22nd his pulse was 100 and his temperature the same. On the 25th, the ligature from the external iliac came away, and the wound was quite healed twenty-eight days after the first operation. During the amputation, hæmorrhage was prevented by the strap of the tourniquet being tightened round the thigh; the femoral artery was found plugged, but was tied as a precaution; the stump healed kindly, and the man is now well.

I have brought the patient, that the members of the Society may see the inguinal aneurism; the popliteal aneurism is before you on the table. The gentlemen for whose assistance I am much indebted are Drs. Cousins and Axford, Messrs. Morley, Pike, and Madeley, and my colleague Mr. W. Mark Atkinson.

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* Read before the Southern Branch, April 14th, 1874.

The chief points of interest in this case appear to me to be—

1. *The Rarity.*—I have not been able to get at the statistics of such cases; but, considering that the external iliac has only been tied about a hundred and fifty times during the last twenty years, very few of those operations must have been for a double aneurism, but generally for aneurism of the femoral artery.

2. That a man, in so short a duration of time, should undergo two capital operations with no subsequent symptoms of danger to life.

Of course, you have observed, at every stage of the progress of the case, points of great interest, yet it appears to me that the two I have mentioned are the greatest. The number of dangers which surround a patient when a large artery is exposed and tied are very numerous; in this case, after the ligature, the femoral aneurism was consolidated, and the wound healed without a bad symptom; but, for the gangrene of the foot and subsequent amputation of the thigh, I have no doubt but that the cure of the popliteal aneurism would have been as perfect as that of the femoral is. The specimen on the table is not half the size that it was originally, which is proof that, in less than four weeks after the ligature of the external iliac, it was rapidly approaching a perfect cure. I think, without my taking up your time further to explain the reasons why I amputated above the knee, they will appear to you obvious.

TUBERCULAR MENINGITIS IN AN ADULT IDIOT: NO TUBERCLE FOUND IN LUNGS.

By OSCAR T. WOODS, M.B.Dublin.,
Senior Assistant Medical Officer, Warwick County Asylum.

Emma Dafforn, aged 16, a congenital idiot, was admitted September 3rd, 1870. She had little knowledge of time or place; said she was six months old; that her sister (aged 4), was 19. Her mother stated that for the past nine years she had gradually been becoming more vicious, and was now exceedingly troublesome, biting and beating the other inmates of the house. Of late she could not be taught to do anything, but in early childhood was not looked upon as very stupid. She went to school, learned her alphabet, and improved, but had at length to be taken away, as she beat the other children. If displeased, she tore her clothes. She could sew, but broke her needles when she fancied she had done enough. There was no consanguinity of parents. Her brother died of phthisis. She was a low-sized strumous-looking girl, with low forehead, bad cranial development, highly arched palate, and little facial expression. She said she was six months old; that she had five fingers altogether. She could count up to ten; did not know the days of the week.

While a patient in the asylum, she was always exceedingly emotional, jumping up at times while sitting quietly, and striking those about her without any cause; was occasionally ill-tempered and vicious. She attended school, and improved a good deal. The following note was made on March 16th, 1873. "Attends school, and is improving; works well with her needle; is an useful ward-helper. Health very good."

September 17th. She had been complaining for the last day or two of not feeling well. To-day, she was confined to bed, and complained of headache, lassitude, diarrhœa, and vomiting. The pulse was 120, and weak; and the countenance flushed and anxious.

September 20th. Vomiting and diarrhœa had now subsided. The patient lay in bed, not caring to speak. She complained of pain in the head at the least noise, but said she was better. She was much annoyed by the light, and ground her teeth when dozing, and frequently started up frightened. Pulse irregular, 60.

September 24th. The symptoms were very well marked. She was now drowsy, but, when questioned, brightened up, and expressed herself as better. The skin was hot, and the bowels constipated. She complained of great pain in the head. There were marked internal strabismus of both eyes, and twitching of the muscles of the upper eyelid. Pulse feeble, 80.

September 26th. Her rest was much disturbed; she started at the least noise, and was delirious at times, but, when collected, knew those about her. Her memory was much confused. There was a good deal of twitching of the muscles of the face, both sides being equally affected. Strabismus continued well marked. The pulse had to-day risen to 120.

September 28th. She had had two slight convulsive seizures, principally affecting the muscles on the left side of the face and left upper extremity. She could not be roused. Pulse 126, very feeble.

September 30th. Convulsive attacks were more frequent, but not more severe. The twitching of the muscles of the face was now continuous. She could not articulate, but kept muttering. She lay in a comatose state, passing her urine and fæces under her. The pulse could not be counted.

October 1st. She died at 1 A.M.

Necropsy, thirty-three hours after death.—The body was well nourished. Rigor mortis was present. The bones of the skull were thin and diaphanous. The dura mater was adherent to the calvaria along the longitudinal groove. The arachnoid, at the base and over the cerebellum, was opaque, thickened, and of a dirty green colour; there was some subarachnoidal effusion. A flaky deposit of lymph covered the circle of Willis and the pons. The pia mater lining the sides of the fissures of Sylvius was adherent, and studded with minute granular bodies. The course of the middle cerebral artery on the right side was marked by thickening of the arachnoid, and the vessel itself was surrounded by an effusion of yellow lymph. This condition was not present on the left side. The substance of the brain generally was somewhat softened; the grey matter of the convolution was very pale. The ventricles contained about an ounce of clear fluid. The velum interpositum and fornix were of pulpy, almost creamy consistence. On section of the corpus striatum and optic thalamus on the right side, six or seven tubercles, some as large as peas, were seen; they were hard, and slipped from under the knife. A pale flaky deposit covered the right optic thalamus. There were no tubercles on the left side. Two-and-a-half ounces of fluid escaped during the section and removal of the brain. The brain weighed 40 ounces. Both lungs were healthy and free from tubercle. The heart weighed 5½ ounces; the valves were competent. The peritoneum was free from tubercle. The other organs of the body were healthy.

Remarks.—The above case seems to me to be interesting, owing to the unfrequency of tubercular meningitis occurring at this age without tubercle in other organs, the well marked symptoms during life, and, lastly, the characteristic appearances found after death.

GONORRHŒA; ENDOMETRITIS; OOPHORITIS; OVARIAN NEURALGIA; LATERAL FLEXION.

By T. EDWARD WILLIAMS, M.R.C.S., Talgarth.

Early in February 1873, Dr. Holt, at that time acting as my *locum tenens*, was requested to visit E. D., aged 15, whom he found suffering from acute gonorrhœa. A fortnight later, on my return home from London, I found symptoms of endometritis and ovarian congestion added; and, shortly following, there was severe ovarian neuralgia, coming on early in a morning, and lasting six or eight hours. The pain was relieved by hypodermic injections of morphia, and the paroxysms gradually occurred later in a morning and with diminished severity. The acute gonorrhœal and inflammatory uterine and ovarian symptoms had, on April 18th, subsided; but the girl complained of great pain down the left leg, a sense of numbness in it, and inability to sit upright for any time. She was wretchedly thin, and there still was some yellow-coloured discharge. The parents, respectable people, refusing to allow me to make a vaginal examination, I threw up the case, and the girl went as an in-patient into the Brecon Infirmary.

July 8th. I was again begged to see the girl, as she had come out of the Infirmary, and had since become very ill. I acquiesced, provided I was allowed to treat the case my own way—a condition now readily acceded to by the parents, who were alarmed and almost hopeless about the state of their daughter. I found the patient in bed, worn and emaciated, suffering excruciating pain around the posterior aspect of the left ilium, extending down the left thigh and leg. There was almost complete inability to lift the left leg when walking, necessitating its being dragged after the right. She found it impossible to sit upright, and, when out of bed, was obliged to be, as she described it, "in her doubles". The bowels were constipated. The bladder was rather irritable. There was a copious vaginal discharge, though not nearly so yellow as when I last attended her. Her appetite was bad; her nights were restless. On examining the abdomen, there was complete dulness on percussion in the left iliac region, together with pain and tenderness. On examination *per vaginam*, the os uteri was found to be directed slightly towards the left of the median line; and to the left of the os, and continuous with it, was found an ovoid swelling.

I diagnosed latero-flexion; but, owing to my failure in attempting to introduce the sound, the excessive pain which manipulation gave the patient, her extremely exhausted condition, and the parents' objection to chloroform, I resolved to temporise and endeavour to improve her general condition. Accordingly, I ordered her continued complete rest in bed, cod-liver oil, syrup of iodide of iron, Liebig's extract of meat, and glycerine pads, with occasional morphia pessaries, and a liniment of aconite and belladonna to be rubbed over the painful parts. The discharge and pain lessened. There was diminished dulness in the left iliac region (but this fluctuated), and she had gained three pounds in weight. The inability to lift the leg in walking, considerable pain, and the "compulsory crouched" position when sitting, however, still remained.

On August 8th, with the parents' consent, the patient was put under chloroform by my assistant, Mr. Marshall, and I proceeded to make a thorough examination of the uterus. With my left finger in the rectum and a silver catheter in the bladder, I was enabled to accurately explore the intervening region. The uterus was absent from its normal site, and I most satisfactorily confirmed my previous diagnosis of latero-flexion. A vulsellum being introduced into the vagina, the os was seized, brought a little down, and made a fixed point. With my left finger in the rectum, pressure was made on the fundus upwards and to the right; and the laterally flexed uterine body was readily tilted into its proper position. The left iliac region was now resonant; and, when the effects of the chloroform passed away, the girl expressed herself as being more comfortable than she had been for months. I kept her in bed for five or six days. The uterus maintained its righted position; and, when allowed to rise, she, to her great surprise and delight, discovered that she could use her left leg as well as her right. The pain was gone, and she sat upright comfortably. From now, her recovery was complete, and she gained seven pounds in the ensuing fortnight. At the date when I write, she can walk or run with ease, has no pain, and the leucorrhœa has ceased; in fact, she describes herself, and looks, "perfectly well".

THE GAINS DERIVED FROM THE USE OF THE LARYNGOSCOPE.

By GEORGE JOHNSON, M.D., F.R.S.,

Professor of Medicine in King's College; Physician to King's College Hospital.

I AM collecting evidence, derived from pathological observation and from experiments, by which I hope to prove conclusively that the explanation which I have given of bilateral palsy of the larynx, the result of pressure on one pneumogastric and recurrent nerve, is the true one. Meanwhile, in reply to Mr. Thornton's suggestion that "the paralysis of the opposite vocal cord in the two cases was probably due to some condition entirely independent of the aneurisms which existed", I beg to say that both Dr. Bäumler and myself sought in vain for any anatomical conditions, apart from the aneurism, which might explain the palsy on the opposite side. As to the hypothesis of an "idiopathic disease of the muscle", I can only say that I know nothing of such a disease, and probably Mr. Thornton knows as little. "An affection of the crico-arytenoid articulation" is negatived by the fact that during life there was slight but equal movement of both vocal cords; and, after death, there was no anatomical evidence of a diseased articulation. "An enlarged cervical gland" there was; but, unfortunately for the hypothesis, it did not touch the right pneumogastric or the recurrent nerve. In making the *post mortem* examination, I had the able assistance of my colleagues Professor Curnow and Dr. Kelly, and it is not likely that we overlooked any obvious anatomical facts.

In the attempt to explain pathological phenomena, well observed facts must be accepted as fact, and mere assumptions cannot be allowed to take their place.

SURGICAL MEMORANDA.

SINGULAR FORMS OF FATTY TUMOUR.

FATTY tumours, when occurring in unexpected places, may sometimes give some little uncertainty in their diagnosis, being liable to be mistaken for cystic growths when not very tense, lobulated, or firm. A short time ago, a middle-aged woman showed me an elongated tumour situated on and occupying the entire dorsal aspect of the first phalanx of her thumb. It seemed decidedly fluctuating on first examination; but, on further manipulation, I was convinced that the mass was isolated, and probably fatty; and, on making an incision down upon it, and turning it out, was right in my conjecture.

To-day (June 29th), a woman came to me in the out-patient department of Charing Cross Hospital with a pedunculated growth about as large as an egg, attached by a stem about as thick as a large quill to just below the anterior superior spinous process of the ilium. This again was singularly fluctuating to the feel. I found, however, that I could readily push a certain something its pedicle contained into the general mass, and, dividing the neck, found it, as I suspected, to consist of pure fat.

EDWARD BELLAMY, F.R.C.S.

GENERAL MEDICAL COUNCIL OF EDUCATION AND REGISTRATION.

SESSION, 1874.

THE General Medical Council assembled for the first time in their new house on Thursday, the 9th instant. This house, situated at the Harewood Gate, Oxford Street, was formerly in the occupation of the College of Chemistry. As the result of protracted negociations with successive Governments, and by the aid of active exertion on the part of Dr. Quain, and the friendly action of Mr. Lowe, the Chancellor of Exchequer of the late Government, a building has been secured for the conduct of the business of the General Medical Council, and for the reception of its members assembled in full meeting, which is eminently suitable for the purpose, and in all respects worthy of the Council. The conversion of the building from its former use to its present service has involved extensive structural changes, which have been carried out at a cost of about £1,500 by the Government. Unavoidable delays have so retarded the work, that the Council will hold its meetings in a building which is still in the hands of the joiners and painters, and of which the bare plastered walls are not yet dry, or their decoration commenced. The adaptation and arrangement of the apartments seem to to have been very well considered; and the Council finds here convenient rooms for all its officers, a spacious and lofty meeting-room, with a large apartment for committee purposes. The rent is fixed at three hundred pounds — a nominal rent for a building of this size, and in a locality so convenient and so public. We may congratulate the Council upon having emerged from its obscure corner in Soho Square, and we trust that its proceedings will always bear the daylight.

The proceedings commenced with the usual opening address of the President, which is reported in the next column. The resignation which Dr. Paget tendered had been anticipated, as his decision had been made known beforehand. The delicate question of finding a successor is not yet definitely settled. Dr. Paget has been a calm, impartial, and courteous President, whose evident fairness has always been appreciated. His resignation has been accepted with regret. He has been re-elected; but will only continue to act throughout the present session, and until his successor has been appointed. It is more than probable that Mr. Cæsar Hawkins will fill the Chair—a position for which his calm and courteous character, not less than his age and professional antecedents, have more than once indicated him as a suitable incumbent. Mr. Hawkins is always dignified, and will know how to conduct the rather intricate business of the Council after the most approved and judicial models. A better selection it would hardly be possible to make.

Thursday, July 9th.

DR. PAGET, the President, took the Chair at 2 P.M.

New Members of Council.—The following new members were introduced and took their seats: Dr. Rutherford Haldane, representative of the Royal College of Physicians of Edinburgh, in the room of Dr. Alexander Wood; Professor Turner, representative of the Universities of Edinburgh and Aberdeen, in the room of Dr. Macrobin; Dr. Rawdon Macnamara, representative of the Royal College of Surgeons of Ireland, in the room of Mr. Hargrave; and Dr. Warburton Begbie, Crown representative for Scotland, in the room of Sir Robert Christison, Bart.

President's Introductory Speech.—The President addressed the meeting as follows.

GENTLEMEN,—I may be allowed to congratulate you upon your new abode, and I trust that the Council at large will be satisfied with the way in which the Executive Committee has carried out the instructions to obtain premises wherein the meetings of the Council may be held, and the general business carried on, with comfort and convenience. That was the object of the proposal and resolution of the Council, on the motion of Dr. Stokes, in the year 1873. The result which you see has cost not only much time, but some trouble. A report on the subject will immediately be laid before you by the Executive Committee, and if any further information be desired, it will gladly be given by the

Treasurers or myself. I have thought it advisable that such parts of my correspondence with the late Government as have not already appeared in the minutes of the Executive Committee should be arranged and placed in the office, so that all that has passed with regard to this house can at any time be readily referred to. The terms on which the Council will hold the house are not so favourable as we had been led to expect. But, if any member of the Council thinks that the Executive Committee might have done better, I will beg him to consider all the circumstances of the case, to look at the answer of the then Government to the application of the Council in 1858, and to remember the actual pressing necessity for providing a local habitation for the Council before we should lose the power of retaining even our insufficient accommodation in Soho Square. The letter from the late Government offering this house to the Council was dated the very day of their resignation of office. To one part of this letter I may refer with some gratification—that in which the Lords of the Treasury expressly recognise the claims of the Council to a certain measure of public assistance. These were the grounds on which the application to Mr. Lowe for apartments rent free was made and urged. The claim was expressly disallowed in 1858. I am glad that now it has been, however partially, admitted. It is not quite reasonable or fair that the costs of the work done by the Council should be wholly defrayed out of the registration fees paid by men entering our profession. The persons benefited by this work are not members of our profession alone, or chiefly, but in a much higher degree the general public. For the chief purpose and end of our work is to prevent the intrusion into the profession of persons in whose hands the health and lives of the public could not be safely trusted. I believe, indeed I have no doubt, that to Mr. Lowe we are mainly indebted for the favourable terms on which this house was offered to us. If less favourable than we had reason to expect, they are yet not undeserving acknowledgment. From the present Government we have received prompt courtesy. An application to the Treasury for a reasonable concession in regard to the lease was answered by return of post, and the answer was favourable. To the officials of the Office of Works, we are under great obligations for their readiness in receiving suggestions for the requisite alterations in the building and for the skill and activity with which these have been carried out. The building was a mere shell, wholly unfit for our needs. You will see what it now is, and can judge what it will be when all that is intended shall have been quite completed. We are, therefore, very greatly indebted to the good will and zeal and ability of the Office of Works; for all that they have done has been done, as it were, "against time", in a very short period. And we are certainly not less indebted to our treasurers, and particularly to Dr. Quain, who, as many of you know, has been from first to last the chief moving spirit in this business. But for him we could not possibly have met here to-day. But for the unsparing devotion of his valuable time to our service—his time by night as well as day—we might now in this broiling weather have been cooped up in the corner of Soho Square. We owe also not a little to his thoughtfulness and his taste. But all this is well known to others as well as myself, who are better able than I am to express adequately our thanks.

In opening the session in this spacious hall, I have only one regret—that all those who sat with us in the Council last year are not here today. Four of them are absent: Sir Robert Christison, whose words added weight to any debate, whose name has for so many years been known and held in respect wherever medicine is studied, representing, as he does in the highest degree, all that for which his University has long been famous; Dr. Alexander Wood, who, like Sir Robert Christison, was from the first a member of the Council, and whose great capacity for business and equal, or even greater, gifts of oratory must have made him a marked man in any position in which he might have been placed; Dr. Macrobin, who was kindly, candid, honest, and able. I think it one of the many happy incidents of my connection with the Council that it gave me his acquaintance and, I hope, his friendship. And we miss, too, the genial smile of our friend Mr. Hargrave. But our new colleagues must not think themselves less welcome, because we do not forget their predecessors. We see in their presence that, however great may have been any one of our losses, it is not too great to be replaced.

Since the last meeting of the General Council, the examinations of some of the medical authorities have been visited and reported on. It would be superfluous for me to say much on these reports. They tell their own tales, and tell them with such manifest ability as to require no commendation of mine; and they do more than convey information respecting particular institutions; they raise some questions of a general kind, the discussion of which cannot fail to be serviceable to that which is our great object—the advancement of medical education, and of the standard of acquirements in our profession. But, though I say no more than this of the reports themselves, I may be expected to make some mention of the arrangements of the Executive Committee for carrying out the visitations. In the selection of visitors, regard was had to prior experience as examiners. Their number was purposely limited, so as to allow some visitor inquiring into the examinations of more than one licensing body, and thus helping to guide us towards an equivalence of standards in parallel cases. I am sure the Council will think the Executive Committee fortunate in having obtained the services of men so eminently qualified, and whose statements and opinions are entitled to so much respect. By two gentlemen only were the invitations declined—by Dr. John Ogle and Mr. Teale of Leeds—and in both cases with expressions of regret at their inability. We lost the valued services of Mr. Holmes, on his appointment to the Board of Examiners of the College of Surgeons of England. His nice sense of propriety perceived an incompatibility in the two offices. In all cases where practicable, a physician and a surgeon were associated in the visitation. No notice was given beforehand to the body about to be visited; the intention to visit was, I believe, in all cases kept secret. The reports have not been subjected to any revision by the Executive Committee. In no case has even a single word been altered after the reports have been sent in. As to any instructions beforehand, none were given, except such as were needed in the case of such visitors. They were no more than that the reports should be thorough and unfettered—just what the visitors might observe and think for themselves.

Another work has been done since our last meeting, in the compiling and publication of the additions to the *Pharmacopœia*. A report of the Pharmacopœia Committee will bring this under your consideration, and will, I doubt not, meet your approval.

Only a few words more—my last words, I may call them—and pray, under the circumstances, forgive their egotism. Five years ago, the Council did me the honour of electing me their President. This very day is the anniversary of my election; for I was elected on July 9th, 1869, at 6 P.M. or thereabouts. In a very few hours, therefore, my period of office will be at an end. The honour bestowed on me five years ago was the highest I ever received—the highest I should ever wish to receive. I am very conscious how small a return I have made for this distinction, but I have endeavoured to make such a return as you would most approve of, for I have tried to discharge my duties to the best of my ability. All honours have their responsibilities, and mine have been no exception. As President, I have been more responsible than any other member for the efficient discharge of the duties of the Council. And our joint responsibilities are not slight, for they are of the same kind and manifold more weighty than the everyday responsibilities of our profession. Like them, but in a larger sense, they are responsibilities to be measured by men's lives and men's sufferings. To raise and maintain a high standard of acquirements in those who enter our profession is our main duty here; to neglect this duty would be to let men die whose lives might be saved—to let men suffer whose health might be restored. But in all responsibilities or difficulties, and amidst the many shortcomings of which I am sensible, I have always been sure of the support of the Council. Their kindness has never once failed me. During the entire five years of my office, there has not been one single instance in which I have been treated otherwise than with the utmost kindness and consideration by all the members of the Council, collectively and individually. I wish I could adequately express my gratitude.

Happily, our responsibilities are limited by the extent of our powers, and by the proportion that our powers have borne to the largeness and difficulties of our task. The powers given to the Council by the Medical Act are but slender. Its main task—that of elevating medical education—is a large one. All great educational improvements are great tasks; and though ours have been in one sense limited, being confined to one profession only, in another sense it is very large, for its extent is the area of the whole United Kingdom. This is, indeed, a fact of which the Medical Council may well be proud. Our Council is, as far as I know, the only body, except the Houses of Parliament, of which both the constitution and functions are truly imperial—the only body in which English, Scotch, and Irish representative men meet together to consult upon and devise measures that shall be common to all three divisions of the Kingdom. In this, the Medical Council sets an example that may well be envied, and might with advantage be imitated. But in this, which may well be our boast, is also, it must be admitted, one of our difficulties. The improvements, to be effectual for their purpose, must proceed *pari passu* throughout the whole United Kingdom. And another impediment to rapid progress is that our members, English, Scotch, and Irish, are, and I would say must be, or ought to be, for the most part, practitioners of medicine—men, therefore, busy at home, and meeting, perhaps, only when assembled together in our annual session, bringing, therefore, greater diversities of opinion than might perhaps be found if their intercouse were more frequent. But, notwithstanding these obvious difficulties, though time is found by experience to be a great and necessary element in all great educational improvements—though we have not hitherto succeeded in simplifying our work by reducing the number of the nineteen separate sets of examinations, yet our success has not been discouraging when compared with our powers. It may be, and doubtless is, difficult to estimate the progress that has been made; but, at all events, we know that a few years ago a man could enter into our profession without producing any evidence whatever of general education. Now, a preliminary education is enforced on all, and the proofs of this are given in almost all cases prior to the commencement of medical studies. The future influence of this on the social status of our profession can scarcely be overrated. We know that a few years ago only three or four of the licensing bodies made clinical examinations a part of their tests of fitness for a diploma. This test was even spoken of as objectionable. Now all the bodies insist on it. We know that a few years ago, in the examinations for medical commissions in the Army and Navy, it was not uncommon to find about forty per cent. of the candidates ignorant and incapable, though already in possession of diplomas both in medicine and surgery. Of late, these discreditable failures have become so few as to be almost, if not quite, insignificant. I am happy to say that, on the very last occasion of examinations for army medical commissions, that of March 1874, which will be laid before you to-day, there was not one of these failures. And, surely, the like signs of improvement are equally manifest throughout our profession. Teachers tell us so. Laymen have no doubt of it. Certainly my experience is so. I know not a few young village practitioners whose acquirements might have placed them, a few years ago, in the foremost rank of practitioners in large towns. I do not claim for the Medical Council all the credit of these improvements. Something is due to the admirable spirit for doing better and better which pervades our profession, and is kept alive by the medical journals. Some share of the credit may also fairly be given to the licensing bodies. All of them have improved their examinations, and some of them have set an admirable example, and seconded this Council with a most praiseworthy public spirit. May I venture to add, to what I have already said, that the limitation of our powers both in education and, still more, in other matters relating to our profession—our difficulties and degree of success actually attained by us—have become better known to the profession at large than they were some five years ago. It is now more clearly seen that the Council has not the same freedom of action as a voluntary association; that it cannot take part in all matters that concern the profession; that many such matters, however interesting and important to the profession, are altogether beyond or beside the functions of the Medical Council, as defined by Act of Parliament, and that the Council is less obnoxious to blame than was formerly supposed, for want of energy in dealing with the licensing bodies. Have we, then, in that which is our chiefest duty—the providing for the public the best possible medical advice—have we yet attained that happy standard of excellence at which we may "rest and be thankful"? I am very far from thinking this. I am far from thinking that the actual state of things is satisfactory. Nothing, indeed, is satisfactory which admits further improvement. That there is room for further improvement is not doubtful. But enough has been effected to encourage the Council in doing more. It is true that the powers given to it by the Medical Act are slender, but it has an influence far more ready and sure in its operation than the statutable coercive power which could be exercised only through an appeal to the Privy Council, and which would probably fail, except in case of very plain dereliction of duty on the part of the offending body. The chief power of the Council, as I believe, is that which it gave itself when, on the motion of our friend Dr. Andrew Wood, the Council determined that its debates should be public. The agency of the Press, giving publicity to our debates and proceedings, has, I believe, more than doubled the power of the Council—doubled its power for anything that is right and reasonable, and more than doubled its influence with the licensing bodies in any question in which this Council may be in the right and they in the wrong. I have, therefore, no fear as to the future of the Medical Council. It has before it a great course of usefulness which I am sure will be followed with success. Its main purpose is of the highest national importance.

How this may best be effected will be for you to decide, and is not for me to indicate. It would be unbecoming for me to talk of what should be the work of the Council in the coming time, when I shall no longer be a member of it. I shall look on, from a distance indeed, but with unceasing interest, and with the respect which I have long learned to feel for the Medical Council. (*Applause.*) I will now resign my chair, and leave you to choose my successor.

Dr. Paget shortly afterwards withdrew from the room.

The Chair was taken by Dr. STOKES.

Dr. ANDREW WOOD proposed, and Dr. AQUILLA SMITH seconded, a vote of thanks to Dr. Paget for his great services as President of the Council. This was unanimously carried.

Dr. WOOD moved, Dr. APJOHN seconded, and it was unanimously resolved, that Dr. Paget be re-elected President.

The *Business and Finance* Committees were appointed.

Report on the New Offices.—The following report of the Executive Committee as to the new offices of the Council was read, and ordered to be entered on the minutes.

In pursuance of the Resolution of the General Medical Council of March 5th, 1872, the Executive Committee have been in communication with the Government, as the Council are aware, for many months. After protracted negotiations they have at last succeeded in obtaining the premises in which the Council are summoned to meet; well known as formerly the Royal College of Chemistry. The terms on which the house has been granted have been made known to Members of the Council by the Minutes of the Executive Committee of February 23rd, 1874, to March 27th, 1874. They are, shortly stated, a lease of 31¼ years, at a yearly rent of £300, the Government undertaking to expend £1,500 in adapting the building to the wants of the Council, and reserving a right of terminating the lease at the end of seven, fourteen, or twenty-one years. It is estimated that the total annual expenses of the house, including the care of it, the rates, and all other charges, will not be less than £460. This should be borne in due proportions by the General Medical Council and the English Branch Council. The latter Council resolved, April 2nd, 1874, that they will be prepared to contribute for their accommodation in the same proportion as they have hitherto done in Soho Square. This offer of the English Branch Council is very advantageous to the General Council, and the Executive Committee therefore recommend the Council to accept it. If this arrangement be adopted, the annual expense chargeable to the General Council may be estimated at one-third of £460, *i.e.*, £153:6:8, which will have to be defrayed out of the percentage rate, and will therefore fall on the several Branch Councils in proportions, which will vary a little from year to year.

Taking the percentage rate as it has been on the average of the last three years, the incidence of the expense of the house on the Branch Councils may be estimated as follows:

The English Branch will pay—		
Two-thirds of £460	£306 13 4	
Rateable proportion of £153:6:8 ...	106 8 5	
		£413 1 9
The Scotch Branch will pay		21 16 0
The Irish Branch will pay		25 2 3
		£460 0 0

A considerable sum must also be expended in paying for the requisite furniture and fittings. The amount cannot be exactly estimated at present, but it is thought that it will not much exceed £500. The Executive Committee regret that, notwithstanding the strenuous exertions of the Office of Works, the building is still in a somewhat unfinished state.

Sir WILLIAM GULL moved, and Dr. SHARPEY seconded, a vote of thanks to Dr. Quain for the great zeal and ability with which he had carried out the negotiations. The motion was unanimously carried, and was acknowledged by Dr. QUAIN.

Dr. RISDON BENNETT expressed the opinion that the Council were under obligation to the members of the Office of Works who had been engaged in connection with the new offices.

Dr. STORRAR moved, Dr. PYLE seconded, and it was resolved, that the Council approve of the portion of the Report referring to the apportionment of the expenses.

The Re-election of Dr. Paget.—Dr. PAGET, who had been absent from the room, returned and resumed the chair. He said that, after what he had already said, he was sure the members would not mistake him when he announced that he could only hold office during the present session.

Visitation of Examinations.—The reports of the Visitors of Examinations were presented; and, after some debate, it was resolved that their consideration, in Committee of the whole Council, be the first business on Friday.

The Report of the Adulteration Committee.—Dr. ACLAND moved, Dr. APJOHN seconded, and it was resolved, that a Committee be appointed to consider the bearings of the Report of the Adulteration Committee of the House of Commons on the Qualifications in State Medicine or in Public Health instituted by any of the Bodies in Schedule A of the Medical Act.

Some other business having been disposed of, the meeting adjourned.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 37, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 11TH, 1874.

RABIES.

THE cases of rabies that have occurred in the provinces and the metropolis, during the last twelve months, though absolutely small in number are comparatively of extraordinary frequency and grave importance. No doubt, more than half the reputed cases are innocent enough, and much unnecessary alarm has existed. Still, when we know that over a dozen English counties have suffered outbreaks, and that at least fourteen well authenticated cases have been seen by veterinary surgeons in London, we are forced to the conclusion that the disease is unusually prevalent, and calls for some rational preventive measures.

Rabies is, undoubtedly, a purely contagious disease. It is always present on the Continent; but our insular position defends us from its introduction, save by the exceptional occurrence of an animal imported during the period of incubation. To this rare chance of infection we shall always be subject; we cannot guard against these solitary cases, but we may limit the outbreak to the one animal infected.

The spread of the disease is practically due solely to the bite inflicted by a rabid animal. Unfortunately, rabid dogs have a tendency to escape from home and roam about the country. During their wanderings they attack and bite other animals, seldom stopping for a systematic fight, but sullenly biting and passing on. In this way the disease is spread very insidiously—animals being inoculated without the knowledge of their owners, and often sustaining little or no apparent injury. The spread of rabies by direct inoculation is facilitated by the number of ownerless dogs in the district, which, when bitten by the infected wanderer, develope the symptoms unnoticed, and spread it amongst their kind. Its distribution is not affected in the slightest by the season of the year, or by the age, sex, or condition of the dog. In many hot countries the disease is unknown; it prevails most extensively in the temperate zone. Carefully compiled statistics, collected from the register of cases at continental veterinary schools, show that the disease is most frequent during the colder months of the year. These facts are sufficient to demonstrate how groundless is the dread of the dog days, and how absurd are the restrictions thought necessary during that period. Whatever regulations are desirable in July are desirable in December, and not more so. The history and geographical distribution of the disease also shows that its spread is due entirely to contagion. It has been recognised as far back as the annals of medicine extend, and its spread has been from east to west in the track of civilisation. In other words, it has been carried by contagion to countries previously free from it.

Our preventive measures, then, must be directed to the detection of all cases in the earliest stages, and to their immediate destruction; to the extirpation of all ownerless dogs, and to the recognition of all others found at large. The importance of our first indication depends upon the fact that nearly every case of rabies is ushered in by marked premonitory signs, during which period the dog is comparatively harmless, and may easily be secured until the development of diagnostic symptoms warrants its destruction. Secured in this stage, the dog is powerless for evil, and the disease cannot be spread. For the attainment of this end, it is only necessary that all owners of dogs should know the premonitory signs; and this can be effected by having them printed on the back of every dog-license, and by looking more sharply after those persons who omit to take out their licenses.

The destruction of ownerless dogs is no less a humane than a sanitary measure. These pariahs are half-starved, shamefully abused, a nuisance, and a danger. Not only when rabies is prevalent, but at all times, should they be provided for. Their condition being unnoticed, or only detected when too late to avert mischief, they may spread disease far and wide. Prudence and humanity both suggest their extirpation.

The recognition of dogs found at large is important, as enabling us to trace the owner, and hold him responsible for any damage due to his carelessness. It may be effected by requiring all dogs, off their own premises, to wear a collar engraved with the name and address of the owner. A dog at large, without a collar, would then be assumed to be wanting an owner, or to have escaped from home, and either condition would warrant his arrest by the police.

These three conditions thoroughly carried out are, we believe, sufficient to prevent the spread of rabies in this country; but, as by individual ignorance or neglect, a rabid dog might escape and inoculate other animals, owners should be required to report to the police the existence of rabies on their premises, and the district should be declared infected, so as to warn the public to notice the behaviour of their dogs. These regulations should not be local and permissive, but general and compulsory.

Existing legislation is not only ineffectual to stamp out rabies, but permits the enforcing of cruel and useless measures. Compulsory confinement and muzzling are the weapons provided by the Dog Act to combat rabies. They are both objectionable and useless. Confinement is almost certain in many dogs to produce skin-disease, and it predisposes young dogs to convulsive and rheumatic attacks. It would help to check the spread of rabies if every dog were not only confined but secured. This is simply impossible; and, therefore, we object to harassing legislation, which offers nothing more than can be obtained by simpler means. Confinement, as ordinarily understood and carried out, would prevent no rabid dog from escaping if the premonitory symptoms were overlooked. Our present rules seem formed on the impression that dogs go suddenly mad. This is a delusion. With a rare exception, rabies is introduced by premonitory signs—changes of habits and temper—extending at least over twenty-four hours. This is the time to act, and it affords sufficient warning to any person keeping a dog, if he only knows the significance of the signs. These signs only suggest that *probably* rabies is developing, and that the dog should be secured for three, or at most four, days for observation.

As to muzzling, we consider it simply useless. It may be made cruel to the dog by keeping his mouth tightly closed, or it may fulfil the letter of the law, and allow the animal to bite. If we could enforce the use of muzzles indoors and out of doors, and could be sure that every muzzle was secure, we might expect that rabid dogs would by it be prevented from mischief. Unfortunately, rabid dogs escape quietly from home, when their owners do not detect the first symptoms, and thus few of them are likely to be found muzzled. An order that all dogs shall be muzzled in the streets has one good effect, viz., that the appearance of a dog without a muzzle is evidence that he has escaped from home, and this, during an epidemic of rabies, is a suspicious circumstance. This indirect good can, however, be obtained by the simpler order that all dogs should wear a collar.

We do not blame local authorities for enforcing the existing law, if public opinion demand it, but we hope the public mind will soon be disabused of the erroneous opinions commonly held concerning rabies and hydrophobia. We trust, also, that when the Contagious Diseases (Animals) Act is amended, this disease will be included in its provisions.

THE ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

MR. BAKER'S election to the Council of the Royal College of Surgeons affords matter for congratulation. In Mr. Baker and Mr. Southam, the provincial schools are well represented; and at this juncture it is a matter of great concern that the managers of these schools should be in intimate relation with the great examining bodies. The disastrous results of recent examinations have shown that there is a want of accord between teachers and examiners; and that, whether the fault be on the one side or on the other, the pupils of medical schools in the metropolis and in the provinces do not get the amount and kind of knowledge which the examiners judge to be necessary. Such pass and pluck lists as we have recently published and discussed must needs excite a good deal of anxiety in the school-councils, as well as in the councils of the examining bodies; and it is well that provincial schools should have representatives intimately acquainted with their working at the Council-board in Lincoln's Inn Fields. Very desperate efforts were made to use, for the purpose of securing a victory for another candidate, an organisation which turned the fate of the elections last year. Its failure may, it is hoped, be a good omen for the future; but it is by no means improbable that the same tactics, which have made the recent College elections a byeword, will be renewed in future years with increased vigour, until the evil is reflected in so visible a deterioration in the quality of the candidates, and so great a loss of *prestige* in the Council, that it will be sufficiently great to cure itself. On this occasion, it was curious to see a journal which had made it the boast of past years, on whose fame it feeds, that its founder had identified himself with the members and fought successfully for their privileges, deny professional existence to the members, and contend that seniority in the College dates only from the date of fellowship. So great a perversion of right and common sense can hardly be explained on any justifiable hypothesis. Whatever may have been the influences which led to the propagation of a doctrine so odious to justice and so insulting to the great body of practitioners, they were probably related to the feeling which led the same writer to preach opposition to Mr. Baker because he was a member, and had been President, of the British Medical Association—forgetful of the fact that it is hardly practicable to have any member of the Council of the College, or any possible candidate for that position, who is not a member; and, if it be a right to be a member, it can hardly be an offence to be one of the most honoured members of the Association. The particular offence alleged, however, was that Mr. Baker was a member of Committee of Council; and it is a curious coincidence, that it is alleged that the writer of the paragraph under discussion was himself for a short term a member of Committee of Council, and in that office greatly distinguished himself by a discovery as to the "greater circulation" of the journal in which he writes, which he was subsequently unable to substantiate, but had not the candour to retract.

Dr. Charles Grabham has been appointed Coroner to the Honour of Pontefract by the Chancellor of the Duchy of Lancaster.

Mr. Thomas Banting has left £20,000 for building a convalescent home at Worthing, to be called the Banting Memorial.

We are requested to announce that the Library of the Medical Society of London will be closed until the 31st instant.

The Royal National Hospital for Consumption at Ventnor has just received £300 by order of the Court of Chancery, under the provisions of the will of the late Miss Mary Gray Ratray.

At the competitive examination for the prizes in botany, given by the Society of Apothecaries to medical students, the gold medal has been awarded to William Andrew Shoolbred of St. Bartholomew's Hospital; and the silver medal and books to Francis Goodchild of St. George's Hospital.

At the Royal College of Physicians of London, last week, a *conversazione* was given, which we accidentally omitted to chronicle. It was largely attended by Fellows and Members, and by distinguished visitors; and many objects of interest were shown.

DR. HUGHES BENNETT.

We are informed on the best authority that Dr. Hughes Bennett, finding that the state of his health will not permit him to anticipate wintering in Scotland, has resigned the Chair of Physiology in the University of Edinburgh, which he has long filled with the highest distinction and usefulness. The candidates for the succession most spoken of are Dr. Rutherford of King's College, Dr. Bell Pettigrew, and Dr. McKendrick. The high claims of all these candidates are well known, and the competition will be sharp. The principles of selection to this important Chair concern physiologists at large, and indeed the whole profession; and we may possibly soon say more on this subject.

MEDICINE AND ART.

In addition to the works in the present Royal Academy Exhibition which were mentioned in the number of the Journal for May 2nd as being associated with our profession, we find works contributed by Mr. J. Lumsden Propert and Dr. Evershed. The former sends an etching which is free and spirited. The latter exhibits an etching, a frame of four dry points, all of which indicate a feeling for landscape; and a small oil painting of a cottage interior, called "Solitary Old Age"; this is very carefully painted throughout. The same gentlemen have also contributed to the Black and White Exhibition, Egyptian Hall. Dr. Evershed has sent several etchings and dry points, all of which show careful study from Nature. Mr. Lumsden Propert is represented by an etching on the Thames, which possesses some of the best qualities of that art.

THE REPORT OF THE ADULTERATION COMMITTEE.

The Select Committee of the House of Commons on Adulteration have reported briefly and innocuously. They propose the consolidation of the existing Acts, the establishment of test-examinations for analysts, and of a laboratory of appeal. They suggest a certain measure of leniency towards "mixed mustard" sold as such, and fairly faced tea. Of the first measure we approve; of the second we emphatically disapprove. They suggest also, very absurdly, a standard of 10 per cent. of solids for milk, which is quite 1½ per cent. too low. Altogether, the report may be appropriately designated as a milk-and-water report.

SUBCUTANEOUS SURGERY.

On Wednesday last, at the Great Northern Hospital, Mr. William Adams performed for the fifth time his operation of subcutaneous division of the neck of the thigh-bone. The patient, a girl, aged 18, began to suffer from disease of the right hip-joint when she was eight years of age; for the last eight years, her right thigh had been permanently deformed, flexed, and adducted, so that the knee rested over the centre of the left thigh. She formerly walked with two crutches, but had lately used only one. She had never worn a high-heeled boot of any kind, and the toes of the right foot, when she stood up, were about six inches from the ground. Thus the leg was perfectly useless, and was atrophied. The patient having been placed under chloroform, a sharp pointed scalpel was inserted from above the trochanter and passed across the front of the neck of the femur. A fine saw was then introduced at the same aperture, and the bone was divided in a little more than four minutes. Richardson's styptic colloid on cotton-wool, carbolic oil dressing, and pads of lint were at once applied. The tendons of the tensor vaginæ femoris, adductor longus, and rectus femoris were then divided subcutaneously, and the whole limb was finally fixed to a long straight outside splint. The limb, which before the operation had been flexed at a right angle to the pelvis, was after the operation placed in a state of complete extension. This was the first case operated upon by Mr. Adams in which the union was not bony, but the movement at the joint was so slight that no other mode of procuring relief seemed to offer much chance of success. The operation has now been often practised in the provinces and in America; Mr. Bryant has performed it twice at Guy's Hospital, and Mr. Maunder once at the London Hospital. These three cases and Mr. Adams' previous four cases have all healed without suppuration.

LIBEL: £1,000 DAMAGES.

THE case of Bowles *v.* Hart, tried last week in the Court of Exchequer, before the Lord Chief Baron, possesses many points of public interest; and we should have gladly given a detailed account of the speeches, the evidence, and the summing up, had a larger space been at our disposal. The plaintiff, Dr. Bowles, is an eminent member of the medical profession, who has enjoyed an extensive and lucrative practice at Folkestone for upwards of eighteen years, and has at various times complained of the quality of the water supplied to the town. Mr. Richard Hart, the defendant, is a solicitor, likewise practising in Folkestone, and he is a large shareholder in, and secretary to, the Folkestone Water Company; in defending the character of the water he charged Dr. Bowles with slander and falsehood. In the course of his summing up, the learned judge informed the jury that "undoubtedly, in point of law, the water-supply of a town like Folkestone, or of any town, was a matter of public interest, and every inhabitant of that town, or any one having the slightest interest in the quality and nature of the water supplied, had a clear right by the law of England, publicly as well as privately, in the newspapers or in ordinary conversation, to express his own opinions, and discuss the question with perfect and absolute freedom, and even to resort to the strongest language in which he could express these opinions, provided always that he abstained from saying or publishing anything to reflect upon the private character or personal conduct of any individual concerned. It would be a grievous thing for the people of this country if, upon such a question as the supply of water to a town, there was any restraint upon that liberty which the law in this free country secured to every man within its limits". Dr. Bowles's criticism of the water were corroborated by reports written by the late Dr. Bence Jones and by Dr. Frankland, and not entirely contradicted by reports of Dr. Letheby, who gave evidence respecting the quality of the water on behalf of the defendant. The jury found for the plaintiff on all the counts, with damages of £1,000. Medical men generally will commend Dr. Bowles for the gallant fight he has waged concerning the Folkestone water, and will congratulate him upon the success with which he has repelled the unjust imputations made by the defendant upon his veracity in the matter.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following is, we believe, a pretty correct analysis of the voting for election into the Council of the College on the 2nd instant.

Messrs.	Hilton, Marshall, and Baker ...	37	voting papers.
,,	Hilton, Marshall, and Smith ...	22	,,
,,	Marshall, Smith, and Baker ...	18	,,
,,	Hilton, Marshall, and Hussey ...	13	,,
,,	Marshall, Hussey, and Smith ...	13	,,
,,	Marshall, Hussey, and Baker ...	6	,,
,,	Hussey, Smith, and Baker ...	5	,,
,,	Hilton, Smith, and Baker ...	3	,,
,,	Hilton, Hussey, and Smith ...	2	,,
,,	Hilton, Hussey, and Baker ...	2	,,
,,	Hilton and Marshall ...	8	,,
,,	Marshall and Smith	8	,,
,,	Marshall and Baker	8	,,
,,	Hussey and Baker	6	,,
,,	Marshall and Hussey ...	5	,,
,,	Hilton and Baker	4	,,
,,	Hilton and Hussey	2	,,
,,	Hilton and Smith	2	,,
,,	Smith and Baker	1	,,

ALLEGED ANTICIPATION OF DEATH.

PUBLIC reference was recently made, at an inquest held by Dr. Lankester, in St. Pancras, touching the death of Emily Lucy Prince, aged five years. According to the report, this little girl was the daughter of a blind man living in Draper's Place, Burton Crescent, and was taken ill. The next morning she was worse, and a doctor was sent for, who, on arriving at the house, pronounced her to be dead. She was accordingly removed to the mortuary, and, on the same evening, a *post mortem* examination of the body was about to be made, when "a thrill" was felt in the pulse, and it was found that the heart had not ceased to beat. Under these circumstances, the *post mortem* examination was wisely postponed until the following day, and the body of the child was placed in a warm bath. Life, however, either was or soon became extinct, for again she was pronounced to be dead, and the postponed *post mortem* examination showed that death had occurred from an effusion of serum into the pericardium of the heart. The jury returned a verdict in accordance with the medical evidence, and here ended the case. We have made some inquiry into this case. It is precisely one of those which affect great impressible imaginations, and to some people cause a great deal of unnecessary apprehension. Like most, if not all such cases, it does not bear investigation. It seems clear that the child was dead, and the ceremony of putting the corpse in a warm bath was unnecessary and foolish.

THE LATE DR. CHARLTON.

THE Committee of the Newcastle-on-Tyne Infirmary have passed the following resolution:

> "The House Committee desires to record its deep sense of the loss which the Infirmary has sustained by the death, on the 14th ultimo (May), of Edward Charlton, Esq., M.D., Senior Physician to the Infirmary, and Chairman of its Medical Board. The eminent abilities of Dr. Charlton, his skilful and kind treatment of the patients, and his uniform courtesy to his medical brethren and to this Committee and others during his long connection (twenty-one years) with the Infirmary, had won for him the respect of all connected with the Institution. This Committee deeply sympathise with Mrs. Charlton, and desires a copy of this minute to be transmitted to her."

STATISTICAL SOCIETY.

AT the fortieth anniversary meeting of the Society held on Tuesday, June 30th, the following Fellows were elected as President, Council, and Officers, for the year ensuing:—*President:* W. A. Guy, M.B., F.R.S. *Council:* The Right Hon. the Earl of Airlie, K.T.; Sir J. Anderson, F.R.G.S.; General Sir G. Balfour, M.P.; H. G. Bohn, F.R.A.S., F.L.S.; T. Brassey, M.P.; S. Brown, F.I.A.; E. Chadwick, C.B.; A. Chubb, B.A.; Hyde Clarke, D.C.L.; L. H. Courtney; F. Galton, F.R.S.; R. Giffen; F. H. Janson, F.L.S.; Henry Jeula, F.R.G.S.; James T. Hammick; F. Hendriks; J. Heywood, M.A., F.R.S.; F. Jourdan; H. R. Lack; Professor Leone Levi; W. G. Lumley, Q.C., LL.M.; R. B. Martin, M.A.; F. J. Mouat, M.D.; R. H. Paterson; F. Purdy; E. Seyd; T. Sopwith, M.A., F.R.S.; The Right Hon. the Earl Stanhope, F.R.S.; General R. Strachey, R.E., F.R.S.; William Tayler. *Treasurer:* J. T. Hammick, *Secretaries:* F. J. Mouat, M.D.; R. Giffen; H. R. Lack. *Foreign Secretary:* F. J. Mouat, M.D.

NEWCASTLE-UPON-TYNE BOROUGH LUNATIC ASYLUM.

WE have received the ninth Annual Report of this small asylum. Mr. Wickham, the Superintendent, in commenting upon the case of E. T., a female patient of homicidal propensities, for which she was secluded, and upon another suicidal patient who wore a strait-jacket fifty nights continuously, makes some good remarks. He would have these very violent patients "provided for in the State Asylum, where the staff of nurses is very large". No doubt, ordinary county asylums are much inconvenienced by the presence of homicidal patients, who act on impulse, and require constant attention, thereby draining other parts of the asylum of their watchers, besides exerting a most detrimental influence on the other residents. Many of these persons belong to the lowest orders, and have been saved from the dock chiefly by the fact that their insanity has come on early, and that their friends, making excuses for their acts of violence, have placed them under confinement before some great breach of the law has been committed. Others, insane to an equal extent, or perhaps more so, are less fortunate; and, their delinquency bringing them under the cognisance of the law, they are sent finally to Broadmoor. Many insane in county asylums commit acts of violence and destructiveness which would, were they not protected by the asylum, subject them to most extreme legal penalties;

and we see no reason why a dangerous homicidal lunatic who is constantly making assaults, and very often almost succeeding in his murderous attempts, should not be treated as a criminal lunatic, and, either by special arrangement or some form of certificate to be transmitted to the Secretary of State, sent to a building where the arrangements are sufficient. Most probably the knowledge that their destructive and homicidal habits would subject them to severe discipline, would in many instances—not, of course, in all—have a deterrent effect; for most of them know what they are doing, and can restrain themselves, or launch out, as best suits their purpose. With all respect to humanity, and to watchfulness lest such a powerful remedy as "seclusion" be abused, still most superintendents of asylums now-a-days say that it cannot be dispensed with; and that those who treat the insane as entirely irresponsible beings, avoiding the use of "seclusion", expose the servants and patients of the establishment to dangers and disturbances which are quite unnecessary, besides injuring the patient himself, who will soon become the despot and tyrant of the ward. Let all instances of "seclusion" and "restraint" be duly noted in the official records; but let us shake off that tawdry sentimentality which parades in an annual report the few numbers of instances where "seclusion" has been practised, whilst it neglects to give the injuries to the persons of others, and an account of the destruction of property, all of which a little judicious and well-timed restraint might have prevented.

THE DELANEY FEVER HOSPITAL, CHELTENHAM.

THE small-pox block of this hospital, a one-storey building, which provides accommodation for eight patients, was opened on the 15th ult. When completed, the hospital will consist of five distinct blocks: the one for small-pox just mentioned; one for scarlatina, with thirty beds; one for enteric fever, with ten beds; two for administrative and laundry purposes; and, should the funds permit, a sixth block will be built for the accommodation of typhus fever cases. The cost of the whole work is estimated at eight thousand pounds, three thousand of which have been spent on the portion now finished; which, however, provides administrative and laundry accommodation, and drainage for the portions of the hospital yet to be built. An admirable feature of the institution is its provision of private rooms for private patients, who may be attended by their own medical men and nurses. The plans are said to have received the approval of Dr. Buchanan, of the Local Government Board. The funds have been chiefly derived from a legacy of five thousand pounds left by Miss Delaney, supplemented by public subscriptions. At a luncheon which followed the opening ceremony, Dr. E. T. Wilson received special thanks for his exertions in promoting the success of the work.

GERMAN SANITARY CONFERENCE.

THE German Public Health Association will meet in Danzig from the 12th to the 15th of September. The following subjects are announced for discussion. September 12th. 1. The demands of public hygiene on the regulation of buildings in respect to the new site of towns, streets, and houses; 2. The influence of different dwellings on the health of the inmates, as far as can be ascertained by statistics. September 13th. Examination of irrigated fields, drainage, water-supply, etc. September 14th. The arguments for and against the collection of different kinds of disease in one hospital. What has been the operation of the law of March 18th, 1868, regarding the erection of public slaughter-houses? September 15th. The supply of water from wells and streams. The employment of women in factories.

THE HOSPITALS FOR WOMEN.

IF there ever was a time when the sufferings of women were neglected, or their peculiar diseases unstudied, such is not the case at present. There is just now extraordinary activity among the institutions which are specially devoted to their welfare. The old Hospital for Women in Soho Square is very desirous of increasing the number of its beds, and makes an urgent appeal for immediate assistance. The new Hospital for Women has just been holding a public meeting with the object of raising funds to enable it to take larger premises; and the Samaritan Free Hospital is about to open a branch establishment in Dorset Square. It is evident that in future there will be no lack of accommodation for poor sick women, and they will have their choice of being attended by men-doctors or women-doctors. By the way, the Soho Hospital has offered no explanation of the case of apparent abuse of charity to which Mr. Spencer Watson drew attention in our columns a few weeks ago. This institution is not in such good odour with the profession that it can afford to leave such comments unanswered.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

DR. LUSH, M.P., who has presented numerous petitions from Poor-law medical officers praying that no additional unpaid labour should be imposed on them either by the order of the Local Government Board or by Boards of Guardians, will, before the close of the session, move for the circular letter forwarded by the Local Government Board on the 23rd of March 1874 (signed J. Lambert), and call the attention of the House to the injustice perpetrated by the department. Dr. Brady, to whom the service is indebted for successfully carrying the Poor-law Medical Officers' Superannuation Act, had contemplated introducing a Bill rendering it compulsory on Boards of Guardians under certain restrictions to grant superannuation; but, in consequence of the great arrears of public business and other causes, he considered it would be injudicious to press a measure this session, and has, therefore, decided to adjourn the subject until next year, when he hopes to be enabled with better prospects of success to deal with this question; he, therefore, has not presented any of the numerous petitions which have been forwarded to him, as he is holding them in reserve for next session.

THE INTERNATIONAL SANITARY CONFERENCE IN VIENNA.

THE International Sanitary Conference was publicly opened on July 1st, in the reception-hall of the ministry of the interior in Vienna, by Count Andrassy, Minister for Foreign Affairs. The delegates from the various countries having been introduced to him, he addressed to them a brief speech, offering them a friendly welcome. The present relations of states and peoples, he said, urgently demanded suitable precautionary regulations against the plagues of the world. Quarantines were not alone sufficient; but an international central organisation was required, which should give its uninterrupted attention to all questions relating to world-plagues and quarantines. Dr. Lenz, the representative of Russia, returned thanks in the name of his colleagues. Baron von Gagern was created president by acclamation, and Professor von Pettenkofer (Germany), Dr. Fauvel (France), and Dr. Lenz (Russia) were chosen vice-presidents. It was agreed that each speaker should be limited to ten minutes. The meeting was then addressed by Professor Sigmund, who explained the objects of the Conference. On the 2nd, the following question was discussed: "Does contagious cholera only develope itself spontaneously in India, and from thence penetrate into other lands, coming always from without; or does it appear as endemic in other countries besides India?" The assembly decided that, except in India, "the cholera does not appear as endemic in any part of the world", that it has never yet become naturalised in Europe, but that its outbreaks there must be traced back to importation from its original seat in India.

IRELAND.

AT the entertainment given to Sir Garnet Wolseley by the Right Honourable the Lord Mayor of Dublin, Mr. Maurice Brooks, M.P., the following members of the profession were present: Dr. Banks, Sir Dominic Corrigan, Dr. Denham, Surgeon-Major Gore, Sir John Gray, Dr. Nedley, Dr. Owens, Dr. Ratton, Sir William Wilde, and Mr. Tufnell, President of the Royal College of Surgeons in Ireland.

THE PROPOSED NEW CHARTER FOR THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

FROM the question raised by Mr. Dunbar in the House of Commons, with reference to the above subject, many have been led to believe that the Irish College of Physicians is trying in some underhand way to obtain extra power. We believe there is no ground for such a supposition. The College is simply asking Government to grant a supplemental charter, which will confer upon it the same rights and privileges now enjoyed by the sister colleges in England and Scotland. These are, vote by ballot at College elections, and the institution of a new grade of qualification to correspond with the membership of the English and Scotch colleges. The latter seems only a just demand, as the Irish licentiates are excluded from those offices in England where membership of a College of Physicians is required. It is proposed to admit members in the same way, and under the same rules, as the sister colleges do at present, and to confer upon them similar privileges to those enjoyed by the English and Scotch colleges. We understand that care will be taken not to lower in the least the present status of the licentiates, who will, we believe, be admitted to the membership simply on application, and submission to the new bye-laws. The question of vote by ballot seems to us of but little importance; but, as vote by ballot is the approved method of conducting all elections at the present day, we do not see why it should be denied to the fellows of the Irish College of Physicians. The College had employed the ballot until a few years ago, when, by some legal technicality, it was discovered that, as the word "voice" was used in the College charter with reference to voting, in spite of voice, vote, and ballot being used as synonyms in all modern dictionaries, each fellow must call out his vote to the President, much to everybody's inconvenience. The licentiates and the public, as represented by Mr. Dunbar, need not be in the smallest degree alarmed at the very modest demands of the Irish physicians.

DUBLIN SANITARY ASSOCIATION.

THE second annual meeting of this Association was held on the 2nd instant. The chair was taken by the president, Mr. Jonathan Pim, the late member for Dublin. The meeting was attended by all the leading sanitarians in Dublin, both lay and medical, and a considerable number of ladies were present. Letters of apology for non-attendance were read from Sir Arthur Guinness and a number of the leading citizens of Dublin, as well as from several of the neighbouring nobility and gentlemen. The report showed that the society was in a flourishing condition and had improved since last year. The funds, although not large, were sufficient to meet the not very great expenditure of the Society; and the amount of work done for the money was very great. The report had to relate the usual tale of obstructiveness, carelessness, and negligence, upon the part of the Dublin sanitary authorities; and many ludicrous accounts were given by the various speakers of the wretched attempts at sanitation made by the Dublin Public Health committee. The old story about the disinfectant chamber, and the single vehicle without a horse for conveying the articles to and from the chamber, the cart for the removal of the sick to the hospital kept in one place, and the horse kept ten miles off, and various other of the late rules which our readers were familiarised with two years ago, by our report on the sanitary state of Dublin, were all told again, but with slightly less objectionable features. The Association has done good work. The following paragraph of the report shows the necessity for the clause in the new Public Health Bill, about the cleansing of ash-pits, etc.

The Public Health Committee of the corporation issued notices to the effect that privies and ash-pits would be cleansed upon the following terms.—Application is to be made, and a sum of 10s. deposited, by any citizen requiring an ash-pit to be cleansed, at the City Hall, when the authorities will undertake its cleansing if situated within the city. The charges to be made are six shillings for the first two loads, and two shillings and sixpence for each load after the first two, but in no case will less than six shillings be charged. These rates are so excessive that your committee believe that but few, if any, of the citizens have availed themselves of the arrangements provided by the Corporation. There are nine thousand tenement houses in Dublin, and, according to the rule laid down by the Public Health Committee, the ash-pits of each of these houses must be cleansed once a month. This would amount to £3 12s. *per annum* for each house, so that the total cost of cleansing the ash-pits of the tenement houses of Dublin would amount to £32,400 *per annum*. As there are in all 23,896 houses in Dublin, the total cost of the cleansing of ash-pits, at the rates charged by the corporation, could not be less than £60,000 *per annum*, or over two shillings in the pound on the valuation of the city.

The President of the College of Physicians moved the adoption of the report, which was seconded by Mr. R. O'B. Furlong, in an able speech which concluded as follows.

There were in Dublin over nine thousand tenement houses, thus rendering it very difficult to keep the city in a healthy state. Considerably more than one-third of those houses were badly provided for, in a sanitary point of view; and as to this one-third of the number, he would say, knock them down altogether. He thought that the Association could do a work which the Public Health Committee had failed to do, and which they did not seem inclined to do. Having quoted remarks made by the Lord Chief Justice in a lecture delivered some time ago, urging the improvement of the dwellings of the labouring classes, Mr. Furlong said they should not trust to the authorities in this matter, but they should appeal to private benevolence for the improvement of the houses of the poor—a work which might be accomplished by societies or by individuals. He called on the ladies of Dublin to imitate the example of Miss Hill of London, in this respect, and expressed his belief that the work of improving the dwellings of the poor, if properly taken up, would prove successful. In conclusion, he remarked that if in the report there was no allusion to the Liffey nuisance, it was because the pressure of the citizens, led by his Grace the Lord Lieutenant, would in time induce the corporation to do their duty.

On the motion of Mr. Alexander Parker, seconded by Mr. Thomas Pim, the outgoing officers were, with few alterations, re-elected for the ensuing year. Votes of thanks to Dr. Churchill, the energetic chairman of the executive committee, and to the President, concluded the meeting of this very useful and successful society.

THE RIVER LIFFEY.

THE Corporation of Dublin met on Monday last, to discuss the propriety of addressing a memorial to the Lord Lieutenant, requesting him to use his influence with the Local Government Board, in order to effect the immediate purification of the Liffey at a moderate outlay. At the meeting a communication was received from a civil engineer offering to execute the necessary works within four weeks, without causing any impediment to navigation. The question of adopting this scheme will be settled this week, and it is most probable that it will be accepted, especially as Sir John Arnott, the proprietor of the *Irish Times*, has generously offered to execute the necessary works at his own expense. At present, the effluvia from the river are dreadful, and no time should be lost in abating the evil; the result, however, is not at all creditable to the members of the Corporation, who, by their supineness for years, have shown their inability to grapple with a sanitary question of so much importance.

A TESTIMONIAL will shortly be presented to Dr. O'Neill Quinn, late medical officer of Nenagh Workhouse, and Silvermines Dispensary District, by his friends and admirers, on his retirement from professional practice.

THE CONJOINT EXAMINATION SCHEME FOR IRELAND.

AT a meeting of the King and Queen's College of Physicians, held on Monday last, the College finally adopted, with some modifications, the report of the Committee of Reference. The College struck out of the curriculum the third courses on anatomy and surgery, which had been recommended by the Committee of Reference (after long discussion and a close division), in deference to the wishes of the College of Surgeons. The College of Physicians also added to the proposed curriculum courses of lectures on Practical Medicine and Public Health. We think the curriculum is a decided improvement on that sent up by the Committee of Reference. Is the College of Surgeons still to obstruct the way to the carrying out the scheme, merely because it may diminish the incomes of the surgical and anatomical lecturers? This is really, as far as we have been able to ascertain, the only objection which has ever been raised at the College of Surgeons against the scheme.

BRITISH MEDICAL ASSOCIATION.

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President—SIR WILLIAM FERGUSSON, Bart., F.R.S., F.R.C.S., Surgeon to King's College Hospital, London.

President-Elect—EDWARD COPEMAN, M.D., Senior Surgeon to the Norfolk and Norwich Hospital, Norwich.

Permanent Vice-Presidents.

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1863	SIR GEORGE BURROWS, Bart., M.D., F.R.C.P., F.R.S., London.
1870	CHARLES CHADWICK, M.D., D.C.L., F.R.C.P., Leeds.
1861	C. RADCLYFFE HALL, M.D., F.R.C.P., Torquay.
1872	W. D. HUSBAND, F.R.C.S., York.

ELECTED	
1852	GEORGE S. JENKS, M.D., F.R.C.P., Bath.
1862	ALFRED LOCHÉE, M.D., F.R.C.P., Canterbury.
1869	FRANCIS SIBSON, M.D., D.C.L., F.R.S., London.
1860	JAMES R. W. VOSE, M.D., F.R.C.P., Liverpool.
1867	EDWARD WATERS, M.D., F.K.Q.C.P., Chester.
1872	JOHN WHIPPLE, F.R.C.S., Plymouth.

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Treasurer—RANDLE WILBRAHAM FALCONER, M.D., F.R.C.P., D.C.L., Bath.

General Secretary—FRANCIS FOWKE, Esq., 37, Great Queen Street, London.

Editor of the British Medical Journal—ERNEST HART, Esq., London.

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N.C.S.—Northern Counties of Scotland
N.W.—North Wales
R.—Reading
Sh. Et.—Shropshire Ethical
Sh. Sc.—Shropshire Scientific
S.E.—South Eastern
S.—Southern
S.M.—South Midland
S.W. & M.—South Wales and Monmouthshire
S.W.—South Western
W.S.—West Somerset
Y.—Yorkshire

BRITISH MEDICAL ASSOCIATION: SCIENTIFIC GRANTS.

We beg to call the attention of our readers to the following resolution of the Committee of Council.

"That it be recommended to the annual meeting at Norwich to grant a sum of £200 for distribution in grants in aid of researches in Anatomy and Physiology, the Action of Remedies, Clinical Medicine, or Clinical Surgery; that a grant-recommendation subcommittee be appointed by the annual meeting, to advise the Committee of Council as to the proper distribution of the proposed grants, one-half at least of such subcommittee to consist of members of the Committee of Council, with power to add to their numbers within the assigned limits. In the expectation that this recommendation will be adopted by the annual meeting at Norwich, gentlemen desirous of pursuing investigations of the nature specified are invited to send in to the President of the Committee of Council application for grants in aid of these researches; such application to be made not later than the time of the annual meeting, and to specify the nature of the researches they propose to make."

THE HARVEIAN ORATION FOR 1874.

We have received a communication from Dr. Charles West complaining that the Harveian Oration for 1874, of which he caused a copy to be forwarded to us last week, was not intended for publication in our columns. We have only to say that we found, and still find, nothing in his correspondence to express or imply a prohibition of its publication; nor, if such prohibition were intended, would it, in our opinion, have had much force. The publication in the JOURNAL of the Harveian Oration—being an oration publicly delivered at the College, to which the editors of the medical journals are officially invited by card to send a representative—has long been a matter of course. These orations have for several years been reported in our columns. The orators of late years have adopted the practice of printing them also separately (as Dr. West has done) for circulation in the pamphlet form among the Fellows. Any prohibition, therefore, of publication in the JOURNAL from the orator, although it would undoubtedly receive our attention, would not, we repeat, be at all decisive or final as to the course adopted. In this case, however, we acted under the impression that the publication of the lecture in the JOURNAL was in accordance with the wish of the orator; and we may add that we incurred considerable inconvenience, as the copy arrived late, in carrying out the usual course of such publication; and we acted in the full belief that we were paying a mark of respect to the College and of courtesy to the orator. We make no comment on the wording of Dr. West's letter, as it has been referred to the Committee of Council.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

NOTWITHSTANDING the serious illness of Professor Flower, necessitating a six months' sojourn in the land of Egypt, he appears to have so far recovered as to be able to provide his usual interesting treat to the Fellows attending the annual election, by the exhibition in the theatre of the College of the additions about to be made to the museum. From his report to the Council, it appears that as many as two hundred and seventy-four of the preparations in the pathological series have been remounted during the past year, and sixty-six new ones added. Among these last is an interesting complete articulated skeleton, showing a very peculiar condition of the vertebral column—arrest of development of the left side of the lower cervical and upper dorsal vertebræ, and of the first left rib, with ankylosis of the bodies of the corresponding vertebræ, accompanied by angular curvature of the upper lumbar region. Mr. Flower makes an appeal to the members of the College and the profession generally, which we trust will not be made in vain, on the desirability of giving larger support to the pathological department by means of donations. The College has none of the facilities for obtaining and selecting specimens possessed by the museums of medical schools attached to hospitals, where operations and *post mortem* examinations are of constant occurrence.

The conservator is well aware of the difficulties in the way of obtaining what is asked for—the trouble and occasional expense of forwarding specimens, the necessity for promptitude in doing so, the frequent deterioration or destruction of the specimens by packing or travelling, and, lastly, the disappointment which must often be felt by the donor at finding that the specimen, being a duplicate, or not in good condition, or, as too often happens, from not having any history sent with it, does not obtain a permanent place on the museum-shelves. But an earnest desire to promote the objects of the collection will overcome all of these. It will be easily understood that discrimination in respect to selection must be left to the conservators, who, in all doubtful cases, refer to the Museum Committee. It is almost impossible to say beforehand, without a careful examination of a specimen, and often until it is actually dissected and mounted, whether it ought or ought not to be placed in the museum; its value depends not on its being an example of a particular disease, but upon whether or to what extent it exhibits and illustrates the anatomical characters of that disease. It is, moreover, desirable in a museum maintained in an efficient teaching condition, that old or inferior specimens should be occasionally replaced by others showing the same facts in a more perfect manner.

Probably the idea that all departments of pathology are adequately represented already in so large a collection as that of the College, deters many from sending specimens which, although comparatively common, are still desiderata—among which may specially be mentioned lardaceous diseases of viscera, visceral syphilis, phthisis (more especially the chronic fibroid form), and diseases of the valves of the heart.

The collection of comparative anthropology has been considerably increased during the year; and the series of articulated skeletons of different races of men begin to form an important feature in the museum. A female Australian from Queensland, and two very characteristic West African Negroes from the seat of the late war, presented a few years back by Staff-Surgeon J. R. Thomas, though not recent additions to the museum, have, during the past year, been mounted and added to this series. Two skeletons (both young females) from an ancient burial-ground in Bolivia, of the characteristic short-headed race, have been presented by Reginald J. G. Leigh, Esq., who brought the bodies in the desiccated condition in which they are preserved for ages, owing to the dryness and chemical qualities of the soil. A wound inflicted by a sharp instrument in the forehead of both subjects appears to indicate that they died a violent death, perhaps (as suggested by Mr. Busk) as sacrifices. A very interesting skeleton, that of an old man of the Samoyede race, from the northernmost part of Russia, has been purchased. The principal peculiarities of this specimen have been pointed out by Mr. Busk, in a communication read before the Anthropological Institute.

It is singular, notwithstanding their practice of embalming the dead, that the very remarkable race which, for some thousands of years, occupied so important a position in history, and with whom so much of the arts and sciences of the civilised world appears to have originated, the Ancient Egyptians, are most inadequately represented in our craniological collections. The museum, a year ago, only contained nine crania ascribed to inhabitants of Ancient Egypt; and the largest general collection of skulls in England, that of Dr. Barnard Davis, has only ten. It is much to be feared that the opportunity of forming a really valuable collection of the skulls of these people, authenticated as to locality and probable antiquity, is rapidly passing away, and ere long will be entirely lost. During his recent visit to Egypt, Mr. Flower was fortunately able to secure and bring home ten skulls in tolerably perfect condition from the great necropolis of Thebes, which have now been cleaned and added to the collection; and he suggests to others, who may have the privilege of travelling in that most interesting land, to make a similar contribution to the preserved and accessible materials for the history of the human species. These skulls, in the injury to the ethmoid bone, all confirm the statement of Herodotus, in his description of the method of embalming, practised by the Ancient Egyptians, that "in the first place, with an iron hook, they draw out the brain through the nostrils, and fill up the vacuum by injecting drugs."

Among other additions to the general osteological series are two very instructive skulls of fishes, the salmon and trout, in which the central cartilaginous portions are reproduced by a plastic composition, and the ossified bones around them are consequently retained in their natural position and relations, which in the old system of mounting fishes' skulls was almost impossible.

Two skeletons of the fur-seal of the Falkland Islands (*otaria Falklandica*), male and female, have been presented by Mr. Coleman. Dr. Horace N. Watts, formerly colonial surgeon at the Islands, has also presented a very fine skull of the sea-lion (*otaria jubata*).

Mr. Sclater has presented two valuable skulls of young individuals of Baird's tapir (*tapirus Bairdii*) from Mexico, showing the progress of ossification of the remarkable nasal septum, characteristic of this species; and Mr. R. Swinhoe, of Her Majesty's Consular Service, has, as on several previous occasions, enriched the osteological series by various specimens collected by himself, including a perfect example of the water-deer (*hydropotis inermis*), remarkable for its great canine teeth and absence of antlers. The existence of this animal was quite unknown to science until it was discovered a few years since by Mr. Swinhoe in the neighbourhood of Shanghai.

To the series of cetacean skeletons (upon which Professor Flower has thrown much light), a long desired addition has been obtained in a complete specimen of the very singular freshwater dolphin of the Ganges *(platanista gangetica)*, received through the courtesy of Professor Rolleston, in exchange with the Oxford University Museum. The animal was captured by T. P. Griffiths, Esq., about two hundred miles north-west of Calcutta.

Dr. Julius Haast, F.R.S., of the Canterbury Museum, Christchurch, New Zealand, sends a specimen of one of the smaller species of the extinct wingless birds of that country (*dinornis didiformis*), far more complete than any yet received.

A skeleton of a jackal has been mounted and presented to the Smithsonian Institution at Washington, at the request of the Secretary of that liberally managed establishment, as a specimen of the method of articulation introduced and carried out by Mr. James Flower in the Museum of the College.

In the physiological collection, 266 preparations have been remounted during the past twelve months.

There have been numerous additions to the collection of surgical instruments made by Messrs. H. Bellot, J. Hogg, P. Hewett, E. L. Hussey, T. C. Jackson, T. M. Stone, W. H. B. Winchester, and P. Wormald, who has presented most of his late father's instruments.

We must here, in justice to Professor Flower, publish an extract from the report of the Royal Commission on Scientific Instruction and the Advancement of Science, of which the Duke of Devonshire was Chairman, for investigating the condition of the various National Scientific Museums; it states of the Museum of the Royal College of Surgeons of England :—

"This collection of human, comparative, and morbid anatomy was founded in the last century by the celebrated John Hunter. After his decease, the Hunterian collection was purchased by the Government, and placed in the keeping of the Royal College of Surgeons, subject to periodical inspection by a board of trustees, which is kept up by cooptation of new members as vacancies occur. Since the collection came into the possession of the College, it has been vastly extended and enriched, and is now probably the most complete and best arranged museum of its kind in existence. It is freely accessible to students; and lectures to members of the College, to which any person interested readily obtains admission, are delivered, on comparative anatomy, by the Conservator, Professor Flower, and, on surgical subjects, by Fellows of the College appointed to that duty, from time to time, by the Council.

"For the purchase of the original or Hunterian collection, and in grants for buildings, the nation has contributed £57,500 towards the expense of this museum; but the entire expense of its maintenance and continued extension, amounting to about £2,500 a year, is discharged by the College out of the fees payable by candidates who pass the examination for the College diploma; and the aggregate sum which has been thus expended far exceeds that supplied by the State.

"The comparative anatomy division of this museum, besides a great osteological collection, contains an extensive series of preparations of the internal organs and other dissected parts of animals, preserved in spirits. Preparations of this description are requisite for a well grounded study of zoology; and, as no such series exists in the British Museum, this part of the College of Surgeons' Museum may be regarded as supplemental to it. But, although it might seem, on this account, desirable to incorporate the comparative anatomy division of the College of Surgeons' Museum, in whole or in part, with the zoological collections of the British Museum, there appear to be serious objections to such a measure. For, in the first place, by far the greater part of the collection in question being the property of the College of Surgeons, a very large outlay of public money would be required for the purchase of it, were the College willing to part with it, which we have no reason to think probable. Again, so large an increase of spirit preparations in the British Museum would increase the risk of destruction in case of fire; and, lastly, the transference of the comparative anatomy collection to South Kensington would render it much less conveniently accessible than it is at present to students attending the medical schools, who now make use of it.

"Should the fund at the disposal of the College, owing to changes in medical legislation, or from any other cause, prove inadequate for the efficient maintenance and continued extension of the museum, we are of opinion that it should receive support from the State as an institution intimately connected with the progress of biological science in this country. At the same time, there seems to be no sufficient reason why it should, in such a case, pass from the custody and the management of the College, under which it has so long and so greatly prospered."

Amongst the donors to this interesting collection are Professors Gervais of Paris, Julius Haast, Quatrefages, Sir William Fergusson, Captain Harris, Drs. Fayrer, Watts, Dowse, Goodhart, etc., and Messrs. W. M. Baker, T. C. Jackson, J. Birkett, J. Gay, Rivington, McCarthy, Crowther, Garrod, Duncan, Mrs. Wormald, etc., and, as usual, the Zoological Society, the Smithsonian Institution, etc.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-SECOND ANNUAL MEETING.

THE Annual Meeting of the British Medical Association will be held at Norwich, on Tuesday, Wednesday, Thursday, and Friday, August 11th, 12th, 13th, and 14th, 1874.

President—Sir WILLIAM FERGUSSON, Bart., F.R.S., Surgeon to King's College Hospital, London.

President-elect—EDWARD COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

An Address in Medicine will be given by J. RUSSELL REYNOLDS, M.D., F.R.S., Physician to University College Hospital.

An Address in Surgery will be given by W. CADGE, Esq., Surgeon to the Norfolk and Norwich Hospital.

An Address in Obstetric Medicine will be given by JAMES MATTHEWS DUNCAN, M.D., F.R.S.Edin., Lecturer on Midwifery and Diseases of Women and Children in the School of Medicine, Edinburgh.

The business of the Association will be transacted in four Sections, viz.:—

SECTION A. MEDICINE.—*President:* Dr. Eade, Norwich. *Vice-Presidents:* Dr. Sydney Ringer, London; Dr. Durrant, Ipswich. *Secretaries:* Dr. Bradbury, 59, Corpus Buildings, Cambridge; Dr. Lowe, King Street, King's Lynn.

SECTION B. SURGERY.—*President:* Sir James Paget, Bart., F.R.S., London. *Vice-Presidents:* T. W. Crosse, Esq., Norwich; Dr. Macnamara, Dublin. *Secretaries:* F. Worthington, Esq., Lowestoft; Reginald Harrison, Esq., 51, Rodney Street, Liverpool.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Churchill, Dublin. *Vice-Presidents:* Dr. W. S. Playfair, London; Dr. Steele, Liverpool. *Secretaries:* Dr. Edis, 23, Sackville Street, London; F. Image, Esq., Westgate Street, Bury St. Edmunds.

SECTION D. PUBLIC MEDICINE.—*President:* W. H. Michael, Esq., London; *Vice-Presidents:* Dr. Bateman, Norwich; Dr. Ransome, Bowden. *Secretaries:* Dr. Bond, Gloucester; Dr. Leech, Manchester.

The Honorary Local Secretaries are:
Dr. J. B. PITT, Norwich.
H. S. ROBINSON, Esq., Norwich.
Dr. BEVERLEY, Norwich.

Papers.—The following papers have been promised.

Ogle, J. W., M.D. 1. Cases of Tumour of the Cerebellum; 2. Cases of Adenomatous Tumours within the Thorax.

Fothergill, J. Milner, M.D. The Systemic Indications of Chronic Bright's Disease.

Gowers, W. R., M.D. Cases of Convulsions from Organic Brain-Disease.

Ferrier, D., M.D. The Localisation of Function in the Brain.

Eade, Peter, M.D. A Disease of Carpenters.

Mackenzie, Morell, M.D. On the Ætiology of Bronchocele.

Anningson, Bushell, M.B. On the Ætiology of Infectious Diseases.

Ross, James, M.D. On the Action of Mercury.

Thompson, J. Ashburton, Esq. General Remarks on the Internal Administration of Free Phosphorus.

Bradbury, J. B., M.D. Notes of Six Cases of Hydatids of the Liver treated by Puncture.

Hicks, J. Braxton, M.D., F.R.S. On the Adaptation of the Galvanic Cautery to Gynæcology.

Wright, Frederick W., M.D. On Decollation as a Mode of Delivery in Arm-Presentations.

Smart, W. R. E., M.D., C.B., Inspector-General of Hospitals and Fleets. On the Relative Frequency, the Causes, and Modes of Suicidal Attempts in the Navy and Army.

Fox, Cornelius B., M.D. Water-Analysis; as it should and as it should not be performed by the Medical Officer of Health.

Thornton, W. Pugin, Esq. On the Indications for Tracheotomy afforded by the Laryngoscope.

Baker, J. Wright, Esq. Case of Lithotomy: the Nucleus of the Stone being a Broken Piece of Elastic Catheter.

Thorowgood, J. C., M.D. On the Nature of the Asthmatic Paroxysm.

Matthews, J. Duncan, M.D. Laboratory Note: On the Tensile Strength of the Fœtus.

Cormack, Sir John Rose, M.D. Diphtheritic Paralysis.

Cormack, Sir John Rose, M.D. Successful Resection of the Shoulder-joint in Case of Gunshot Wound.

Althaus, J., M.D. On some Forms of Spinal Exhaustion, and their Treatment by the Constant Galvanic Current.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above-named officers *on or before the 1st of August*.

No paper must exceed *twenty* minutes in reading; and no subsequent speech must exceed *ten* minutes.

All speeches at the General Meeting must not exceed *ten* minutes each.

Francis Fowke, *General Secretary.*

General Secretary's Office, 37, Great Queen Street, W.C.,
June 25th, 1874.

NOTICE OF SPECIAL GENERAL MEETING.

Notice is hereby given that, in accordance with Law 20, a Special General Meeting of the Association will be held at Norwich on Thursday, the 13th day of August next, immediately on conclusion of the Address in Surgery, for the purpose of considering the resolutions necessary for the incorporation of the Association.

Francis Fowke, *General Secretary.*

37, Great Queen Street, London, July 9th, 1874.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The annual general meeting of the above Branch will be held at Aberdeen, on Saturday, July 18th, at 2 o'clock.

Intimation of particulars will be made to the members by circular.

Alexander Ogston, *Honorary Secretary.*

METROPOLITAN COUNTIES BRANCH.

The twenty-second annual meeting of this Branch will be held at the Banqueting Hall, Alexandra Park, on Monday, July 20th, at 4 P.M.: President for 1873-74, Richard Quain, M.D., F.R.S.; President-elect for 1874-75, T. B. Curling, Esq., F.R.S.

At 5.30 P.M. precisely, the members will dine together; T. B. Curling, Esq., F.R.S., in the Chair. Tickets, fifteen shillings each (including ices, tea, coffee, and attendance, but exclusive of wine).

A. P. Stewart, M.D.,
Alexander Henry, M.D., } *Hon. Secretaries.*

London, June 24th, 1874.

WEST SOMERSET BRANCH.

The annual meeting of this Branch will be held at the White Hart Hotel, Milverton, on Thursday, July 23rd, at 2.30 P.M., under the presidency of H. W. Randolph, Esq.

The President will be happy to see gentlemen, and offer them refreshments, at his house before the business of the meeting commences.

The Chair will be taken at 2.30 P.M.

Dinner at the White Hart Hotel will be served at 5 o'clock.

W. M. Kelly, M.D., *Honorary Secretary.*

Taunton, July 7th, 1874.

CUMBERLAND AND WESTMORLAND BRANCH.

The annual meeting of the above Branch will be held at Carlisle, on Wednesday, July 29th, 1874.

Gentlemen intending to bring forward communications, are requested to give immediate notice.

Henry Barnes, M.D., *Honorary Secretary.*

Carlisle, June 30th, 1874.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

At a meeting of the Committee of Council, held at the Freemasons' Tavern, Great Queen Street, London, on Thursday, the 2nd of July, 1874—present, Mr. G. Southam, (President of Council) in the Chair; Dr. R. W. Falconer (Treasurer), Mr. A. Baker, Dr. C. Bastian, Dr. J. M. Bryan, Sir J. Cordy Burrows, Dr. A. Carpenter, Dr. C. Chadwick, Dr. E. Copeman, Dr. Ward Cousins, Dr. A. Davies, Dr. Balthazar Foster, Mr. R. S. Fowler, Mr. W. D. Husband, Dr. W. Procter, Dr. R. Shettle, Dr. A. P. Stewart, Dr. T. Underhill, Dr. W. F. Wade, Dr. Waters (Chester), Dr. Eason Wilkinson, and Mr. Samuel Wood.

The minutes of the last meeting and special meeting were read and confirmed.

Resolved—That the gentlemen whose names appear in the circular convening the meeting be, and they are, hereby elected members of the Association.

The minutes of the Journal and Finance Committee of the 2nd instant were read, and it was

Resolved—That the minutes of the Journal and Finance Committee of this date be approved, and the recommendations carried into effect.

The report of the combined subcommittees on the alteration of the laws, and the incorporation of the Association was then read.

Moved by Mr. Husband, seconded by Dr. Falconer,

That the Memorandum, Articles of Association, and Bye-Laws, as recommended by the combined Committees, under the advice of the Solicitor, be printed in the Journal, and circulated among the members of the Council, and, if approved, be referred to a Special Meeting of the Association, to be held during the Annual Meeting at Norwich.

Whereupon an amendment was moved by Sir Cordy Burrows, seconded by Mr. Davies,

That nothing more be done in the matter till steps be taken to ascertain the practicability of obtaining a Royal Charter.

The Amendment having been put from the Chair, the same was declared to be lost. The original motion was then put, and declared to be carried.

The General Secretary reported that the Medical Society of North Staffordshire had formed a Branch of the British Medical Association, under the name of the Staffordshire Branch of the British Medical Association, and placed a copy of the Laws of the Branch upon the table.

Moved by Dr. Foster, seconded by Dr. Wade, and

Resolved—That the Laws of the Staffordshire Branch of the Association be approved, and the Branch recognised.

The General Secretary reported that two essays had been received for competition for the Hastings Prize Medal.

Resolved—That Dr. Sibson, F.R.S., Dr. Quain, F.R.S., and Dr. Balthazar Foster be requested to act as adjudicators of the Hastings Prize Essay for the year 1874—"On the Action of Alcohol in Health and Disease".

Moved by Mr. Baker and resolved,

That the subject of the next Hastings Essay be "The Treatment of Aneurism".

The list of attendances of the Committee of Council during the last twelve months was then read over, and appeared as follows:

H. C. Bastian, M.D., F.R.S., London	(3)
Sir J. Cordy Burrows, Knt., Brighton	(1)
W. Cadge, Esq., Norwich	(0)
Alfred Carpenter, M.D., Croydon	(5)
P. R. Cresswell, Esq., Merthyr Tydfil	(1)
B. Foster, M.D., Birmingham	(4)
E. L. Fox, M.D., Brislington, Bristol	(3)
R. Harrison, Esq., Liverpool	(2)
Berkeley Hill, M.B., London	(1)
J. R. Humphreys, Esq., Shrewsbury	(1)
W. E. Image, Esq., Bury St. Edmunds	(0)
R. Quain, M.D., F.R.S., London	(2)
Wm. Roberts, M.D., Manchester	(0)
H. W. Rumsey, M.D., F.R.S., Cheltenham	(1)
T. H. Smith, Esq., St. Mary Cray	(2)
T. Underhill, M.D., West Bromwich	(3)
W F. Wade, M.B., Birmingham	(5)
A. T. H. Waters, M.D., Liverpool	(2)
C. G. Wheelhouse, Esq., Leeds	(3)
Eason Wilkinson, M.D., Manchester	(3)

Number of meetings, five.

The names of Mr. Cadge, Mr. Image, and Dr. Roberts were struck off, and those of Dr. Rumsey and Mr. Cresswell by lot in accordance with Law 13.

Moved by Dr. Carpenter, seconded by Sir Cordy Burrows, and

Resolved—That the remaining fifteen be nominated for election to the Committee of Council for the year 1874-5, together with the five to be added.

A ballot was then taken, and the following gentlemen were declared to be chosen, viz.: Dr. Bateman (Norwich), G. W. Callender, Esq., F.R.S. (London), Dr. Humble (Newcastle-on-Tyne), F. E. Manby, Esq. (Wolverhampton), Inspector-General Smart, M.D., C.B.

Read letter from Dr. Rumsey, asking that a meeting of the State Qualification Committee might be fixed for the first day at Norwich, at 9.30 in the morning of Tuesday.

Resolved—That, in accordance with Dr. Rumsey's request, a meeting of the Qualification in State Medicine Committee be held on Tuesday, the 11th day of August next, at half-past nine o'clock in the morning.

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

THE eighteenth annual meeting of this Branch was held at Buckingham, on Thursday, June 25th, at 2.30 P.M. The President-elect hospitably entertained the members and friends at his house previously to the meeting.

The chair was taken by the retiring President, Dr. BRYAN, who briefly introduced his successor, R. DE'ATH, Esq.

Autumnal Meeting.—It was decided that the autumnal meeting be held at Newport Pagnell in October next.

Next Annual Meeting.—The next annual meeting is to be held at Cambridge in June 1875, in conjunction with the Cambridge and Huntingdon and East Anglian Branch, under the joint presidency of Dr. Humphry.

Officers and Council.—The following were elected. *President-elect:* H. Terry, Esq. (Northampton). *Council:* F. Buszard, M.D.; C. J. Evans, Esq.; G. P. Goldsmith, Esq.; A. Haviland, Esq.; J. H. Hemming, Esq.; J. A. Macdonald, M.D.; C. E. Prior, M.D.; R. W. Watkins, Esq. *Representatives in the General Council:* R. Ceely, Esq.; W. Newman, M.D.; W. Paley, M.D.; H. Terry, Esq.; T. J. Walker, M.D. *Honorary Secretaries:* J. M. Bryan, M.D.; W. Moxon, Esq. *Treasurer:* J. M. Bryan, M.D. *Representative in Parliamentary Bills Committee:* J. M. Bryan, M.D.

Communications.—The following communications were made.

1. The PRESIDENT read a note from Dr. FRANCIS of Northampton of a case of Aneurism of the Arch of the Aorta. There was an absence of some of the usual symptoms, such as dyspnœa, etc. The man eventually died of hæmorrhage from large varicose veins of the left arm and œdema.

2. Dr. MACDONALD read notes of cases of Typhoid Fever occurring at Woburn. In the discussion, the opinion seemed to be that the disease might spread through fomites, independently of fæcal evacuations.

3. Mr. DE'ATH read an account of three cases of Severe Wound of the Throat.

4. Mr. CEELY showed a specimen of a large Ulcer of the Stomach, which had probably existed some years. Adhesions to the pancreas had taken place, life being thereby prolonged. The man died of hæmorrhage at the age of fifty-six.

Dinner.—The members dined together at the Hind Hotel at 5.30 P.M.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SANITARY LAWS AMENDMENT BILL.

At a meeting of the Parliamentary Bills Committee, held last week—present, Mr. Ernest Hart, in the Chair, Dr. Tatham (Birkenhead), Dr. Syson (Huntingdon), Dr. Holman (Reigate), Dr. Fox (Chelmsford), Mr. Rivington, Dr. Seaton (Sunbury)—the Sanitary Laws Amendment Bill (1874) was considered. The Chairman stated that he had brought the clauses of the Bill under the consideration of many medical officers of health, and that replies had been received from the following medical officers of health, among others: Dr. Bond, Gloucester; Dr. Child, Oxford; Dr. Fox, Chelmsford; Mr. Haviland, Northampton; Dr. Wilson, Leamington; Dr. Syson, Huntingdon. The following is a summary of their opinions.

Dr. BOND has not attempted to criticise or amend the proposed Bill, believing that it has been drawn up "to meet the administrative exigencies of the office"; but has confined himself to "suggestions for the consideration of the Committee as addenda to Mr. Sclater-Booth's Bill". These "addenda" comprise eighteen clauses as to "sewers and drains", "removal of nuisances", and extended definition of the word "nuisance"; "prevention of the spread of infectious diseases", by providing hospitals, and inflicting penalties for exposure; enlarged interpretation of "person in charge"; also rendering it imperative on medical practitioners to forward as early as possible notice of infectious cases, and payment for such notice; also as to "water-supply", and "provision of privies and water-closets". Under this last head, Dr. Bond proposes in certain cases to empower an owner of property not having any land on which to erect a privy or privies, to acquire such land from his neighbour, provided no nuisance or annoyance, public or private, is created thereby.

Dr. CHILD is of opinion that, "if passed as it stands, much of the Bill would be a dead letter in country districts", owing to its "permitting" people to do things which they have not the slightest intention of doing. Dr. Child suggests that Sections 50 and 55 (?) should be rendered compulsory, and considers Sections 11, 50, and 41 to 49, as the most important in the Bill, particularly 47 and 48, as giving power to a rural sanitary authority to make bye-laws. But he thinks these clauses are by no means clearly expressed, and will be perfectly useless, unless rendered compulsory. As to omissions in the Bill, Dr. Child complains (1) that it contains no provision for rendering the appointment of a Sanitary Committee compulsory; and that, without the appointment of such a Committee, it is impossible for any ordinary Board of Guardians to do any serious sanitary work. Dr. Child therefore suggests that the appointment of a Sanitary Committee should be made compulsory, and that it should be put upon the same footing as the Assessment Committee. Another omission noticed is, that the Bill contains no clause conferring any legal status on the Central Committee for a compound district. Dr. Child also suggests that the power of compelling combination of two or more port sanitary authorities should be extended (under Section 14) to all sanitary authorities. In Section 41, Dr. Child would add "or inspectors of nuisances" after the word "surveyor". Attention is also drawn to the omission of all further provision for the prevention of the spread of infectious diseases, and "of all systematic attempt to arrange, simplify, and consolidate the forty Acts or so which now constitute what is understood (?) by 'sanitary law'." However, Dr. Child would take the Bill for what it is, as he thinks it professedly leaves more weighty and disputed matters to be dealt with more at leisure next session. The urgent need for amended legislation, Dr. Child thinks, is very great; and that, until medical officers are assisted by such legislation, their work is paralysed.

Dr. FOX thinks the designation of the Bill in the BRITISH MEDICAL JOURNAL as "in the main an office Bill" is the correct one. He is of opinion that four clauses only will be of service in his districts—viz., 11, 20, 56, and 50; and suggests that in clause 50, after the words "if it shall be represented to any sanitary authority", the words "by the medical officer of health" shall be inserted, as an inspector of nuisances is not competent to give an opinion as to the quality of water. Adopting the "omissions" alluded to in the BRITISH MEDICAL JOURNAL, Dr. Fox calls attention to others, viz.: 1. The omission of any provision as to returns of mortality and payment for the same; 2. Omission of any clause empowering a medical officer of health to inspect, for the purpose of making his returns or reports, the books of a registrar of births and deaths; 3. The omission of provisions for checking the spread of infectious diseases; 4. Overcrowding.

Dr. WILSON of Leamington is of opinion that "no urgent necessity for further sanitary legislation this session" exists; but, as the Bill is a Government measure, he would suggest that clause 5 should also make provision for giving a legal status to the committee of delegates; that clause 21 should also apply to every rural sanitary authority invested with urban powers; that to clause 33 should be added words giving any sanitary authority compulsory powers to acquire land for dealing with sewage; that clause 50 should be altered so as to enable any sanitary authority to close any well, etc., immediately on having reason to believe that it was polluted; also that any sanitary authority should be enabled to call upon owners to provide proper water-supply. Dr. Wilson also makes several suggestions, in the main similar to those made by Drs. Bond, Child, and Wilson as to infectious diseases; and would like to see every rural sanitary authority endowed with powers to make bye-laws as to dwellings, ashpits, privies, and cesspools, common lodging-houses, and slaughter-houses. He also suggests that the Local Government Board should be empowered to enforce combination; and that such combinations should not be dissolved without their consent.

Dr. SYSON suggests that Mr. Sclater-Booth's Bill should be accepted as far as it goes, but that attempts should be made so verbally to alter clause 45 as to make it clear that rural sanitary authorities can and may make bye-laws on all matters on which an urban authority may make bye-laws; and that, by order of the Local Government Board, any sanitary authority *shall* make bye-laws on one or all these matters; that section 50 of the Act should be amended so as to enable any sanitary authority to order the closure of any well, etc., on the certificate of any public analyst or their medical officer of health; power being given to rescind such order on being satisfied that the water, etc., has become or been rendered fit for drinking purposes; that, looking at the Bill as an "office Bill", it is highly important to specify what drains, sewers, etc., do, and what do not, belong to a rural sanitary authority (the same as to urban authority); that all drains, privies, water-closets, cesspools, and ashpits, shall be under the control and survey of the sanitary authority, and shall be altered, repaired, or reconstructed from time to time as they may think fit. With regard to the seizure of diseased meat, Dr. Syson suggests that any policeman should be empowered to seize meat at any time, just as inspectors of nuisances are now empowered to do; and that "dealt with by a magistrate", in 25 and 26 Vict., c. 117, s. 2, should be interpreted so as to facilitate and unify proceedings under that Act. Also that power should be given to all sanitary authorities to close any house or part of a house presented to them by their medical officer of health as unfit for human habitation, power being reserved to revoke such order on proof of fitness for habitation.

The Parliamentary Bills Committee, after considering the above, in which they were greatly assisted by the able and laborious summary, prepared by Dr. Syson, recommended that a communication should be addressed to the President of the Local Government Board, urging the great desirability of the following amendments and addenda to the Public Health Amendment Act now before Parliament.

The Committee divided their recommendations into two parts: firstly, amendments and addenda, without which they believe Mr. Sclater-Booth's Act will be of little or no service, even as a temporary measure; secondly, points entirely omitted in any existing Sanitary Act, but as to the necessity of which almost all medical officers of health and sanitarians are strongly convinced.

The Committee found, after extensive inquiry, that Clauses 10 and 11 were everywhere hailed with great satisfaction as removing serious existing obstacles in the way of sanitary work.

An unanimous expression of opinion was also elicited that the principle laid down by Clause 14 should be carried still further; the Committee, therefore, recommended that the following Clause, or one similar in extent or purpose, be added to the Bill.

Sanitary Authorities may be Combined.—The Local Government Board may combine the sanitary authorities of several districts, urban as well as rural, or both, and assign to such authority a title, and otherwise proceed, as in the case of an ordinary combination of sanitary authorities, rural and urban, or both. And such combination shall be an united district to which all the provisions of the Sanitary Acts which relate to sanitary authority shall apply, except a necessity for any previous application to the Local Government Board and previous inquiry.

The Committee also agreed on the following suggestions.

In Clause 21, it seems most desirable that the words "or rural" should follow the word "urban", or else the word "urban" should be omitted. The great urgency and necessity for the addition of these words having been most strongly urged from all quarters. The Clause should, therefore, read "Every urban or rural sanitary authority (or, Every sanitary authority) shall, where the Local Government Board direct, make due provision for the purpose—cleansing of streets, the removal of house refuse from premises, and the cleansing of earth closets, privies, ashpits, and cesspools within its district."

It appears desirable also to add "and employing and removing the contents" after the word "cleansing".

As the adoption of the foregoing amendment might entail considerable responsibility on a sanitary authority, the following Clause is recommended as a necessary sequel. "All privies, drains, ashpits, and cesspools shall be under the control and survey of the sanitary authority, and shall be altered, repaired, or reconstructed from time to time as the sanitary authority may think fit."

It also seems desirable to add to such a Clause—"And no new privy, cesspool, ashpit, water-closet, or earth-closet shall be erected without the plans for the same having been submitted to and approved by the sanitary authority."

The Committee have been informed that several Local Acts contain Clauses similar to this suggested one, so no new principle or apparent infringement of private rights would be involved by its adoption.

The Committee think it would be desirable to state in Clause 40 that this Clause in no way affects the powers of a sanitary authority to conduct proceedings and issue notices through and by any officer duly authorised by resolution, special or general, under 29 and 30 Vict., c. 90, sec. 48.

To Section 31, should be added, for the sake of the convenience of persons living in rural districts "at the office of or to the Inspector of Nuisances."

Also, as the appointment of "surveyor" is neither compulsory nor universal, a Clause to the following effect is recommended. "Where no 'surveyor' has been appointed by a sanitary authority, any notices or orders which a surveyor is appointed to receive or serve under any Sanitary Act shall, with the consent or by orders of the Local Government Board, be served or received by the Inspector of Nuisances." This appears to be a most important addition, as many notices under the Sanitary Acts are to issue from and be signed by the "surveyor", who also has powers of immediate action in cases of emergency conferred upon him (*vide* page 29 Official Digest, Rural Sanitary Authorities).

As Clauses 47 and 48 are rather vague, it is suggested that the following Clause be added to the Bill. "After the passing of this Act, any rural sanitary authority may, and by order of the Local Government Board shall, be endowed with and exercise any of the powers, duties, discretions, or authorities vested in or exercised by any urban sanitary authority under this or any other Sanitary Act." By Sanitary Acts in this Act is meant "the Local Government Acts", "the Sewage Utilisation Acts", the "Nuisance Removal Acts", "Common Lodging-houses Acts", "Diseases Prevention Acts", "Bakehouse Regulation Act", the "Artisans' and Labourers' Dwellings Act", "Baths and Washhouses Acts", the "Labouring Classes Lodging-house Acts", and the "Public Health Act, 1872".

Clause 50 has been generally welcomed; but, at the same time, from the strictures passed upon its wording, the Committee recommend the substitution of the following.

"If it shall be represented in writing to any sanitary authority by the medical officer of health or the public analyst that, within their district, the water in any well, spring, pump, tank, or pond used for drinking purposes is so polluted as to be unfit for drinking purposes, such authority may, by their order conspicuously affixed at, to, or near such well, spring, pump, tank, or pond, direct the same to be closed, or make or take all necessary steps to close the same; provided always that they may at any time revoke such order, on proof being afforded that the water has become or been rendered fit for drinking purposes.

"Any person aggrieved by such order may appeal to the justices having jurisdiction within the district, who, if they think fit, may order an analysis to be made, and may, if such analysis be favourable, revoke the order made by the sanitary authority.

"In reporting on the water in any well, pump, spring, or tank, the medical officer of health or public analyst shall state whether, in his opinion, there is a probability of such water recovering its purity within reasonable time."

The Committee would also suggest that Clause 55 be still further extended, so as to enable a police officer as well as a medical officer of health or inspector of nuisances (26 and 27 Vict., c. 117, sec. 2), at all reasonable times, to examine and, if necessary, seize any unwholesome food, etc.

Also, in order to be dealt with by a magistrate, it shall suffice, if one be not within one mile from the place where the meat was seized, to retain or, if necessary, destroy the meat, etc., and summon the person in whose charge or possession the meat, etc., was found to the next petty sessions. But in no case must any meat, etc., be destroyed until it has been inspected and examined by the medical officer of health or his legally qualified deputy.

So far, the Committee have touched only upon points raised in or by Mr. Sclater-Booth's Act. They would, however, most emphatically urge the necessity for immediate provision being made for the payment of registrars for mortality returns.

This has been suggested (and authorised) to sanitary authorities by a circular letter from the Local Government Board. As the Local Government Board possesses no compulsory powers in this matter, their recommendation has in numberless districts been unattended to. The circular letter above referred to recommended that returns should be furnished and payment made according to the scale laid down in Sir C. Adderley's Bill.

The Committee urge the Local Government Board's suggestion on the Government, and would also suggest the following addition as an appendage to it.

"And it shall be lawful for any officer of health, at all reasonable times after one week's notice in writing, to inspect the books of the registrars or subregistrars of births and deaths, and to make notes and extracts from them for the purpose of making or compiling his reports, returns, or statistics."

At present, registrars may and do refuse to allow their books to be inspected, although, without such inspection, no officer of health can make the returns required of him by Act of Parliament and by the Local Government Board. No provision is made for preventing the further spread of infectious diseases; no provision of fever-hospitals is made compulsory on sanitary authorities; nor is any provision made for early information of new cases of infectious sickness from medical men.

"Overcrowding" is entirely overlooked, and the Committee would suggest that, by the repeal in this Act of 18 and 19 Vict., c. 121, sec. 29, of the words "consisting of more than one family", would leave the medical officer of health all-powerful under the definition of nuisances, 18 and 19 Vict., c. 121, sec. 8; 29 and 30 Vict., c. 90, sec. 19.

If it be the opinion of the law officers of the Crown that the definition of "any house or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates" is irrespective of the limitation as to "more than one family" in 18 and 19 Vict., c. 121, sec.

29, a declaration of this opinion will, of course, be equivalent to a new and amended clause.

On the above and many other matters, the suggestions of Dr. Bond, medical officer of health for Gloucester, are very valuable, and they are handed in as likely to diminish the labours of the Local Government Department in framing amended sanitary legislation. The Parliamentary Bills Committee of the British Medical Association have, however, through their deputation, endeavoured as far as possible to be very brief, and for the present only attempt to render existing legislation officially workable, and to render the duties required of medical officers of health by Acts of Parliament, the orders of the Local Government Board and public opinion fairly practicable.

As a last word, the Committee was convinced of the desirability of the introduction of a clause rendering every Act permissible by any sanitary authority compulsory by order of the Local Government Board; also that, owing to the working of some of the clauses in Mr. Sclater-Booth's Bill, the final clause should state, except where expressly repealed, all powers conferred were in addition to, and not in lieu of, any already conferred by existing Acts.

The above recommendations are now under the consideration of the President of the Local Government Board.

MILITARY AND NAVAL MEDICAL SERVICES.

CHANGES IN THE ARMY MEDICAL DEPARTMENT.

We understand that Deputy Surgeon-General Bent will, on promotion, shortly take up the duties of principal medical officer at Aldershot, in succession to Surgeon-General Gordon, C.B.; Deputy Surgeon-General Mackinnon, C.B., assuming the post of second in command. The new important and desirable office of pathologist to the camp at Aldershot will shortly become vacant by the departure of Dr. Becker for India. There can only be one opinion regarding the laborious and thoroughly scientific manner in which this able officer has worked at Aldershot during his period of service there.

Some uneasiness is felt in medico-military circles at present, on account of a rumour which has attained wide circulation, and which seems to indicate that all the second medical officers are shortly to be removed from their regiments. We trust that this may prove to be without foundation, and that another insidious blow may not be levied against the comfort of medical officers, as well as against the efficiency of the service. The sole and unaided charge of a regiment marching from 600 to 800 strong is not only a responsible but a very laborious post, involving as it does constant medical work, in addition to sanitary duties, and frequent attendance at drills and field-days. The withdrawal of regular and defined assistance will not only render the medical officer liable to constant and worrying interruptions, but it will tie him down very closely and prevent his enjoyment even of the bare sixty days annual leave to which he is entitled. It too often happens, even under the present regulations, that a medical officer is obliged to pay for help out of his own pocket before he can get away; and we are convinced that any plan such as is now suspected to be in contemplation will cause a serious falling off in the rapidly fading popularity of the Army Medical Department.

ARMY MEDICAL SERVICE.

Sir,—I shall feel much indebted if you will allow me space for a few remarks, lest outsiders who peruse your paper should think that the wants and grievances of army medical officers are set forth in the letter of I. V. R. C. in your issue of June 27th.

I do not believe that two men in a hundred care a single iota about the changes in title and new titles suggested in your correspondent's letter; and I only wonder that he did not suggest a death's head and cross-bones as a badge, instead of the Geneva cross, which belongs to that smart and well-deserving corps the Army Medical Corps. Why deprive them of it? The former would have been more characteristic of the "Royal doctors". Should combatant officers have read your correspondent's dreadful prognostication as to their future fall in social position, they will, doubtless, feel sorry for themselves.

I do not know what rank I. V. R. C. holds, but should judge from his letter that he, at any rate, has not been a sufferer by the recent Warrant, or else his "cacoethes scribendi" would have prompted him to write something more sensible than what he has on the subject.

I myself rank as Surgeon, and consequently must regard the obnoxious Warrant from my point of view, and I have met several medical officers who quite agree with me, that the following are some of the causes of discontent so wide-spread among the "Royal doctors".

1. The abolition of the regimental system, by which we have lost a comfortable home, good "social position" (as I. V. R. C. hath it), many privileges connected with mess, servants, etc., the latter of whom we were able to retain for some time, and dress in a manner similar to the servants of other officers.

We have received in exchange—what? A vagabond, uncertain, and uncomfortable life, with no settled home, no mess, and a change of servants on each move; for the liberal allowance of 1s. *per diem* is quite insufficient to provide a civilian servant. I deny that the abolition of the regimental system can ever prove beneficial to the army. Ask commanding officers, men, and medical officers their opinion of the "unification system", and see what their answer will be; and I contend that they are better judges than a few obstinate administrative officials, who, having got a notion into their heads, refuse to discard it, though it must be opposed to their common sense. How can a department ever become unified when so many individuals are discontented and consider themselves sadly aggrieved?

2. The breach of faith about forage to Surgeons-Major promoted after a certain date; this must be condemned by all men with any feeling of honour.

3. Slow promotion. I would remedy this by offering a sufficient inducement to our seniors to retire, also by offering a proportionate scale of retirement to men of ten and fifteen years' service, and by opening up posts for retired medical officers in civil Government employ, militia, and other situations.

I am no advocate, as some are, for ousting our seniors out of the service after they have borne the burden and heat of the day, have deserved well of their country, and are quite right to do the best for themselves that they can, and get all they can out of an ungrateful Government.

Why do so many men, after entering the Army Medical Service, relapse into mere mechanical drudges, taking little or no interest in their work, and not keeping pace with the scientific discoveries of the time? Is it because they are deficient in intellect, or naturally lazy? No; it is because no inducement is held out to them to improve themselves; they know promotion and increase of pay must come if they will only wait long enough, without any effort on their part, and they come to look on these as the "summum bonum" of life; whereas, if any berths in which they might serve on the "seconded list" were open to them, they would strive to render themselves worthy of such posts, and would as certainly make their mark as their brethren in civil life.

The above I hold to be the primary reformation needed as regards the Army Medical Department, and not such insufficient and harassing measures as have rendered our lives a burden to us for the last twelvemonth.

In conclusion, allow me to recommend the "powers that be", that if they want a really efficient medical service, they cannot afford to ride rough-shod over the prejudices and feelings of individuals in the way they have done lately, and sooner or later the ill effects of such a mode of proceeding must show themselves.

With excuses for the length of my letter, I am, etc.,

A Surgeon.

NAVAL MEDICAL APPOINTMENTS.

Surgeon E. V. de Méric, from H.M.S. *Britannia* to H.M.S. *Dart*, *vice* Farr.

Staff-Surgeon (second class) C. J. Fennell, additional, H.M.S. *Duke of Wellington*, for Haslar, to H.M.S. *Victor Emmanuel*, when commissioned, to take the place of H.M.S. *Princess Charlotte*, *vice* Bennett, period expired.

Staff-Surgeon Henry Slade, from half-pay, to H.M.S. *Trincomalee*, *vice* Clarke, period of service expired.

Staff-Surgeon (second class) Peter M. Roe, from half-pay, to H.M.S. *Volage*, commissioned.

Surgeon Lewis Edwardes, M.B., from H.M.S. *Agincourt* to H.M.S. *Volage*, commissioned.

Surgeon S. K. Powell, from half-pay, to H.M.S. *Agincourt*, *vice* Edwardes.

Surgeon George B. Murray, additional, H.M.S. *Duke of Wellington*, for Haslar Hospital, to Haslar Hospital, *vice* Fennell.

Surgeon W. J. Morier, M.D., from H.M.S. *Duncan*, additional, for Sheerness Reserve, to H.M.S. *Jackal*, *vice* Sexton.

Staff-Surgeon (second class) T. A. O'Flaherty, M.D., from half-pay, to H.M.S. *Duncan*, additional, for service with Sheerness Reserve, *vice* Morier.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, July 6th, 1874.

Outbreak of Small-pox at Gloucester.—Mr. Sclater-Booth informed Colonel Kingscote that his attention had not been called to any recent outbreak of small-pox at Gloucester; but in the month of January the Local Government Inspector discovered a considerable amount of small-pox in the workhouse infirmary, and directions were given to the local authorities as to the course that should be pursued. Some difficulty, however, had been experienced in carrying out the recommendations, and a private Bill was now passing through Parliament upon the subject. The last official letter which they had received from the Town Clerk of Gloucester upon the subject was dated in February last, and it said that the disease was diminishing.

Vaccine Lymph.—In reply to Mr. Meldon, Sir M. H. Beach said that in order to supply vaccine lymph gratuitously in Ireland as in England would require that the present grant of £400 to the Dublin Cow-pox Institution should be doubled. The question whether it could be given was one more for the decision of the Treasury than for himself. If such an arrangement was made, the management of the supply must be entrusted, as in England, to the Local Government Board.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 2nd, 1874.

Cory, Frederic William, Buckhurst Hill
Ranking, John Ebenezer, St. Bartholomew's Hospital

The following gentlemen also on the same day passed their primary professional examination.

Brenchley, Algernon Dutten, Guy's Hospital
Davis, Henry, Middlesex Hospital
Evans, Thomas, King's College Hospital
Rodwell, Edward Manley, Charing Cross Hospital
Vanes, Arthur Bayley, Queen's College, Birmingham

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERDEEN—Public Analyst. Applications, 15th instant, to James Valentine, Clerk of Police.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications, 10th August, to Sir W. M. Muir, Director-General.

BARNWOOD HOUSE LUNATIC ASYLUM, Gloucester—Medical Superintendent: £500 per annum, house, and board. Applications, 22nd instant, to A. J. Wood, M.D., Superintendent.

BODMIN URBAN SANITARY DISTRICT—Medical Officer of Health: £20 for one year. Applications, 14th inst., to P. J. Wallis, Clerk to the Authority.

BRIGHTON AND HOVE DISPENSARY—Physician-Extraordinary. Applications, 3rd August, to Somers Clarke, Honorary Secretary.—House-Surgeon, Western Branch.

BRISTOL GENERAL HOSPITAL—Secretary.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary: £80 per annum, increasing to £100, board, lodging, etc. Applications, 4th August, to George Fell, Solicitor.

BURNLEY RURAL SANITARY DISTRICT, combined with several others—Medical Officer of Health: £500 per annum. Applications, 27th instant, to A. S. Dean, Clerk to the Burnley Rural Sanitary Authority.

CARRICKMACROSS UNION, co. Monaghan—Medical Officer for the Donaghmoyne Dispensary District; £100 per annum.

CERES, Fifeshire—Parochial Medical Officer and Public Vaccinator: £23 per annum, and fees; and £42 per annum as Medical Officer of the Adamson Institution. Applications, 31st instant, to Mr. Younger, Inspector of Poor.

CROOM UNION, co. Limerick—Apothecary to the Workhouse: £20 per annum; and to the Croom Dispensary District: £30 per annum. Applications, 23rd instant, to J. D. Fitzgerald, Clerk.

DENBIGHSHIRE INFIRMARY—House-Surgeon and Secretary: £85 per annum to commence, with board, washing, and residence in the house.

DURHAM UNIVERSITY COLLEGES OF MEDICINE and PHYSICAL SCIENCE, Newcastle-upon-Tyne—Professor of Biology combined with Physiology: £450 per annum, and a portion of fees. Applications, 15th August, to T. Wood Bunning, Secretary to College of Physical Science.

EAST LONDON HOSPITAL FOR CHILDREN, Ratcliff Cross—Assistant Visiting Physician.

EVANGELICAL PROTESTANT DEACONESSES INSTITUTION AND TRAINING HOSPITAL, Tottenham—Resident House-Surgeon.

GENERAL INFIRMARY, Northampton—House-Surgeon and Assistant House-Surgeon: £125 and £30 per annum, furnished apartments, board, etc., respectively. Applications, 18th instant, to S. P. Bennett, Secretary.

GOWER UNION—Medical Officer for the Eastern District; £20 per annum.

HENDON UNION, Middlesex—Medical Officer and Public Vaccinator for the Weald District: £30 per annum, and fees. Applications, 29th instant, to W. A. Tootell, Clerk, Edgware.

HUNGERFORD UNION—Medical Officer for the Great Bedwin District: £83:3 per annum.

HUNTINGDON COUNTY HOSPITAL—House-Surgeon: £60 per annum, board, and rooms. Applications, 15th instant, to M. Foster, Esq.

INDIAN MEDICAL SERVICE—Fourteen Surgeons. Applications, 10th August, to T. P. Pears, Major-General, Military Secretary.

KENMARE UNION, co. Kerry—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Sneem Dispensary District: £100 per annum, and fees. Applications, 21st inst., to Thomas M. Jermyn, Hon. Sec., Less Cottage.

KING'S COLLEGE, London—Professor of Materia Medica.—Professor of Comparative Anatomy.

KING'S COLLEGE HOSPITAL—Physician.

KINGTON UNION, Herefordshire—Medical Officer and Public Vaccinator for the New Radnor District: £80 per annum, and fees. Applications, 24th July, to Anthony Temple, Clerk.

LEEDS PUBLIC DISPENSARY—Surgeon.

LIVERPOOL ROYAL SOUTHERN HOSPITAL—Junior House-Surgeon: £84 per annum, board and lodging. Applications, 22nd instant, to James Houghton, Treasurer.

MOHILL UNION, co. Leitrim—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rynn Dispensary District: £120 per annum, and fees. Applications, 27th instant, to Francis Gearty, Honorary Secretary, Finnaloughta, Dromod.

NORTH BIERLEY RURAL SANITARY DISTRICT—Medical Officer of Health.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill—House-Physician for six months. Applications, 22nd instant, to Ralph Hordley, Secretary.

NOTTINGHAM GENERAL HOSPITAL—Assistant House-Surgeon.

OWENS COLLEGE, Manchester—Professor of Anatomy: minimum emoluments, £500 per annum. Applications, 1st August, to the Council, under cover to J. Holme Nicholson, Registrar.

POCKLINGTON UNION—Medical Officer for the Market Weighton No. 1 District: £19 per annum.

QUEEN'S HOSPITAL, BIRMINGHAM—House Physician: £50 per annum, board, lodging, etc. Applications, 16th instant, to Walter Young, Secretary.

ROCHDALE INFIRMARY—House-Surgeon: £100 per ann., board, lodging, etc.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Physician. Applications, 14th instant, to C. L. Kemp, Secretary.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields—Curator: £100 per annum.—Assistant House-Surgeon: £50 per annum, board, and lodging.

ROYAL NAVAL MEDICAL SERVICE—Surgeons. Applications, 6th August, to A. Armstrong, Director-General.

SHEFFIELD UNION—Medical Officer for the North West District: £40 p. ann.

SLOUGH URBAN SANITARY DISTRICT—Medical Officer of Health.

STOW-ON-THE-WOLD UNION—Medical Officer for the Workhouse: £15 per annum, and the Longborough District. £35 per annum.

STRATFORD-ON-AVON UNION—Medical Officer for the Workhouse: £40 per annum.—Medical Officer for the Welford District: £50 per annum.

SUSSEX COUNTY HOSPITAL, Brighton—Dispenser: £100 per annum, and meat luncheon. Applications, 20th instant, to Arthur Veysey, Secretary.

TARBOLTON, Ayrshire—Parochial Medical Officer and Public Vaccinator: £50 per annum. Applications, 17th instant, to John M'Master, Inspector of Poor.

TORBAY INFIRRMARY, Torquay—Dispenser: £50 per ann., board and lodging.

WEMYSS, Fifeshire—Parochial Medical Officer, East District.

WESTMINSTER HOSPITAL—House-Surgeon. Applications, 24th instant, to F. J. Wilson, Secretary.

WEST NORFOLK and LYNN HOSPITAL—House-Surgeon and Secretary: £80 per annum, board, and apartments. Applications, 11th instant, to the Weekly Board.

WEYMOUTH UNION—Medical Officer for the Abbotsbury District; £60 p. ann.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Arbuckle, Hugh W., M.D., appointed Medical Officer and Public Vaccinator for the Stainforth District of the Thorne Union, *vice* Wm. A. Goodworth, Esq., L.S.A., deceased.

*Buchanan, Walter, M.R.C.S., appointed Public Vaccinator to the Second District of the Medway Union, *vice* J. J. Ely, Esq.

*Duncan, A. James, M.D., L.R.C.S.E., appointed Attending Physician to the Dundee Royal Infirmary, *vice* Dr. Miller.

Letters, Patrick, M.B., C.M., appointed Surgeon to the Middle Dispensary District, Dundee Royal Infirmary, *vice* Dr. Duncan.

Macewan, David, M.B., C.M., appointed Attending Surgeon to the Dundee Royal Infirmary, *vice* A. C. Campbell, M.B., who retires by rotation.

*Miller, J. W., M.D., L.R.C.S.E., appointed Consulting Physician to the Dundee Royal Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

MARRIAGES.

Banks—Elliott.—At Christ Church, Liverpool, on July 2nd, William Mitchell Banks, F.R.C.S., 28, Rodney Street, Liverpool, to Elizabeth Rathbone, younger daughter of John Elliott, Esq., Aigburth, Liverpool.

Fleming—Eno.—At the Parish Church, Winlaton, on July 8th, J. N. Fleming, M.D., Newcastle-upon-Tyne, only son of Joseph Fleming, Papcastle, Cumberland, to Laura, eldest daughter of J. C. Eno, Beda Lodge, Blaydon-on-Tyne, near Newcastle.

Woolhouse—Odling.—On July 2nd, at Trinity Church, St. Marylebone, by the Rev. W. Cadman, M.A., Frederick Woolhouse, M.R.C.S., of Sheffield, to Ellen, youngest daughter of Francis Odling, Esq., Devonshire Street, Portland Place.—No cards.

DEATHS.

Bonthron, Christopher Campbell, L.R.C.S.E., at Buckhaven, aged 28, on June 26th.

*Douglas, Archibald, M.D., F.R.C.S.E., at 8, Clifton Place, Hyde Park, aged 57, on June 25th.

*O'Connor, T. J. H., L.R.C.P.Ed., at Heyworth Street, Everton, Liverpool, aged 34, on June 19th.

Pedgrift, Robert, Esq., Surgeon, at Loddon, Norfolk, aged 73, on June 22nd.

Walker, Herbert John, M.R.C.S.E., of Brook House, Sheffield, at Ambleside, Windermere, on July 2nd.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
FRIDAY.........	Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

DR. ROGERS'S and Mr. Spencer Watson's letters are deferred.

ERRATUM.—In Mr. Lennox Browne's article, in the JOURNAL of June 27th, p. 828, line 28, for "abduction", read "adduction".

NOTWITHSTANDING that nearly every number of the BRITISH MEDICAL JOURNAL published this year has included a supplement of eight pages, and that one third more of original matter has been published this year in the BRITISH MEDICAL JOURNAL up to the present date than in any former year, we have still a considerable accumulation of manuscripts from town and country contributors. We would therefore especially ask our correspondents to compress, as much as possible, any communications with which they may favour us, with a view to their publication with the least possible delay.

AIDE-TOI, ET DIEU T'AIDERA.

SIR,—An anonymous correspondent in the JOURNAL for June 27th, inquires what the Poor-law Medical Officers' Association has been doing anent the Superannuation of Poor-Law Medical Officers Act, and lays down, rather too absolutely, I consider, the principles which should guide the Association in its labours. Now, I am not at all indisposed to admit that it would be very desirable, could we secure it in an amendment Bill, that all this writer requires should be sought after; but it should be borne in mind that so determined was the opposition of certain gentlemen in both Houses of Parliament, and so great was the apathy of the bulk of the Poor-law Medical Service, that it was only with extreme difficulty we succeeded in getting any measure passed at all. Indeed, the indifference of the medical officers, even of those who have since profited from the provisions of the Act, was to my mind most extraordinary; for not only did they not subscribe one farthing towards the expenses of the Association which was fighting their battles, although many of them had enrolled their names as members, but they did not even petition in its favour. A similar state of things prevails now. Although upwards of forty forms of petition have been sent out to members of the Association, only an eighth part has been returned to me; and not one single petition, to my knowledge, has been forwarded to the House from any gentleman outside our body, save from two dispensary physicians living in a remote part of Ireland. It therefore appears to me nearly hopeless to expect to do much for the benefit of a service when a large majority of its members, with stolid indifference, leave two or three of their numbers to fight their battles. No, sir, Jupiter only helps those who help themselves.

Having thus replied to your correspondent, permit me to inform your readers that our parliamentary champion, Dr. Brady, finding it impossible in the present session to bring in an amendment Bill with any reasonable prospect of carrying it, has very wisely refrained from presenting any of the petitions I have forwarded him, but intends to keep them all until next year. If your correspondent will in the meantime urge his own friends to petition, or if any one else care so to do, I refer them to the form you published in your issue of April 25th, page 563, and beg to tell them that all they have to do is to get their wives, sons, or daughters to copy it out fairly on one side of a sheet of foolscap paper; to sign their names, and to write in the appointment they hold; and, having done so, forward such petition by a halfpenny stamp to yours, etc., JOSEPH ROGERS.

33, Dean Street, Soho, June 30th, 1874.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Printing Office, 37, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

A PROVINCIAL FELLOW inquires how many papers were declared void, and in what manner, at the last election into the Council of the College of Surgeons of England. There were three; and, notwithstanding the very clear instructions, one had the *address* only of Mr. Hussey, instead of the name erased: the next had the name of Mr. Smith erased, leaving four instead of three candidates; the third, like Mr. Hussey's, had only the address removed, leaving in each case four candidates.

SLEEPLESSNESS.

SIR,—I shall feel indebted if any of your numerous correspondents can help me to the successful treatment of a case of prolonged sleeplessness. The subject is a clergyman, as he tells me, never overworked mentally, and to my own personal knowledge during the past twelve months he has been working almost as a relaxation. Secretion and excretion are normal. Chloral hydrate in doses of 30 to 60 grains gives rest for an hour or two; but that is all. I seek a radical cure, and have exhausted somewhat the *British Pharmacopœia*. At present, he is taking phosphate of zinc in three-grain doses, and shower baths, and is ordered to do without sedatives. In a few weeks I send him to a Hydropathic Establishment. He has only been about two years here (sea-side), where the air is strongly impregnated with ozone. Has this anything to do with it? I find he is better when inland. Hints for his guidance will be gladly received by one who seeks a remedy for an EXHAUSTED BRAIN.

DR. RADCLIFFE.

SIR,—I send for insertion in your JOURNAL an epigram on the celebrated Dr. Radcliffe, which I accidentally found in an old book in my possession. It may probably interest those who have read Dr. Jefferson's entertaining work, entitled *A Book about Doctors*. I am, etc., GEO. CHAS. COLES.

On a Dispute between Dr. Radcliffe and Sir Godfrey Kneller.

Sir Godfrey and Radcliffe had one common way
Into one common garden, and each had a key.
Quoth Kneller, " I'll certainly stop up that door
If ever I find it unlock'd any more."
"Your threats", replies Radcliffe, " disturb not my ease;
And, so you don't paint it, e'en do what you please."
"You're smart", rejoins Kneller, " but say what you will,
I'll take anything from you—but potion or pill."

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, July 6th; The Carlisle Patriot, July 4th: The Macclesfield Advertiser; The Shield; The Glasgow News; The Manchester Guardian; The Cork Examiner; The Sunderland and Durham County Herald; The Cork Constitution; The Blackburn Standard; The Berkshire Chronicle: The Brighton Daily News; The Dublin Evening Mail; The York Herald; The Kendal Mercury The Western Mail; The Bath Express and County Herald; The Pembrokeshire Advertiser; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The British Press and Jersey Times; The Brighton and Dover Daily Mail: The Torquay Directory; The Liverpool Daily Courier; The Chelmsford Chronicle; The Macclesfield Courier and Herald; The Royal Leamington Spa Courier; The Dublin Daily Express; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Sir H. Thompson, London; Mr. Alfred Haviland, Northampton; Dr. Balthazar W. Foster, Birmingham; M.D.Ed.; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. J. Hughlings Jackson, London; Mr. Wm. Douglas, London; Mr. Lawson Tait, Birmingham; Mr. E. Shelton Jones, Denbigh; Dr. Jelly, Madrid; Our Dublin Correspondent; Dr. C. Bell Taylor, Nottingham; Mr. W. Eassie, C.E., London; Dr. Joseph Rogers, London; Dr. Armstrong, Liverpool; Dr. T. Claye Shaw, Leavesden; Mr. F. W. Joynes, Loudon; Mr. G. E. C. Jackson, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Molony, Cambridge; Dr. Joseph Bell, Edinburgh; Mr. T. H. Bartleet, Birmingham; Dr. Farquharson, London; A Member of the Association; Mr. Arthur Jackson, Sheffield; F. W. R., Bath; Dr. George Johnson, London; Dr. Falconer, Bath: Dr. Seaton, Vienna; Mr. W. E. Burton, Bushey; Dr. A. W. Edis, London; Mr. Wm. Adams, London; Mr. Warrington Haward, London; Dr. Tomlinson, Aldershot; Mr. Birtwistle, Northwich; An Associate; Mr. Richard Gravely, Lewes; Dr. Cornelius B. Fox, Chelmsford; Mr. W. Spencer Watson, London; Mr. French, London; Professor Porter, Forest View; Dr. J. B. Pettigrew, Edinburgh; Dr. Grabham, Pontefract: Our Paris Correspondent; Dr. Arbuckle, Thorne; Mr. T. F. Sanger, Seaford; Dr. Tilt, London; Mr. Jeaffreson, Newcastle-upon-Tyne; Mr.. Prue, Netley; Mr. T. M. Stone, London; Dr. Kelly, Taunton; Mr. W. J. Barkas, Newcastle-upon-Tyne; Mr. Eastes, London; Mr. M. M. Bradley, Jarrow-on-Tyne; Mr. W. E. Poole, London; Dr. Duncan, Dundee; Dr. W. Buchanan, Chatham; Mr. W. Fairlie Clarke, London; Mr. Ernest Morgan, Ventnor: Dr. Turner, Keith; Our Indian Correspondent; Mr. W. C. Garman, Wednesbury; Mr. H. W. Coleman, Leeds; Mr. Haworth, Filey; Mr. Lowe, Crewe; Mr. C. F. Maunder, London; Dr. T. L. Brunton, London; Dr. Atkinson, Philadelphia; Dr. Smart, Haslar; Dr. C. West, London; Our Glasgow Correspondent; etc.

BOOKS, ETC., RECEIVED.

On the Structure of Cancerous Tumours, and the Mode in which Adjacent Parts are Invaded. By J. J. Woodward. Washington: 1874.

Clinical Aspects of Syphilitic Nervous Affections. By T. Buzzard, M.D. London: J. and A. Churchill. 1874.

CLINICAL LECTURE
ON
A CASE OF HEMIPLEGIA.*

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,
Physician to the London Hospital, and to the Hospital for the Epileptic and Paralysed.

Lecture I.

In every case of hemiplegia, the important medical question is, How comes the patient to have that symptom? We must not dwell with exaggeration on the symptom itself; we must examine very carefully the patient who presents it. We ought never to lose sight of the fact that, in the majority of cases, nervous symptoms are results of old and slowly developed changes. Although a man may tell us that, on the day on which he became paralysed, "he never felt better in his life", we examine his heart, arteries, and indirectly his kidneys. In many cases, we discover evidences of long standing disease in some or all of these parts. Slow changes have been going on throughout him; and all that may have happened on the day the hemiplegia occurred was blocking up of an artery—only the small event that blood clotted on the roughened interior of a cerebral artery (thrombosis). But that artery—his arterial system, indeed—may have been years in preparation for such an occurrence. Do not take a nervous view of nervous diseases. An examination of the patient altogether, and a careful inquiry into his individual and family history, are the things of most importance. The patient's specially nervous symptoms, such, for example, as aphasia and hemiplegia, are, *from a medical point of view*, very often of less consequence than his general clinical state. Do not confound the two things, physiological interest and clinical importance. Aphasia is very interesting as a symptom; but the important thing is to obtain a clear knowledge of the bodily state of the person who presents that symptom, and to find out how he comes to have it. Nay: not how he comes to have this or that symptom, but how it was that one of his cerebral arteries was blocked up or ruptured. These are the pathological processes almost always underlying aphasia. Indeed, most nervous symptoms are not directly of nervous origin. The most important and most common of them are of arterial origin: an artery bursts, and the escaped blood tears up a nervous centre; or an artery becomes blocked up, and a nervous centre softens. Nervous organs very often indeed suffer because their arteries are faulty. From a medical point of view, it is of the utmost importance to recognise this. From this standpoint, we see that things so different as hæmorrhage from the nose, hæmorrhage into the retinæ and into the corpus striatum, have often the very same pathological significance; they are all arterial matters. These distinctions are not to be lost sight of in the consideration of heredity, as we shall see when we come to speak under the head of "Softening of the Brain".

I will not dwell on the constitutional state in the case of the subject of this lecture. Indeed, this patient's constitutional state was fair. He was young. Although he had aortic disease, he was not so much a diseased man as a locally damaged man. Why he had aortic disease, I could not ascertain. He had not had rheumatic fever, which, by the way, more often damages the mitral valves. Nor had he been subject to very hard work, involving strain—a common cause of, or factor in producing, aortic disease. Before leaving this part of the subject, I would remark that many of my patients who are hemiplegic, and who have valvular disease of the heart, have no serious heart-symptoms. This is worth stating, as it shows how accidental, so to speak, hemiplegia from the process of embolism may be. A man suffers hemiplegia, not *because* his circulation is defective, but because there are vegetations on the valves of his heart which can be detached. It is true that his valves may be so bad, that they do not fit; but there is compensation from hypertrophy of the heart's muscular walls, so that his circulation continues efficient. A patient begins to suffer from, to be incapacitated from, valvular disease, when the compensating hypertrophy fails. Do not forget this. A person will become hemiplegic who is, except for vegetations on his valves, in apparent good health. There may occur embolism of a cerebral artery, and thence cerebral softening and local paralysis, without any premonitory symptoms, nervous or circulatory. At the most, the patient may have been a little short of breath, almost certainly a little so, if he have mitral incompetence. Of course, embolism may happen at any stage of heart-disease. It may occur when a patient is slowly dying of the direct effects of heart-disease, but at any stage it is a sort of accident; and, I repeat, it often happens before there are any important heart-symptoms, and when the patient feels quite well, and is well, except for what is practically a latent mischief.

In all nervous cases, it is best to study first the Symptoms which Localise. In the case the text of this lecture, there are two localising symptoms, Hemiplegia and Affection of Speech. A patient does not understand how it is that, when he is paralysed, we pay attention first and most to his heart, arteries, and urine. It relieves his mind to enter fully into the symptoms which trouble him. We shall in this lecture discuss the hemiplegia first, and from this and the loss of speech we shall find out where the lesion is.

Hemiplegia is a symptom of loss of function of one lateral half of the motor tract. As this tract may be damaged at different levels, there are several anatomical varieties of hemiplegia. Thus there is hemiplegia from damage of one lateral half of the spinal cord, or of the pons Varolii, or of one of the crura cerebri; but I speak in this lecture of hemiplegia resulting from damage to one of the two highest divisions of the tract—the thalamus opticus and corpus striatum. This is the commonest kind of hemiplegia; it is, indeed, the commonest kind of paralysis. It is the most important of all nervous symptoms. It is that paralysis which is found with affections of speech; after convulsive seizures (it is then called *epileptic* hemiplegia); often with cerebral tumour; very often as a consequence of cerebral hæmorrhage, or of local cerebral softening. It will occur at all ages; we find it in infancy (although it is not "infantile palsy"), in adults, and in very old people. I could give more reasons for saying that it is the most important of all nervous symptoms. Without a thorough knowledge of this symptom, the student is not fit to begin the *scientific* investigation of the more difficult nervous diseases, epilepsy, chorea, affections of speech, etc. We shall speak of it as the Common Form of Hemiplegia. It depends on *destruction* of the corpus striatum or of the optic thalamus. Observe the manner of statement. It is not scientifically exact to speak of it as a symptom of softening, or of cerebral hæmorrhage, or of tumour; for it is a symptom of destruction of the corpus striatum by any pathological process whatever. I should say "destruction of function", because, although in most cases there is actual breaking up of nerve-fibres and cells, yet in one clinical variety of hemiplegia there is only a temporary exhaustion of the nerve-fibres and cells of the corpus striatum. This is the epileptic hemiplegia of Dr. Todd. The following is my speculation* as to its mode of causation. There is in the convulsion a strong discharge of grey matter of convolutions through the corpus striatum to the muscles convulsed. If the discharge be excessive, the corpus striatum is left temporarily *hors de combat;* its nerve-fibres and cells are paralysed in the same way, I suppose, as a nerve can be experimentally paralysed by excessive artificial stimulation.

So, then, although it is true that cerebral hæmorrhage and softening are by far the commonest causes of hemiplegia, they are only some of the pathological processes which lead to destruction of the corpus striatum. Other processes are tumour and the temporary exhaustion just spoken of. The distinction is of more practical moment than appears at first glance. We shall not have clear views if we confound the functional change (here loss of function) with the pathological processes which lead to it. This confusion is more particularly to be regretted in the other class of functional changes ("instability"), as in chorea, epilepsy, etc.

The damage to the motor tract will vary in *quantity*. For example, there are clots in the corpus striatum of all sizes, from one of the bulk of a pea to one of the bulk of a small orange; there are roughly corresponding amounts of damage to the nervous centre. Hence the degree of hemiplegia resulting from clot, or from other kinds of destroying lesions, will vary exceedingly. It will vary from a slight and transient weakness of which the patient complains, but which examination almost fails to demonstrate, to complete and permanent hemiplegia. Here let me warn you not to conclude that a patient's hemiplegia necessarily depends on "functional" changes (in the sense that there is no structural alteration) because the paralysis was slight and transitory. Such slight and transitory palsy may depend on permanent although limited destruction by a very small clot, or softening from plugging of a very small artery. I shall afterwards prove to you that patients recover from hemiplegia notwithstanding that the paralysing lesion is not restored.

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* On page 804 of last volume, will be found a report of the case which is the text of this and subsequent Lectures.

* In this Journal, February 7th, "After Effects of Epileptic Discharges", I have applied the principle of this speculation to the explanation of epileptic mania. The commonly received explanation of epileptic hemiplegia is, that the paralysis is a consequence of cerebral congestion, or actual extravasation in the brain, resulting from impeded respiration in the paroxysm. But I submit that this explanation is negatived by the fact, that absolute palsy of a part will follow a limited epileptiform seizure in which there has been no trace of loss of consciousness, and nothing to indicate obstructed respiration.

I wish next to insist that the degree of paralysis in hemiplegia does not vary only with the *quantity* of damage. Introducing a more general term, I say that it varies with the Gravity of the lesion. There are two factors in the gravity of a nervous lesion; there is not only the quantity of nerve-tissue destroyed, there is also the suddenness with which the destruction is effected. For example, to take the two extremes, a large tumour and a large clot *can* differ, in that they destroy and squeeze different amounts of a nervous organ; but they *must* differ, in that one destroys and squeezes very slowly, and the other very rapidly. So far as the production of nervous symptoms goes, clot and tumour, and also the several other pathological processes I have just been mentioning, differ chiefly as they differ in destroying slowly or suddenly. For the present, I shall ignore the pathological processes, and speak of "destroying lesions", or losses of function, *of different degrees of gravity.* One is justified in doing so, because there is nothing, or next to nothing, in hemiplegia, diagnostic of any *pathological process*. Hemiplegia from local softening of the corpus striatum does not differ from hemiplegia caused by clot in the corpus striatum; nor—and this I would impress upon you by repetition—does the hemiplegia from either of these changes differ from that sometimes found after a severe convulsion. It is very true that *the mode of onset of hemiplegia* is an exceedingly important element in the diagnosis of the pathological processes causing the symptom, as I shall tell you later on; but the hemiplegia itself is not.

We shall make three degrees of hemiplegia. The effects of a lesion of the third degree of gravity are, I believe, paralysis of both sides of the body. It is not then, strictly speaking, a degree *of* hemiplegia, but a degree of paralysis *beyond* hemiplegia. We shall, at any rate, consider the effects of lesions of three degrees of gravity in the two highest divisions of the motor tract. If it assist your imagination, you can think of clots of three different sizes, or of softenings from blocking of arteries of three different calibres. It follows from what has been said, that these degrees are arbitrary; but they are convenient. There are from lesions of different degrees of gravity, all degrees of symptoms, from slight one-sided numbness to universal powerlessness in deep coma (apoplexy). We begin with the first degree. What I call the first degree is that degree which you most often see; it is what we commonly call "hemiplegia" without any qualification. It is the degree our patient suffered from. We shall pay most attention to it.

First Degree of Hemiplegia.

As I have often told you, it is a good plan to examine a paralytic patient as it were geographically—from the first cranial nerve to the last, from his head to his feet. But to-day we shall pick out for remark the parts which we know to be affected in the first degree of hemiplegia. The parts affected are the face, tongue, arm, and leg, all of one side—the right side in our patient. Do not forget that all the paralysis there is is on the side of the body opposite the cerebral lesion. I mention this particularly, because in a justly esteemed work on physiology, it is said that the face is paralysed on the same side as the lesion, and therefore on the side of the body opposite that on which the arm and leg are paralysed. Now this sort of cross-paralysis only occurs in those lesions of one side of the pons Varolii, where the facial nerve is damaged in the pons *before* its decussation. In the form of hemiplegia we are considering, the lesion is anatomical miles above the decussation of the facial nerve, as well as above that of the limbs. The left will be the side of the brain diseased in our patient, as the right side of his body is paralysed.

Face.—Of the facial palsy in hemiplegia of the first degree, remember (1) that some is nearly always discoverable at least soon after the onset; (2) that it is slight, and often very transitory; (3) that the muscles affected are those supplied by the portio dura (facial) nerve; (4) that the facial palsy is, as I have just insisted, on the same side as that of the limbs; (5) lastly, observe that the palsy is not *evenly distributed* over the muscles supplied by the portio dura nerve. The last remark is important. If the *trunk* of the portio dura nerve be diseased, the palsy *is* evenly distributed over the face. Thus, if the disease be such that the nerve is destroyed, the face is considerably paralysed all over; but if part of the trunk only be destroyed, we do not find palsy of parts of one side of the face, but partial paralysis all over the face. (Of course, in wounds of the face involving twigs on the peripheral side of the main trunk, there may be paralysis of limited parts—as, for example, of the orbicularis palpebrarum.) Now, in the facial palsy of the common form of hemiplegia, the lesion is far above the trunk of the portio dura; it is in a nerve-centre—the corpus striatum, for example—and this is very far above the decussation of the facial nerve in the pons. The palsy from disease of the corpus striatum is not evenly distributed; the stress of it falls on the cheek, and although the orbicularis palpebrarum is affected, it suffers comparatively little. The patient can always shut his eye: it suffers so little that in many chronic cases we observe no difference in the closure of the two eyes, or only a trifling difference in the firmness of the closure when the patient tries to close his eyes tightly.

When our patient was asked to "show his teeth", the upper lip drew up to the left side; he could not close his right eye so firmly as the other, and the brow on the right side was less wrinkled on frowning. There was thus paralysis of muscles supplied by the portio dura nerve, or rather imperfect paralysis—paresis—the cheek suffering most. The facial paralysis in this case was more extensive and decided in range than is usual in hemiplegia, regard being had to the degree and continuance of paralysis of the arm and leg; I mean that the muscles (orbicularis palpebrarum and occipito frontalis) suffered more than is common. I believe this to be most often found in cases of hemiplegia from embolism; it is a fact of some slight empirical value in the diagnosis of softening by embolism from clot as a cause of hemiplegia.

Tongue.—In hemiplegia the tongue suffers very little; there is slight deviation on protrusion, and the turning is to the side of the body paralysed. It is one of those things which educated malingerers overdo. It is well to contrast the paralysis of the tongue from lesion of the corpus striatum with the paralysis of this part from lesion of the lingual nerve-trunk or its nucleus. In both cases, the tongue turns when protruded to the paralysed side. In hemiplegia, however, the tongue remains plump, and feels firm on both sides; but in cases of paralysis of one-half the tongue from disease of the lingual nerve-*trunk*, or of its nucleus, the tongue on the affected side is flabby, looks wasted, and after a time does waste. I have shown you several cases of this kind. Such a degree of palsy of the tongue never occurs with hemiplegia, so far as I have observed—that is, as part of the hemiplegia; it necessarily, I believe, indicates disease of the ninth nerve, or of its nucleus in the medulla oblongata, and on the same side as the palsy. The lingual palsy in hemiplegia is due to lesion very far above the medulla oblongata, and, as in the case of the facial palsy in hemiplegia, the lesion is far above the decussation, and on the opposite side of the brain. Paralysis of the tongue in hemiplegia differs as much from paralysis of the tongue due to lesion of the trunk of the ninth nerve, as does the facial palsy in hemiplegia from paralysis of the face due to lesion of the trunk of the portio dura nerve.

Remarks on Defective Articulation in Cases of Hemiplegia.—I must now speak of the influence of these trifling palsies on our patient's talking. He had loss of speech, or, as it is commonly called, aphasia. So far from causing loss of speech, they do not cause any considerable defect of articulation. I shall later on have to speak of affections of speech; just now, I speak of articulation only. You would not, perhaps, expect that such slight palsies of the face and tongue as we have just been describing would cause any great trouble in articulation. But I have good reasons for wishing to speak to you of the slight, the insignificant, effect on articulation of the paralysis of the face and tongue in the hemiplegia of adults. I will first, however, speak of cases of lingual and facial palsies, far severer than we ever see them in hemiplegia. Let us take, for instance, a case where the face is perfectly paralysed on one side, in disease of the *trunk* of the portio dura nerve, for instance, and let us suppose that there is also palsy and partial atrophy of the tongue on the same side. In such a case, the patient's articulation is very much less affected than you would, from theoretical reasoning, suppose. It is so little affected, that you have no difficulty in understanding all that he says. *A fortiori*, then, the trifling and often transitory palsies of the articulatory organs in hemiplegia can have little effect in impairing articulation; there is some transitory muffling soon after the attack, not from loss of power in the lips and tongue, but from *sudden* loss of power in these parts. Let me mention another fact about paralysis of the articulatory organs. A patient may articulate all the labials when he has absolute paralysis of all the superficial muscles of the face, including, of course, the lips. It is paralysis of the palate (on both sides) which interferes with the labials. It is very important indeed to bear such facts in mind. You would never, it is true, put down loss of speech or mistakes in words to such slight palsies of the face and tongue as occur in hemiplegia. But there is a kind of difficulty of articulation in some cases of *right* hemiplegia which, if you were very careless, you might put down to the slight paralysis of the face and tongue. This difficulty may be called ataxy of articulation, because, although the patient articulates very badly, he can move his lips, tongue, and palate apparently well in all other operations. See the seeming contradiction. Never forget that there occurs, from disease of one side of the brain, a great difficulty of articulation, in which we discover only the most trifling paralysis of parts of the articulatory organs; so trifling is the discoverable paralysis, that it gives no explanation of the diffi-

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culty of articulation; the patient's talk is harder to be understood than that of a patient who has much obvious paralysis of the tongue, face, and palate on one side, and of one vocal cord from disease of the medulla oblongata. Be the explanation what it may, the facts are so.*

The difficulty of articulation in cases of disease of the medulla oblongata is a "thick" drunken-like talk; the articulation which is called ataxic is a sort of gabble. But there is an exceptional statement to be made; there is a thick, drunken-like talk with hemiplegia in cases of lesion of both sides of the brain. Let me explain. A patient has hemiplegia of the right side and gets well, talking well; he has next hemiplegia of the left side, and his talk is thick. This is because there is really a bilateral lesion; there is a recent one in the right motor tract to cause the left hemiplegia, and there is an old one in the left motor tract which caused the right hemiplegia. There is often, in these cases, some difficulty in swallowing, too. Later on, when speaking of Broadbent's hypothesis, I shall show you how it is that this thick speech occurs from a lesion of both motor tracts.

The ataxy of articulation without obvious, or with insignificant, paralysis of the articulatory muscles will remind you of Duchenne's ataxy of locomotion without obvious paralysis of the locomotor organs. They are both "disorders of co-ordination". But to give this name to them is not to explain them, or it is an explanation which is simply verbal, and really explains nothing at all.†

I shall have more to say of articulatory ataxy when I come to consider defects of speech.

Now we come to something puzzling. I told you that the lingual palsy, in cases of hemiplegia, was very little. But our hemiplegic patient could not put out his tongue when he tried, and thus it might seem that, in this case, the organ was perfectly paralysed. Nevertheless, there was really no such absolute paralysis as there seemed to be. The tongue moved quite well in such automatic or partly automatic processes as eating and swallowing. This state of things is frequently found in cases of loss of speech (aphasia). Now bear in mind that the inability is not to be explained away by saying that the patient does not understand what is asked of him. He opens his mouth, and, indeed, may move his tongue about in his mouth, drawing it back, for instance; he will even put his fingers in his mouth to get it out. After failure to protrude his tongue, by effort, he may put it out, to use a vulgarism, in a "promiscuous manner", as, for example, to catch a stray crumb. We may get it out now and then by a trick. Mr. Louis Mackenzie showed me that one of my aphasic patients, who could not put out her tongue when we asked her, would put it out to lick her lips after taking a drink. Speechless patients have occasional difficulty in doing other things they try to do when told, as you will find to your trouble in some patients when, whilst using the ophthalmoscope, you tell them to look in certain directions.

It would have been a gigantic blunder to put down our patient's inability to talk to palsy of the tongue—to mistake loss of speech for loss of power to move the tongue. A careless investigator might do this in a case of *temporary* loss of power to talk, with hemiplegia, as, for example, in a case of temporary loss of speech after a convulsion. A patient may lose speech wholly or partly for only an hour or two, or even for a shorter time, after some convulsive seizures (right-sided). There is an "epileptic aphasia" as well as an "epileptic hemiplegia". If, as is likely, the patient could not then put out his tongue, you might, were you not warned, be deceived; you might suppose the affection of speech was owing to lingual paralysis. Let me show you further how you may discover that the tongue is really not paralysed in cases of loss of speech. Observe that although the rest of the palsy (face, arm, and leg) is on one side, the tongue, as in our patient, "pretends" to be paralysed on both sides. Again, in nearly all cases which we call *loss of speech*, there is power to utter some word or words, if not to *use* those words in speech; occasionally it is a jargon only. Our patient could utter the words "yes" and "no" *quite well*, and he could not have done so had his tongue been as much paralysed on both sides as, so to speak, it pretended to be. But in a few cases of loss of speech, soon after the attack the patient is unable to utter any word, syllable, or jargon, and then this kind of test would not apply. I have had a patient under my care recently who has been speechless twelve months, who cannot utter any word or syllable; however, he makes a noise, which is possibly an indistinct "aye" or "oh". We find, however, that the patient who cannot put out his tongue has the use of that organ, and of his lips and palate in all other processes than speech. The patient who cannot *speak* because his brain is diseased can swallow well, but the patient who cannot *talk* because his tongue is paralysed cannot swallow well. There is from swallowing a very obvious difference. We are constantly swallowing our saliva; the patient whose tongue is paralysed cannot do this, hence he carries his pocket-handkerchief in his hand, because his saliva dribbles.* There is still another test—viz., that the patient who is unable to talk, simply because he cannot move the muscles of articulation from actual palsy of them, can write, *i.e.*, can express himself in writing. In short, such a man *can speak*, for we must speak internally before we write. But the patient who is properly called speechless has, I consider, neither external nor internal speech; obviously, he cannot talk aloud; he never does; but he cannot speak anyhow, not even to himself, or he would write what he speaks to himself. The speechless man may sign his name; he may also copy writing. There is no reason why he should not, as this does not require speech. He cannot read what he has copied. Our patient had never learned to write, and thus this test was inapplicable in his case.

Let us put some of these diagnostic points together in another way. If you were told of a patient who could not "talk", but who could swallow well, and could not write, you would say, "This so-called inability to *talk* is really loss of *speech* from disease of the brain. If you were told that a patient who could not *speak*, but could write well, and yet could not swallow well, you would say that strictly his defect was not loss of speech, but *loss of power* to move his articulatory organs. You may diagnose such cases from a distance; the patient carries his pocket-handkerchief in one hand, and a small slate hangs from his button-hole. What are we to say of the tongue, which the patient cannot put out when he tries hard to do so? He has lost the most voluntary or most special movements of it. This may appear to you simply repeating in technical phraseology that he cannot put it out when he tries. But at all events he has lost only some of the *movements* of it, its muscles serving well in other movements: he has lost the most special movements of it. We shall see that it illustrates a principle.

There was, doubtless, in our patient slight actual paralysis of the tongue, such as in cases of hemiplegia, without loss of speech, causes deviation on protrusion. Plainly, this could not be demonstrated, since he could not put his tongue out. The slight palsy, if it existed—as no doubt it did—was drowned, so to speak, in the larger loss of voluntary power over the whole organ. When, as usually happens in cases of loss of speech, a patient becomes able to put out his tongue, we may see a slight deviation of it.

So far, then, we have found that there is paresis of the face and tongue on their right side. These palsies, I repeat, are usually slight, and frequently transitory.

[*To be continued.*]

CLINICAL MEMORANDA.

CASE OF OCCLUSION OF GALL-BLADDER.

On June 20th, I was summoned suddenly to see Mary R., aged 29, who had been confined three weeks. On my arrival, I found her to be dead. She had been under my care some weeks previously to her confinement, suffering with pleurisy and anasarca, which yielded to ordinary treatment. On performing the *post mortem* examination thirty-six hours after death, we came to the conclusion that the immediate cause of death was serous apoplexy of a most marked character. On examination of the abdominal viscera, the liver was found to be enormously enlarged, to the weight of nearly ten pounds; the structure was tolerably healthy. The gall-bladder was filled with calculi, to the number of two hundred and thirty-seven; the aggregate weight being 420 grains. The calculi were an almost exact representation, in size, appearance, and colour, of grains of Indian corn, rounded on their outer surfaces next the gall-bladder, and flattened internally by their compression and packing. There was no form of jaundice. The ductus communis choledochus was patent; and the circulation of bile in the gall-bladder could only have been carried on in the interstices of the outer surfaces of the calculi. During my knowledge of the case, there was no history of any dyspepsia, constipation, or hæmorrhoids.

G. E. Corrie Jackson, L.R.C.P.E., M.R.C.S.Eng.,
Medical Officer, Westminster Union.

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* In some cases of ataxic articulation, there is disease of one side of the pons Varolii.

† I have long held that both in locomotor ataxy and in articulatory ataxy there is really a paralytic condition; there is, according to my hypothesis, weakening, not of muscles, but of some of the most special movements of the locomotor or articulatory series. For example, I believe that in locomotor ataxy there is first weakening of that movement in which the peroneus longus is the muscle chiefly concerned. The disorderly walk is explainable on the supposition that there is over estimate of the most special movement, and, consequently, over-development of associated movements—a state of things strictly comparable to that attending palsy of an ocular motor nerve ("erroneous projection" and "secondary deviation").

* I must say, however, that this dogma does not apply to children who have no speech, or whose speech is defective, from damage to the brain in early infancy. There is often pseudo-salivation in these cases.

PROGRESS IN MEDICINE:

Being the President's Address, delivered at the Annual Meeting of the South-Eastern Branch, June 25th, 1874.

By GEORGE F. HODGSON, M.R.C.S.Eng., Brighton.

GENTLEMEN,—I must commence by acknowledging the honour you have done me in placing me here, and in thanking you for it; although I am aware that my position is rather the result of circumstances than of any special fitness for it on my part. However, I will gladly do my best during the year of office to justify your decision. Secondly, I have, on behalf of myself and my resident fellow members, to bid all the rest of you a most hearty welcome to Brighton. We hope that you will thoroughly enjoy yourselves, and that the opportunity may prove one for mutually reviving and strengthening old friendships, and creating new ones. I must say a word in reference to Mr. Garraway's remarks. I think he is a little mistaken in stating that the great prosperity of the Branch depends so much upon my past exertions.* I must beg him to bear in mind that I found everything in first-rate order when I took office. My predecessor, Mr. Thomas Martin of Reigate, the first honorary secretary of the Branch; his son, Mr. Peter Martin; and after him Dr. Holman, were all men of marked ability; and the affairs of the Branch had ever been conducted in the most admirable manner. I had nothing to do but follow suit.

During the decade that has elapsed since the last assembling of the members of the Branch here, the town has undergone many improvements. Some of its now leading features have sprung into existence since then. Amongst those, I may mention the magnificent Aquarium, the West Pier, the Free Library and Museum, and, as interesting to some of us, the new Workhouse Infirmary, the last being, indeed, just out of the town, but yet open to the inspection of any of you, through the kindness of its surgeon and our own fellow member Mr. Richards. The County Hospital (with its 150 beds, besides relieving out-patients), equal to any of its class in the kingdom, is always worth a visit. A new feature there is a large ward entirely for children, to which the trite saying, "Better late than never", is appropriate; though had it only been instituted a few years ago, it would have saved the Brighton public the supposed necessity of having to support a separate hospital for children. Other medical charities in the town are the Brighton and Hove Dispensary (reported to relieve between 7,000 and 8,000 patients annually), the Lying-in Institution, the Infirmary for Diseases of the Eye, an Asylum for the Blind, another for the Deaf and Dumb, and others for Orphans, besides numerous "Homes" and "Refuges".

Taken collectively, these at first sight seem monuments of good, and unquestionably great good does come of them. But, in common with similar institutions in most other parts of our country nowadays, the real intentions of the chief ones are much exceeded, and true charity thereby greatly abused. Indeed, this grievance of indiscriminate charity is probably nowhere more rife than in Brighton. A Provident Dispensary has had a languid existence here for nearly forty years, and recently it has shown more signs of life. Let us hope that it may soon develope itself, and come more to the front, and so help, in connection with an increase in the number of parish surgeons—to at least reduce the abuses of the so-called charities, and put matters on a more wholesome footing. But to this end, other things must come about first: the public must awake to a better understanding of the subject, and members of the medical profession must be less precipitate than hitherto to offer their services in such an indiscriminately gratuitous manner. That on really charitable occasions members of our profession should ever be ready to render their help, is what all of us must approve of and practise; but it is not good either for the public or the profession that so large an amount of unpaid service as has latterly become the custom should be continued. Possibly, if all had to pay their medical attendants, fewer of the latter might be found necessary than now seems the case, viz., 135. With a population of 108,000, this ratio of doctors is unusually high, I believe. Anyhow, it differs much from what the old *Medical Register* of 1799 tells us prevailed then, viz., that, for a population of over 6,000, two medical men sufficed, who were Mr. Isaac Lowdell and Mr. Thomas Gibbit. The *Register* for 1783 gives the names of Messrs. Lowdell and Son and Mr. Kipping, and adds this note:—"Dr. Pepys of London attends here during the bathing season."

Brighton is blessed with an abundant supply of water, which it procures from two wells, situate about three miles apart, in valleys among the Downs, and of such purity as to need no filtration or other treatment whatever beyond the bare hydraulic processes necessary for raising it from its bed and distributing it to our houses, etc. Nature has favoured us, too, with a salubrious atmosphere, which fairly good drainage, natural and artificial combined, has prevented our refuse from tainting to any prejudicial extent of late. Many people predicate that a better time for the doctors is at hand, now that the large intercepting sewer is being brought into use. This drain is nearly seven miles long, and about the same number of feet in both vertical and transverse section for the greater portion of its length. It is planned to deliver the entire sewage of Brighton and Hove into the sea, four-and-a-half miles eastward of where we are now sitting. Unfortunately, its fall is only one yard in each mile, which, it is apprehended by some, will prove insufficient. The Town Council, with wise forethought, have bought up the waterworks, wherewith, in the event of this huge *cloaca* failing to evacuate itself, they may have the means of plying it with copious enemata. Let us hope that, if necessary, some other expedient may be devised, so as to avoid the spilling of so much good water upon bad. Possibly some of the briny contents of the vast natural reservoir in front of the town might be utilised for the purpose.

It has been customary on these occasions, for your President to give more or less of a *résumé* of such professional topics as may have excited special interest during the past year. I do not propose to detain you for this purpose:—1. Because it will be very much better done at our parent annual meeting at Norwich, in August; 2. Because our Branch is so organised, that such matters are being discussed by us all the year round at our district meetings; and 3. Because the few hours you have here may be much better spent in enjoying the sea-breeze. Nevertheless, that I may not be open to the reproach of not making any attempt to advance professional knowledge, I will allude briefly to three subjects, which have made some impression on my mind.

Many invalids come to Brighton to convalesce (sometimes to die). Amongst such as come under my notice, one every now and then turns up who has been mercurialised, and that for non-specific disease. It is against the perpetuation of such a mistake that I wish before this considerable assemblage of medical men to protest. Of course, in common with all the rest of you who have attained to middle life, I was trained by my teachers to consider mercurialisation as indispensable in the treatment of all acute inflammations. The classical lectures of Dr. Watson forcibly impressed this upon us, and, in equally powerful and elegant language, Dr. Latham's clinical lectures made it a *sine quâ non;* but these were about the last physicians of celebrity who so taught. About fifteen years back, Professor Bennett of Edinburgh and the late Dr. Todd of London both taught and published the uselessness and the banefulness of this treatment, in a manner that could not be refuted. Dr. Habershon and the late Dr. Tanner (a pupil of Todd's) followed with valuable publications in the same direction; and now, I suppose all our leading physicians and surgeons are unanimous on the subject. Sir Thomas Watson himself has lived to acknowledge its soundness likewise. How is it, then, that some men still adhere to this old-fashioned and injurious practice? Four-and-twenty years ago, on account of a deep-seated affection of the eye, caused by overuse of books and microscope, I was treated by a famous oculist (Mr. Dalrymple) with a prolonged course of mercury, which seemed to render my eye worse instead of better, and certainly grievously impaired my general health. Consequently I became a ready disciple of Bennett and Todd, and ever since that time I have entirely abandoned the use of mercury in all inflammatory disorders, whatsoever organs might be affected; and, I may add, with an immensely more satisfactory result than previously. The cure of the disease has been surer and quicker, and the dreadful *anæmia* and prolonged debility, consequent on a long mercurial course, have been avoided. So recently as in the penultimate number of our JOURNAL, a gentleman narrates a case of general paralysis in a man, consequent on an injury to the head, which he says he "treated with mercury until the system was affected". On what grounds, I cannot understand.

I hope that you have been, or will be, interested in the collection of instruments. Thirty years ago, a reliable galvanic instrument was scarcely procurable, and the knowledge of how to use it was, perhaps, rarer. The instruments in the adjoining room fairly represent, I think, the apparatus of modern electro-therapeutics, save the absence of a plate or cylindrical machine for generating *frictional* (or Franklinic) electricity; but not many private medical men need that form of instrument. You may also perceive that there is no specimen of the magneto-electric machine, turned by a winch or by clockwork, which has been largely imported from America of late years, and sold in this country. They are being superseded by the Volta-magnetic machines, now supplied by all the makers, of such superior workmanship as to admit of their currents being delivered and graduated with excessive nicety. In addition to the last mentioned, most of us should also possess one form at least of the voltaic (galvanic, or "constant current") instrument, as it possesses therapeutical properties which the volta-magnetic does not. Excellent guide-books on this subject have been published by Dr. Russell Reynolds and Dr. Tibbits, and a larger treatise by Dr. Althaus. The medical staff of the National Hospital for Paralysis, in Queen Square, London, graciously invite members of the profession to visit their electrical room, which I can assure you, from having repeatedly availed myself of it, is worth your doing. When I state that by one or other form of electricity you may stimulate or soothe either nerve or muscle, restore lost voluntary movement, relieve pain, heighten flagging temperature, recall sensation, coagulate the blood, dissolve or slowly cause the absorption of tumours, increase the secretions, promote nutrition, or cauterise and destroy, I need not make any excuse for bringing this subject so prominently forward.

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* In leaving the Chair, Mr. Garraway had said that "the prosperity of the Branch was mainly due to the zeal and energy of Mr. Hodgson".

Of the instruments for treating diseases of the ear I will not say much, as I am afraid that not many of you will care for such a speciality. And yet they illustrate how that intricate organ has of late been unravelled, as it were, and its labyrinth and bony recesses made to yield up their intricacies. By the combined exertions of English, Continental, and American aurists within the last comparatively few years, great advance has been made in the pathology and diagnosis of aural disease, and its successful treatment has therefore correspondingly advanced. The galvanic instrument on that table is on the Daniell-Muirhead plan, and yields the most gentle and constant current procurable. Consequently it is well suited for aural application. It was made by Mr. Pickard, a mechanician at our railway works. It is time I should speak of ourselves—the Association.

Our Executive Council's report of the affairs of this branch during the past year will be read to you presently; but I cannot refrain from anticipating it with a word or two—mainly of congratulation. The good work which Dr. Parsons is well known to have done for East Kent district for several years, he is now repeating on a larger scale as honorary secretary and treasurer to the Branch. The Branch, therefore, continues to prosper. Six summers back, it numbered two hundred and fifty-five; now they are nearly as many again, viz., three hundred and seventy. Our Branch stands third in respect of numbers. The Metropolitan Counties Branch having six hundred and five members, and the Lancashire and Cheshire Branch four hundred and seventy. The funds of the Branch also accumulate. The balance in hand, six years since, was £35 odd; now it is £80, within a few shillings. I advert to the last point, because it will be for you to determine at this meeting whether this balance shall be diminished, and, if so, how; whether, by lowering our present annual subscription of four shillings, we shall gradually draw on this balance, and so use it for the purposes for which it has been subscribed; or whether a gift shall be made from it to some charity, especially the British Medical Benevolent Association. To solve this question to the general satisfaction of the Branch, will require your best judgment.

The parent Association has latterly progressed very remarkably in all ways. The recent change in the *locale* of the secretary from Birmingham to the office in London, where the main business of the Association is done, and the requirement that the whole of that officer's time should be devoted to the Association, have worked such a wholesome change that this year, for the first time since the death of Sir Charles Hastings the former treasurer, about eight years ago, the Committee of Council have the satisfaction of being able to state that the Association is not in debt to its printer. Moreover, there is every prospect that this sound financial condition will continue to prevail, and result in a handsome balance in hand annually, available for the prosecution of scientific research. The present number of members is 5,700, resident not only in all parts of the United Kingdom, but in nearly all countries, and we are united by our own weekly journal, which is so ably contributed to and edited, as to be in the van of medical journalism. What a source of power is here! The British Government is aware of it. The army, navy, and the Poor-law service are all getting to know it. The possession and the wielding of this power have a responsibility attached, which we must never forget either collectively or individually. Indeed, we are united in a calling most noble, not to say divine. This being so, how sad the reflection that is sometimes forced on one by a careless observation in regard to what our future will be. But of our future we need have no doubt if we follow in the footsteps of our Lord, who went about healing the sick. Would that the time for scientific men to be sceptics were gone by! Apart from revelation, it seems hard to suppose that after practising this high vocation, and enjoying these lifelong fellowships, we are to die like dogs, and be no more seen. But, my brethren, we know that such is not to be our end. Our calling, indeed (though noble it be), is only for time; but our brotherhood, if we will, and God helping us, may attain to a higher sort, yea, it may become hallowed and blessed and endure through all eternity.

MEDICAL AFFAIRS:

Being the President's Address, delivered at the Annual Meeting of the Northern Branch, June 30th, 1874.

By ANDREW LEGAT, M.D., South Shields.

GENTLEMEN,—You have been pleased to elect me to the high position of President of this the Northern Branch of the British Medical Association for the coming year.

The honour thus conferred upon me is, I hope, rightly appreciated, and if thanks, genuine and sincere, be any adequate return, I tender them to you most gratefully. I have accepted the chair from a sense of duty rather than of fitness; for, although my best efforts to further the interests and success of the Branch are placed at your service, a knowledge of my own unworthiness stands prominently before me, and causes me to fear that my shortcomings are more likely to occupy the foreground. I, therefore, beg that the kindness you have shown in placing me here may be extended to me in the discharge of my duties, and that I may rely on your generous support in my endeavour to sustain, so far as I can, the dignity of the office. I feel that I labour under a disadvantage of no ordinary character in following so closely your late excellent President, Dr. Heath, who occupies so distinguished a position as a surgeon in Newcastle and neighbourhood. Other men also, highly gifted, and with large opportunities within their reach, have gone before me, and have made it a somewhat difficult task to follow in their footsteps; and, when I think of them, my thoughts revert in sadness to the memory of one who will no more grace these meetings with his genial presence, interest us with his eloquent narratives, nor aid us in our anxieties and difficulties with his sound and matured professional experience. We are all painfully sensible that a dark shadow rests upon us now, through the recent and wholly unexpected death of our distinguished and esteemed friend Dr. Charlton.

"Leaves have their time to fall,
And flowers to wither at the north wind's breath,
And stars to set; but all—
Thou hast all seasons for thine own, oh Death!"

After having received a highly liberal education, he turned his attention at the usual age to the study of medicine, and graduated at the University of Edinburgh in 1836. His devotion to his profession, his scholarly attainments and pleasing address, soon made him a favourite practitioner in Newcastle and neighbourhood. The death of Dr. Headlam, the removal of Dr. Cargill from Newcastle, and, at a later period, the death of Dr. White, left Dr. Charlton in possession of a very large field of consulting practice. No man worked with greater freshness and spirit than he did. When we met last in consultation, about two months ago, although the work he referred to as being before him that day (and which, I have no doubt, was but a repetition of the work of most other days) seemed arduous, requiring both physical toil and mental strain, yet the countenance and the step betokened health of no common kind. But the enemy was insidiously at work, and, after two days' illness in the middle of May, with his harness still on him and in the flood-tide of his professional reputation, he was snatched from us at the comparatively early age of 59.

It may seem almost superfluous, among those who knew him so well, for me to dwell at length on his merits. It was my privilege and pleasure, however, to know him for upwards of twenty years, during which time I had much pleasant and advantageous intercourse with him; and I feel constrained to say that I found in him ever the same warm friend and safe adviser. His highly cultivated intellect and well digested store of professional knowledge, his gentle and considerate demeanour by the bedside, his accuracy of diagnosis and suggestiveness as to treatment, his invariable courtesy to his professional brethren, his unfailing punctuality in his engagements, and observance of those rules which ought to guide all who hope to tread successfully in the higher walks of his profession, were the chief points in his character which made up in him the accomplished and desirable consultant. They gained for him, no doubt, his widely extended reputation and practice in that capacity.

"The prime qualifications of a physician", writes Dr. John Brown, in his *Horæ Subsecivæ*, "may be summed up in the words *capax, perspicax, sagax, efficax*. *Capax*, then, must be room to receive, and arrange, and keep knowledge; *Perspicax*, senses and perceptions keen, accurate, and immediate, to bring in materials from all sensible things; *sagax*, a central power of knowing what is what, and what it is worth, of choosing and rejecting, of judging; and, finally, *efficax*, the will and the way, the power to turn all the other three—capacity, perspicacity, sagacity—to account in the performance of the thing in hand, and thus rendering back to the outer world, in a new and useful form, what you had received from it. These are the intellectual qualities which make up the physician, without any one of which he would be *mancus*, and would not deserve the name of a complete artsman any more than proteine would be itself, if any one of its four elements were amissing."

That Dr. Charlton came up to the ideal of the able writer whom I have just quoted, and that he possessed those qualifications in a marked degree, I feel assured will be admitted by all of us. The interest, moreover, that he evinced in all questions relating to the profession, whether they were such as called for the interference and assistance of our Imperial Parliament or the Government of the day, or were matters more especially under the guidance and control of the profession itself, is still too fresh in your minds for me to allude to it, except in a very brief way. When anything requiring thought, activity, and spirits had to be accomplished, there was to be found our late friend, *facile princeps*, up and doing, and, by the unanimous consent of his medical brethren in these counties, occupying the place of honour that he so worthily deserved. He was, I believe, one of the very early supporters of the British Medical Association, and took an active part in founding this Branch of it, which has been in existence for ten years, and has now attached to it 216 members. Nor can we forget, when the annual meeting was held at Newcastle upon-Tyne four short years ago, what energy he threw into the proceedings to make it a success. Did we not, as members of the same profession, look on with justifiable pride at the judgment and tact displayed by him on that occasion, and feel that the North of England had provided a President whose ability, hospitality, and dignity in the discharge of his duties not only obtained for him an enthusiastic reception, but commanded the admiration and approval of all?

His long connection with, and assiduous professional services to, the medical charities of Newcastle entitle him to be long and lovingly remembered by its inhabitants. Few men devote more valuable time and practical skill gratuitously to the poor than do those belonging to our body; and in this respect Dr. Charlton did not spare himself. Truly a leader has fallen from our ranks. We have sustained a loss which is not ours alone, and which cannot fail to be deeply felt for a long time to come by all classes of society in these Northern Counties. Men of his stamp are too seldom met with, and are badly spared by the profession and the public. With us he lives now only, but surely, in our affection and remembrance. Yes, the spring and summer flowers shall bloom and fade, and bloom and fade again for many years, over the last resting-place of our late associate, before his many virtues and excellencies can be effaced from the memory of those with whom his pursuit of a noble profession, wisely and nobly exercised, brought him into contact.

But I cannot conclude this hurried sketch without referring to the abiding sense of honour, the high-toned morality and earnest religious feeling that permeated the everyday life of Dr. Charlton. Amid all the toil of his incessant professional work, we know he did not fail to turn his mind towards those duties which are at once the privilege and the consolation of God's creature, Man. For we know too well—

> "The boast of heraldry, the pomp of pow'r,
> And all that beauty, all that wealth e'er gave,
> Await alike th' inevitable hour:
> The paths of glory lead but to the grave."

And, therefore, that man must be happiest who, while, to the best of his ability, spending his life diligently for his own and his neighbours' benefit, can pierce with the eye of faith these passing mundane scenes, and, like him of whom we speak, fix his hopes on a brighter world and look forward with confidence to a closer relationship to the Unseen and Eternal. None knew better than he the truth conveyed in the line—

> "He builds too low who builds beneath the skies.
> Euge te vale."

There is a question which, if one may judge from some recent newspaper articles, still continues to be of intense interest and importance to a certain section of the public. I mean the medical education of women. Since 1869, the battle-field has been chiefly in Edinburgh, where the skirmishes have been both sharp and numerous. Much difference of opinion has all along existed among the members of the Senatus and University Court, as to the propriety of admitting female students to the classes of the University. It was only by a bare majority, and after importunity without ceasing on the part of the lady students and their supporters, that they were admitted to some of the class-rooms. Many of the professors intimated their determination not to admit them to their classes along with their other students, and that they would not attempt to teach them separately. Thus the ladies and their supporters knew very well the difficulties in their way; and that, some day not far off, their progress would be barred, and graduation therefore, be impossible. Such proved to be the case. After many somewhat acrimonious discussions at meetings both lay and professional, the question of their right to be taught and to graduate at the University there was carried to the legal courts, where a decision was given adverse to the new students. In consequence of this, another movement was made. The assistance of the House of Commons was implored; petitions were sent in, calling attention to the disabilities of women in the medical school of the University. On the 12th of this month, the matter was brought formally before the House by Mr. Cowper Temple, whose motion was as follows: "That it is expedient that legal powers should be given to the Universities of Scotland to make such regulations as they may think fit for the admission and complete education of female students." Now those institutions were not only not asking for such powers, but were, in fact, totally opposed to the changes sought for. It was distinctly shown, in the course of the debate, by those who thoroughly understood the working of our University system, that the education of women in all or any of the learned professions would demand a thorough change in the constitution of the Edinburgh University, at which the motion was particularly aimed; that it would, as its representative in the House, Dr. L. Playfair, said, "disturb everything and settle nothing; that the whole organisation of the University up to this moment had been for male students; that their resources were adapted to this purpose; and that that organisation could not be suddenly fitted for female students in separate classes without a large augmentation of its resources". It was shown also that a poor university should not have forced upon it changes which would involve a great outlay of money and increase in the medical professorial staff, merely for the purpose of making an experiment which might, in all probability, end in failure at no distant day. The debate excited very little interest in the House; for, although upwards of three hundred members had taken part in a division immediately before, forty could scarcely be kept together during the discussion on Mr. Cowper Temple's motion. It has been repeatedly said that the jealousy of the profession is the main hindrance to the success of the movement. Now it appears to me that the medical profession as a body have as deep an interest in the higher education and occupation of women as any other class of men. They are, generally speaking, married men blessed with children, male and female, and not so overburdened with this world's wealth as to have no anxious thought about provision hereafter for their daughters as well as their sons. But they are behind the scenes, as it were. They have themselves gone through the curriculum of study, and have toiled and laboured at a profession which, with all its attractions and advantages, has also its drawbacks and disadvantages. They are in a better position, therefore, than most men to judge whether young women are by nature fitted for such an occupation, and whether they are well adapted to fight their way through the rugged paths that beset every young practitioner for years after he has obtained his coveted diploma. Few of our own body, I feel assured, would counsel a sister or daughter to devote herself to such work as he himself has had to encounter. I can imagine, in a large and populous city, an accomplished lady who has graduated, it may be with honours, sitting quietly in her consulting-room giving advice to, and receiving fees from, those of her own sex by whom her services are sought; without much physical toil, and possibly without interfering much with those maternal and household duties which are the peculiar pride and province of every married Englishwoman; for we presume the talented and successful will not continue to be long single, and, therefore, the word *married* is used advisedly. But how many, let me ask, are likely to attain to that position? It cannot be the lot of many; and not a few of them, should their number increase, will, in all probability, share the experience of a cousin on the other side of the Atlantic, who has thus recorded her views of the profession, in the New York *Evening Mail*:—"If the girls were to know my experience, not one in a thousand of them would ever attempt to be a doctor; for I have studied medicine and some branches of surgery, graduated with honour seven years ago, practised for five years, and was successful so far as restoring my patients and building up a large practice may be considered success; but, as for collecting" (mark the similarity between the old country and the new one!) "bills and getting bills proportionate to the time and services rendered, I was no more successful than most young practitioners. And though I am now healthy and strong, I could not compete with young men in the medical profession, because of inability to bear overwork and exposure to night air, bad weather, etc. Men who take reasonable care of their health are always well enough to visit a patient; but this is not true of women until they are nearly fifty years old, and never will be true of them at an earlier stage while the human race continues. Having *almost* killed myself, and known two other lady-physicians to *quite* kill themselves, by attending to a large medical practice, I have already given up the profession two years since, and will never resume it."

If the admirers and supporters of medical women insist upon their right to have their wives and children attended by such practitioners, by all means let the opportunity be given them. So long as they do not disturb the existing schools for young men, and endeavour to introduce a system of education which boldly throws the acknowledged modesty of the fair sex to one side, and is wholly at variance with, and repugnant to, the feelings of society in this country, it can matter little to their present opponents. The solution of the difficulty, to my mind, might be accomplished by allowing the small number likely to present themselves for admission into our ranks to obtain the necessary education from qualified teachers, disposed to undertake the duty, privately. After passing an examining body appointed by the State, they might become entitled to a certain qualification suited to the comparatively narrow path of practice they will find it necessary to cultivate.

It is gratifying to note the growing interest awakened throughout the country in measures pertaining to the promotion of the public health. Local authorities are in many instances availing themselves of their power to appoint medical officers of health, and the Universities are bestirring themselves to provide the requisite course of study and to grant degrees in state medicine. Now that we have a Prime Minister who shadowed forth his own views on this important question in his Glasgow speech last year, by using the words, "Sanitas sanitatum, omnia sanitas", it is pardonable to hope that, as he is in office at the head of a numerically strong Government, something decided may be done in the way of careful revision and alteration of the Public Health Act of 1872. Changes in some of its clauses, which will facilitate its thorough and effectual working, will not only add to his reputation as a statesman, but will also tend in a powerful direction to the preservation and prolongation of human life throughout the kingdom. When we ponder over the enormous amount of preventable mortality occurring from year to year, it seems difficult to account for the apathy that has hitherto favoured such a large premature destruction of life. To guard against advancing merely an assertion which cannot be justified, let me call your attention for a moment to what has taken place in the army within recent years, through the watchful supervision of our medical authorities.

Deaths among the Troops serving in the United Kingdom annually per 1000 *men.*

	1830 to 1836.	1859 to 1860.
Cavalry of the Line	15.	6.
Royal Artillery	15.	7.
Foot Guards	21.	9.
Infantry of the Line	17.	8.

Thus, the mortality among these picked men has been reduced by more than a half, showing what increased vigilance and advancing sanitary science, well applied, is able to effect.

It is too much the practice in this country to consider the deaths of young children as a matter that need excite no surprise; that the arrangements of Providence are mysterious, and justify the saying, "Whom the gods love die young". We, as medical men, cannot accept this view; and, while we know that too many come into this world on whom may be traced in large characters, full of portentous meaning, *Nascentes morimur*, we feel that other influences are at work, and other causes concerned, in the large mortality among young children.* I am not one of those who indulge in the Utopian hope that such diseases as scarlet fever, measles, and whooping-cough will ever be exterminated; but I do entertain the belief that, as years roll on, much may, and will, be done to diminish the mortality arising from the former two of these diseases. Unquestionably, it occurs in very much greater proportion in crowded localities, and in the dwellings of the poorer classes. The type of the disease, however, is at the same time mainly affected by the constitution of the patient, or by the sanitary condition of the house or district (whether inhabited by rich or poor), in which the epidemic happens to be present.

Again, if we look at the large preventable mortality resulting from typhoid or enteric fever, which numbers its victims by thousands every year, are we not impressed with the necessity that exists for sparing no possible effort to diminish its hold upon the people of this country, and to endeavour to exterminate it altogether? Whether it originates in simply putrefying matter, and deserves the name of "pythogenic" fever, or proceeds from special germs of the disease which are necessary for dissemination, it is not my purpose at present to discuss; but in either case we know so well where the *materies morbi* is to be found, that by careful attention to the immediate destruction of these matters by strong chemical agents, by the removal of them speedily and frequently from our dwellings and neighbourhood, and also by guarding against infected sources of our water, and, shall I not say, considering recent experience, our milk-supply, we may with confidence entertain the hope that ten years hence typhoid fever will figure less prominently in the returns of the mortality of Great Britain. Nothing will forward this desirable result so rapidly as the appointment of thoroughly good men as medical officers of health. I can see nothing to be commended in the economy urged by some members of town-councils in this particular, such as advising that a sum of £100 a year be given to a health-officer, and that he be permitted to retain and cultivate his private practice; nor can I discover any good reason for the belief that the duties of such an officer in a large and rapidly increasing town would only prove to be a sinecure; for if the area or population be too small to occupy *fully* the time of an experienced and well-paid man, it would be an easy matter to make arrangements with neighbouring local authorities, urban or rural, to share the expense connected with his services. Medical men will never co-operate heartily with a private practitioner who accepts a sanitary appointment and carries on his own practice at the same time. Without co-operation, good results are interfered with. There may be a disinclination on the part of some members constituting sanitary boards to carry into effect wise and well considered provisions, but their views as individuals cannot alter the real urgency of the case.

When I last had the pleasure of addressing this Branch, I expressed myself pretty strongly on this point, and I shall now, therefore, content myself, in concluding this, I fear, wearisome address, by quoting one paragraph from the last published Quarterly Report of the Registrar-General. "The rapid growth of the population living in towns, while it implies increase of intelligence, makes the question of their hygienic condition of infinitely greater importance than many of the trivial questions of the day on which public attention is squandered. It is a question not only of more or less sickness or suffering, but of the health, the vigour, and the development of the excellencies of the British race."

PATHOLOGICAL MEMORANDA.

A PECULIAR FATTY GROWTH ON THE UPPER SURFACE OF THE CORPUS CALLOSUM.

I AM not aware that a case has ever been described of fatty growth in a situation similar to this; it seems, therefore, worthy of being put on record. Fatty growths are very rare in connection with the brain and its membranes; they have been met with, however, on the internal surface of the dura mater and the ependyma of the ventricles. The case was one of tubercular meningitis, with a vesical and renal complication originating in a stricture of the urethra, in a man thirty-eight years of age. The brain presented the usual appearances of acute hydrocephalus; the tubercles were not very abundant, but the exudation at the base and into the ventricles was well marked. On the upper surface of the corpus callosum there was an elongated yellow structure, occupying its entire length and in the middle line. It was of nearly the same bulk in every part, averaging about five-sixteenths of an inch in breadth, and about three-sixteenths in thickness. It had the appearance of a narrow ridge on the corpus callosum, and seemed to be involved in the pia mater, a layer of which covered its surface, and another separated it from the nervous tissue of the corpus callosum beneath. Now, this peculiar growth was found, on microscopic examination, to be composed of typical adipose tissue, the large fat-cells having exactly the normal appearance. Bands of connective tissue intersected the fatty tissue just as in the case of the same structure elsewhere. The history of the case does not point to any symptoms from this growth, the phenomena being those of tubercular meningitis chiefly.

JOSEPH COATS, M.D., Glasgow.

THERAPEUTIC MEMORANDA.

TREATMENT OF PNEUMONIA AND BRONCHITIS BY CARBOLIC ACID.

IN the BRITISH MEDICAL JOURNAL for December 19th, 1868, there appeared a few remarks on my treatment of constitutional syphilis by carbolic acid. Whilst thus treating certain patients also suffering from bronchitis, I was surprised to find the latter affection, in the majority of cases, suddenly improve. I then treated cases of pneumonia in the same manner. The first case was far advanced and apparently hopeless, several days having been spent in the employment of ordinary remedies without benefit; and I was pleased to find a favourable turn in the affection within twenty-four hours after the change of treatment. From that time to the present, I have regarded the carbolic mixture as my "sheet-anchor" in the treatment of uncomplicated pneumonia and bronchitis in patients of all ages, and in very rare instances have I had to substitute other treatment. The following is my formula for an adult: ℞ Glycerini acidi carbolici ʒij; extracti opii liquidi ♏xxx; aquæ camphoræ ℥vj. Misce. Take a tablespoonful every fourth or sixth hour in three of water. Care should be taken to use only the best medicinal carbolic acid. For elderly patients, if there be much exhaustion, I add six drachms of compound tincture of cinchona to the above prescription. I need hardly say I have not neglected the employment of counterirritants externally.

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* One-fifth of those born die within a year of their birth, and a third die before the age of five years is reached. (West, *On Diseases of Children*, etc.)

HENRY GREENWAY, M.R.C.S., Plymouth.

GENERAL MEDICAL COUNCIL OF EDUCATION AND REGISTRATION.

SESSION, 1874.

Thursday, July 9th.

THE following business was transacted in addition to that mentioned in last week's JOURNAL.

Committees.—The business Committee was appointed, to consist of Dr. Andrew Wood (Chairman), Dr. A. Smith, Dr. Leet, Dr. Haldane, and Dr. Pyle; the Finance Commitiee, of Dr. Quain (Chairman), Dr. Risdon Bennett, Dr. Sharpey, Dr. A. Smith, and Dr. Fleming.

The New Offices of the Council.—In regard to this subject, the following resolutions were passed.

Moved by Dr. ANDREW WOOD, and seconded by Dr. BEGBIE: "That the Report of the Executive Committee on the new offices of the Council be received and entered on the minutes."

Moved by Dr. STORRAR, and seconded by Dr. PYLE: "That the General Council approve the arrangements recommended by the Executive Committee for the apportionment of payment by the Branch Councils of the rent, taxes, and expenses of offices, etc."

Moved by Sir WILLIAM GULL, and seconded by Dr. SHARPEY: "That the thanks of the Council be given to Dr. Quain for his services in the negotiations and other business connected with the acquisition of and furnishing the new premises of the Medical Council."

In seconding the motion, Dr. SHARPEY remarked that, but for Dr. Quain's exertions, the premises would not have been ready for the meeting.—Dr. QUAIN said that the vote of thanks had taken him by surprise. No work on which he had been engaged had given him greater pleasure. He regretted that the furnishing of the building was still in an incomplete state.

The Midwifery Diploma of the Queen's University in Ireland.—The following legal opinion was read. "We are clearly of opinion that the Medical Council cannot register the diplomas in midwifery granted by the Queen's University in Ireland. (Signed) G. Jessel, Chas. Bowen."

Reports of Visitations of Examinations.—Dr. ANDREW WOOD moved, and Dr. PARKES seconded:

"That the Reports of the Visitations of Examinations be received, and appended to the minutes of the present session of the Council."

Professor TURNER moved as an amendment:

"That the Reports of the Visitors of Examinations be received, but held for the present as confidential."

Only a limited number of examining bodies had been visited; and it would be somewhat invidious to make the reports public until the whole of the boards had been submitted to visitation.

Dr. STORRAR seconded the amendment. The visitation of examinations was a most important function of the Council, but much depended on the spirit with which the visitations were carried out; and if there appeared to be any indication of querulousness or of disposition to find fault, the good effect that might be expected would be lost. He thought that the best course would be to send the several reports to the licensing bodies concerned, and to ask their particular attention to them.

Dr. PARKES did not see how the reports could be dealt with by the Council unless they were entered on the minutes. They must be sent to the bodies concerned.

Mr. MACNAMARA said that the report on the College of Surgeons in Ireland mentioned (of course inadvertently) faults which did not really exist. It would be unfortunate to place such a report permanently on record.

After some remarks from Dr. QUAIN, Dr. FLEMING, the PRESIDENT, Dr. HUMPHRY, and Dr. HALDANE, the amendment was put to the vote and lost. The original motion was carried.

Sir W. GULL moved, and Dr. APJOHN seconded, and it was resolved:

"That the reports of the visitations of examinations be considered to-morrow in Committee of the whole Council."

Prosecution of Unqualified Practitioners.—The following letter was read.

"Dinsdale Park, Darlington, Jan. 16th, 1874.

Sir,—I am requested to inform you that, at a meeting of the South Durham and Cleveland Medical Society, which was held at Middlesborough on the 7th instant, the members were unanimous in their opinion that the Medical Council (*sic*) was ineffectual for the proper protection of legally qualified medical men, and for the prosecution of those who are unqualified. It was also maintained that the General Medical Council was the most suitable body for undertaking public prosecutions under the Act.—I am, sir, your obedient servant, J. W. EASTWOOD, M.D., M.R.C.P.L., President of the South Durham and Cleveland Medical Society.—To Dr. Francis Hawkins."

It was moved by Dr. A. SMITH, seconded by Dr. ACLAND, and resolved:

"That an extract from the minutes containing the report on prosecutions adopted in 1859 (see Minutes, vol. i, p. 35) be forwarded to Dr. Eastwood for the information of the South Durham and Cleveland Medical Society."

[The following is the extract referred to. It is the report (presented August 4th, 1859) of a Committee appointed to investigate a complaint, that "the Council does not intend to be a prosecuting body".

"In regard to the complaint made in the letter to the Right Honourable the Secretary of State, relative to the prosecution of irregular practitioners, the Committee is aware that exaggerated ideas have been currently entertained in the medical profession of the powers and duties of the Council in that respect, and think it right to take advantage of the present opportunity to state what the powers and duties of the Council really are.

"'1. The Council is called on to exclude all irregular practitioners from the *Register*, and it has exercised the greatest possible care in discharging that part of its duty.

"'2. The Council is called on to expunge from the *Register* the name of any unqualified person who may obtain admission by false pretences. This power has been already exercised.

"'3. The Council has the power to expunge from the *Register* the name of any practitioner who may be found guilty, in England or Ireland, of a felony or misdemeanour; or, in Scotland, of a crime or offence. One offence of this nature has occurred, but the name of the convicted person having been expunged from the *Register* for another cause, the Council need not proceed in the matter.

"'4. The Council has the power to expunge from the *Register* the name of any practitioner whose name may have been struck off from the list of the members of any of the bodies which grant medical qualifications.'

"It is no part, however, of the functions of the Council, according to the Act, to institute prosecutions at large for offences against the Act. The Committee has also to add, that the funds at the disposal of the Council are quite inadequate for that purpose.

"The enforcement of the prohibitory clause of the Act (sec. xl) is attended with peculiar facilities in Scotland and in Ireland, in each of which divisions of the kingdom there is a public prosecutor, whose duty it is to relieve all other persons of the responsibility of prosecuting for public offences. In England, this duty unfortunately falls in general on private individuals, or associations, and in this respect offences against the Medical Act are not differently circumstanced from offences at large. The Council will supply any information in its power to those who may become concerned in such prosecutions."]

Alleged Misconduct of Registered Practitioners.—Letters from the Assistant-Secretary to the Board of Trade, respecting two registered practitioners who were not allowed to take charge of emigrant ships in consequence of their misconduct, were read. It was moved by Sir D. CORRIGAN, seconded by Sir W. GULL, and agreed:

"That the Registrar acknowledge the receipt of the letters, and state that the Council have no power to interfere in the cases referred to."

Improper Use of a Registered Practitioner's Name.—A letter from Dr. Walter Mackern, complaining of a registered practitioner lending his name illegally to a person unqualified, was read.

Sir DOMINIC CORRIGAN moved, and Dr. A. SMITH seconded:

"That the Registrar acknowledge the receipt of the letter just read, and refer Dr. Mackern to Clause 40 of the Medical Act, which empowers him to proceed against offenders against that clause of the Act."

The motion was negatived.

Mr. MACNAMARA moved, and Dr. LEET seconded:

"That a Committee be appointed to take Dr. Mackern's letter into consideration, and to report to this Council at an early date."

The motion was carried; and the Committee appointed, to consist of Mr. Macnamara (Chairman), Dr. Andrew Wood, Dr. Leet, Dr. Bennett, and Dr. Storrar.

Friday, July 10th.

The New Offices.—Mr. Quain asked whether the new offices had been examined by a surveyor on the part of the Council. He considered this ought to be done.

Reports of Visitation of Examinations.—The President remarked that the reports presented questions of two kinds: 1, as to the particular bodies visited; 2, general questions which might be discussed without reference to any one body. He suggested that members who had taken part in the visitations should draw attention to points of special interest, and that the representatives of the several bodies concerned should have the opportunity of pointing out any inaccuracies as to facts, or opinions not justified by the facts.

Dr. Andrew Wood moved, and Professor Turner seconded, "That the Council resolve itself into a committee of the whole Council, for the consideration of the reports of visitations of examinations."

Sir Dominic Corrigan opposed the motion. Only about one-half of the bodies had been visited; and the Council did not know what was the custom or practice of the other half. It would be better to defer the consideration of the subject until the Council had reports of visitations of all the boards.

The motion was carried; and the Council resolved itself into committee, Dr. Paget in the chair.

It was proposed by the Chairman, and agreed, that the reports on the visitations of examinations be taken as read.

Dr. Smith moved, Mr. Quain seconded, and it was resolved: "That a copy of the reports of the visitations of examinations be placed in the hands of the reporters now present at the meeting of the General Medical Council".

The Apothecaries' Society of London.—Dr. Quain (who had visited the examination of the Apothecaries' Society, with Dr. A. W. Barclay and Mr. Busk) said that he was sorry to be the first to propose a motion on a report. He asked the Council to disencumber itself from any idea that might have arisen from the remarks of Sir D. Corrigan, that any invidious comparison between the different bodies would be made; the visitation of each body must be considered on its own merits. Since the last report on these examinations, the Apothecaries' Society had made arrangements for amending defects then pointed out, by making provision for the examination of patients by the candidates. The report alluded to the defective preparation of the candidates; in some this was lamentable. One thought that the spleen lay over the liver, and had no idea where the cæcum was. Of course, the Society was not to be blamed for this. Another point to which he would draw attention was, that the Society was precluded from examining in surgery, although the Council had decided that no license to practise ought to be granted, unless an examination in this subject had been passed. There was thus still a licensing body not able to test candidates on a most important point. It appeared that the Apothecaries' Act prevented the Society from appointing examiners in surgery, in the same way as was done by the Royal College of Physicians. He moved "That a copy of the report of the visitors of the examinations of the Society of Apothecaries be forwarded to the Society for their consideration and remarks."

Dr. Pyle seconded the motion.

Dr. Sharpey thought that there was nothing in the Medical Act which authorised the Council to send the report of the visitations to the licensing bodies.

Dr. Andrew Wood said that the Council had already been in the habit of doing this, with the result that, in almost all instances, the suggestions made were readily adopted by the several bodies. The visitors of the Apothecaries' Society (as well as others, had been struck with the remarkable ignorance displayed by candidates. This deficiency was not the fault of the licensing bodies; but an important question was raised, viz., was it right that there should be so many rejections, and should not the Council take measures to improve medical education?

Dr. Humphry said that his attention had been called to the subject of defective education. He gave notice of his intention to move a resolution relating to this.

Mr. Bradford said that the Apothecaries' Act of 1815 did not include provision for examination in surgery. A large proportion of the licentiates of the Society, however, (at least 80 per cent.), also obtained the diploma of the College of Surgeons. He believed, however (though the question was one for a lawyer to decide), that the Society was not prevented from examining in surgery; and, if this were so, it would, if the Council desired it, readily take steps to institute an examination on this subject.

After some remarks from Dr. Risdon Bennett, Sir W. Gull, and Sir D. Corrigan, the motion was carried.

Alleged Misconduct of a Registered Practitioner.—It was moved by Sir Dominic Corrigan, and seconded by Dr. Storrar, that the following minute be made.

"That the Council had been informed, through their solicitor, that a registered person against whom a summons had been issued to appear before the Council on this day, had shipped for Adelaide, and that the summons for his attendance could not be served upon him."

Mr. Macnamara moved as an amendment, and Dr. Parkes seconded:

"That the case of the registered person be referred to the Branch Council of that division of the kingdom in which he is registered; and that it be investigated, and, if necessary, be dealt with in accordance with Sec. XIV of the Medical Act."

The amendment was negatived. The motion was then put to the vote and carried.

The Council again resolved into a committee of the whole Council.

Conjoint Examination of the Royal Colleges of Physicians and Surgeons of Edinburgh.—Dr. Parkes moved, Dr. Apjohn seconded, and it was resolved "That the reports of the visitors of the first and second conjoint examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh, held in July 1873, be forwarded to the two Royal Colleges for their consideration and remarks."

[The visitation was made by Dr. Parkes and Mr. Holmes.]

Dr. Parkes called attention to a point alluded to in the report, viz., the practice of putting more questions than were allowed to be answered. The visitors remarked that, if there were any difference in the length and severity of the questions, the most difficult would be avoided.

Dr. Haldane said that it had been found advisable to give a certain latitude, and to allow candidates to answer part of the questions set. He would be glad to hear the opinion of the Council on the subject.

Dr. Sharpey said that there were some subjects, such as medicine, anatomy, and surgery, on which the candidate ought to be prepared on all points; while as to others, such as botany, some latitude might well be allowed.

Dr. Andrew Wood pointed out that the limitation was only in the written questions. There was also a *vivâ voce* examination, in which no limit was put as to what should be answered or not. The visitors had arrived at a time when there was a most unfortunate batch of candidates (four out of six being rejected). He believed that they came from all parts of the country.

Dr. Sharpey remarked that it would be desirable to know from what schools they came.

Dr. Andrew Wood said that the answers of the candidates contained many errors in spelling; but none of them had passed the preliminary examination of the Edinburgh Colleges.

Dr. Risdon Bennett said that Dr. Wood would assist the Council much if he would obtain a return, with regard to the candidates rejected, as to where they had been educated and where they had passed their preliminary examinations.

Dr. Paget said that the plan of allowing three questions only out of four to be answered was objectionable, as it did not show whether the candidate was ignorant regarding the fourth, provided that sufficient time were allowed for answering all the questions.

Dr. Andrew Wood said that time was allowed for answering three out of four questions.

Mr. Quain said that it was not always to be inferred that a candidate was ignorant on a question because he left it unanswered. Many could not calculate the time required for answering each question.

Professor Turner said that it was important not to mix up different subjects together in one examination, as was done, for instance, by the Apothecaries' Society, which held the examination in Materia Medica immediately after that in Chemistry. An interval between the examinations in two different subjects ought to be allowed, so that the candidate might free his mind of one before taking up another.

Dr. Allen Thomson had tried all ways, and would not like to bind an examining body to any one plan. The main point was secured if the number of questions were sufficient to test the knowledge of the candidate.

Dr. Sharpey objected to limiting the candidate to a certain number of the questions before him.

Dr. Humphry had found that both plans were followed in the University of Glasgow. There was much to be said on both sides.

Dr. Storrar said that in civil service examinations it was common to put nine questions, and require six only to be answered. A disadvantage of allowing all the questions to be answered was, that candidates with superficial knowledge could give answers to the questions of such a kind that the examiners could not determine whether or not they ought to be rejected.

After some remarks from Mr. MACNAMARA, Dr. A. SMITH, Dr. FLEMING, and Dr. PARKES, the subject dropped.

Separate Examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh.—[The reports on these two examinations were made by Dr. Risdon Bennett and Mr. Busk.]

Dr. BENNETT moved, Mr. QUAIN seconded, and it was resolved :

"That the Reports of the Visitors of Examinations for the Single Qualification of the Royal Colleges of Physicians and Surgeons of Edinburgh be forwarded to those bodies for their consideration and remarks."

Conjoint Examination of the Faculty of Physicians and Surgeons of Glasgow and the College of Physicians of Edinburgh.—[This report was made by Dr. Parkes and Mr. Busk.]

Dr. PARKES moved, Dr. APJOHN seconded, and it was resolved :

"That the Report on the Second Conjoint Examination of the Faculty of Physicians and Surgeons of Glasgow, and of the Royal College of Physicians of Edinburgh, held on the 15th and 16th January, 1874, be forwarded to the Faculty and to the Royal College for their consideration and remarks."

Dr. FLEMING objected to the concluding paragraph of the report, which appeared to imply a doubt whether the Glasgow Faculty would always choose good examiners. [The words were : "We are of opinion that (if equally good examiners always act, and act with equal care, as in the examination we witnessed) the object aimed at in the examination must be attained."]

Dr. PARKES disclaimed the inference drawn by Dr. Fleming. The object of the visitors had been to call attention to the mode of electing the examiners, who are chosen solely from the resident Fellows of the Faculty.

Dr. HALDANE said that the Edinburgh College of Physicians elected examiners from beyond the College.

Dr. HUMPHRY said that it was no reflection on a body that it should choose examiners from beyond its own ranks. This was constantly done by the University of Cambridge, not from any deficiency, but to enlarge the scope of examination.

Sir WILLIAM GULL said that, even in the University of London, it was necessary to select examiners from without. This was no reflection on the teachers belonging to that body; a man might be a very good teacher, but a bad examiner.

Dr. STORRAR said that the best examiners were found among the most experienced and successful teachers. This was always taken into consideration in the University of London.

Mr. QUAIN said that no one could examine well who had not studied examination as an art. Many candidates were rejected through the fault of the examiners.

Faculty of Physicians and Surgeons of Glasgow.—[The visitation was made by Dr. A. Smith and Mr. H. Power.]

Dr. A. SMITH moved, Sir WILLIAM GULL seconded, and it was resolved :

"That the Report of the Visitors to inspect the First and Second Examination of Candidates for the Diploma of the Faculty of Physicians and Surgeons of Glasgow be forwarded to the Faculty for their consideration and remarks."

Dr. FLEMING said that the examinations were held on the second Tuesday in the month. He thought that this was too often; but it was prescribed in the charter of the Faculty. It was unfortunate that the visitation last year was made on August 12th, the first day of grouse-shooting, so that some of the examiners were absent. The Faculty would receive all the suggestions of the visitors in good part; but he could not promise that arrangements could be made for the performance of operations on the dead body.

Mr. QUAIN referred to a passage in the report, which stated that the principal reason for dividing the professional examination into two parts appeared to be to enable a high standard of knowledge to be insisted on. He thought that this required too much. The object of an ordinary examination was to judge whether a man was fit to practise medicine. It was not sufficiently considered that there was not time for ordinary students to attain a high standard of knowledge. At the College of Surgeons, one-third of the men who presented themselves for the primary examination did not appear for the final one. Some dropped out because they were rejected; but ought there to be so great a falling off? Some years ago, he had got returns of the proportion of the profession to the population at different periods. From 1830 to 1865, there had been no increase of medical men, though the population had increased from thirteen to twenty millions. He had ascertained also with regard to the Borough—and the same was the case in large towns—that the people could not get attendance from the practitioners of the district, and hence were led to go to the parish doctor or to the hospital—a course which led to abuse of charity, loss of independence of feeling, and degradation. The Council ought to act very cautiously before it excluded a large number of men from the profession by requiring a high standard of professional education.

Saturday, July 11th.

DR. PAGET, President, took the chair at 1 P.M.

Reports of Visitations of Examinations.—On the motion of Dr. A. SMITH, seconded by Dr. STORRAR, the Council resolved itself into a Committee of the whole Council.

The Faculty of Physicians and Surgeons of Glasgow.—Dr. A. SMITH, referring to the remarks made by Mr. Quain on the previous day, said that the visitors had not expressed any opinion as to whether a high standard of knowledge should be insisted on. They only gave the reasons assigned for the mode of examination.

Mr. MACNAMARA said that the report was a very important one. The Glasgow Faculty gave a surgical rather than a medical license, and in some very important points the examinations seemed to him to fall short. For example, there was no provision for a practical examination in surgical anatomy; whereas it was very important that the examiner should see whether the student knew how to handle the scalpel. In Ireland, it had been found that candidates were sometimes ground up in anatomy without any real knowledge of the subject; and hence practical examinations in the subject were instituted. He did not see how a satisfactory *vivâ voce* examination in anatomy could be conducted in twenty minutes, or one in physiology in five minutes, as was stated in the report to be the case. It was also mentioned that no reference was made to specimens. With regard to the examination in clinical surgery, it was stated that there was no practical examination in bandaging and in the performance of operations on the dead body. Too much stress was, perhaps, laid on bandaging and the putting up of fractured limbs, as in the sound subject the conditions could not be the same as in the injured ones; but the students ought to be tested in the use of instruments. Dr. Fleming had stated on the previous day that the Faculty would take the suggestions of the visitors in good part; but Mr. Macnamara felt that he would not be discharging his duty if he allowed it to be understood that an examination of this kind was satisfactory. One of the greatest improvements in examination had been the institution of the performance of operations on the dead subject. No matter how trifling the operation might be, the practised operator would soon see whether the candidate knew how to use the knife. He protested against a man being allowed to pass an examination for a surgical licence before his ability as a *chirurgeon* had been tested. It was creditable to the skill of the Glasgow physicians that there were so few subjects available as Dr. Fleming had implied; but it must be remembered that old persons died, and he could not understand the difficulty of obtaining subjects in so large a city as Glasgow. As to the mode of examination, he agreed that it was not advisable to give written questions which went completely over the heads of the students; it was a great mistake to set questions that were not intended to test the pupils, but only to show the superiority of the examination. Mr. Macnamara referred to the fact that students rejected at one board were admitted very soon afterwards at another. A very remarkable instance had recently occurred. A candidate at the College of Surgeons in Ireland was examined two days, and was rejected; in six months, he again presented himself for examination, and was again, after two days, remitted to his studies; and again, after another six months, he was examined with the same result. But, in the very same month in which his last rejection took place, his name appeared on the *Register* as the holder of a medical and surgical qualification from another board. This state of things could not be allowed to continue. There was another case. A candidate rejected at the close of last year by the College of Surgeons in Ireland went to another body (not the same as before mentioned), which admitted him; and his name appeared in the *Register* as a Licentiate of the College of Surgeons in Ireland. He hoped that in future examinations in practical surgery and scalpellar anatomy would be the rule and not the exception in the Glasgow Faculty.

Sir D. CORRIGAN said that the gentleman last referred to by Mr. Macnamara was a candidate for the appointment of house-surgeon to the Richmond Hospital. It was necessary for him to hold a surgical diploma; and he obtained one from a Scotch College. He was appointed resident-surgeon, and had discharged his duties with great ability. He was also the holder of a travelling surgical fellowship of Trinity College. There had been a mistake in the entry of his qualification—I (Ireland) having been put instead of E (Edinburgh).

Dr. SMITH said that the question had been investigated by the Branch Council for Ireland.

Dr. ANDREW WOOD asked whether, if a candidate came from Ireland to a Scotch College and passed a good examination, his diploma could be refused?

Mr. SMITH said that the gentleman referred to by Mr. Macnamara and Sir D. Corrigan had the highest marks at the M.B. examination in the University of Dublin—indeed, he was the most distinguished pupil of the year.

The PRESIDENT called attention to the fact mentioned in the report, that the Faculty of Physicians and Surgeons in Glasgow held special examinations. The objection to these was, that they could not be visited by the Council. Their existence seemed inconsistent with the Medical Act.

Dr. PARKES said that the question had often been before the Council, whether a rejected candidate should be allowed to again present himself for examination within a certain time.

The PRESIDENT said that a rule of this kind had once existed, but had been renounced, as the carrying it out led to the gibbeting of the unsuccessful candidates.

Dr. STORRAR said that another reason for rescinding the rule was that it was felt that it was for the body before which a man presented himself for examination to determine whether he should pass.

Dr. RISDON BENNETT said that the point was a most important one, and he would give notice of a motion on the subject.

Sir D. CORRIGAN said that the Council had often considered whether the name of a rejected candidate should be forwarded to all the other boards, and had decided that it would not be fair. If the Council did this, it would be acting like the Insurance Companies, which communicated to each other all the medical reports on rejected applicants.

Dr. FLEMING said that he knew cases where students who had been rejected in Glasgow passed directly afterwards in Dublin.

Mr. MACNAMARA would challenge the representatives of any of the bodies to show that a candidate rejected elsewhere had been allowed to pass the examination of the Royal College of Surgeons in Ireland.

The University of Glasgow.—Dr. QUAIN moved, Dr. HUMPHRY seconded, and it was agreed:

"That a copy of the reports of the visitors to the several examinations of the University of Glasgow be forwarded to the University for its consideration and remarks."

[The visitation of the examination in October 1873, was conducted by Dr. Quain and Mr. H. Power; and in April 1874, by Dr. Humphry and Dr. A. W. Barclay.]

Dr. ALLEN THOMSON would not enter at present on the general questions referred to in the report, and would say little on the details, because some of them involved general considerations. He expressed his sense of the fairness with which the examinations had been visited, and the reports drawn up. The suggestions made would be received by the University with respect, and would receive full consideration. He hoped that the same visitors would be appointed to visit the examining boards, so that the results might be more readily compared. He was quite sure that excellence in examination would be attained, as a rule, only after long practice; the office of visitor also required experience. With reference to an observation in the report, that dissection was not commonly required from the candidates, Dr. Thomson said that a part was prepared by dissection (often by Dr. Thomson himself), and the candidate was examined on it. As the teachers of anatomy were the examiners, they had had the students constantly under observation, and knew already whether they could dissect. There were difficulties in examining in practical anatomy; it must be done by previous arrangement, so as not to interrupt the course of examination. He did not think that Dr. Fleming meant that there was a difficulty in obtaining bodies in Glasgow. The recommendations as to histology and chemistry would receive serious consideration by the University.

Mr. TURNER referred to a paragraph of the report, which stated that "the examiners ascertained that no examination indicating any higher standard of knowledge (than that for M.B.) was passed before taking the degree of M.D." This was applicable to the Universities of Scotland generally, but not to that of Edinburgh, which did not confer the degree of M.D. until an additional test had been afforded in the form of a thesis on some original object. This was not a mere matter of form; for several theses had been rejected as insufficient. Rejection for insufficiency of theses had also taken place in the University of Glasgow. The thesis system had done much among the Edinburgh students to stimulate original research.

Sir WILLIAM GULL objected to the estimation of the value of answers by numbers.

Dr. ANDREW WOOD agreed with Sir William Gull, and thought that a good approximative result could be got from marking the answers "optime", "bene", etc. Any attempt to lay down an uniform standard would be altogether Utopian.

The motion was then agreed to.

Royal College of Surgeons in Ireland.—Dr. A. SMITH moved, and Professor TURNER seconded:

"That the reports of visitations of the examinations for 'Letters Testimonial' of the Royal College of Surgeons in Ireland be forwarded to that College for its consideration and remarks."

[The visitations were made on July 13, 24, 26, and 27, by Dr. Aquilla Smith and Mr. Henry Power].

Mr. MACNAMARA, on the part of the College, thanked the visitors for the courtesy and justice which they had shown. The visitors had called attention to the present plan of holding the written and the *vivâ voce* examination on the same day. In future, these would be held on separate days. Referring to the inability of the visitors to obtain copies of the written answers, as mentioned in the report, he said that it had always been the practice to destroy the answers in the examination for the license; those of the fellowship examination, however were preserved for a year. The examiners had no power to give up the written answers without permission of the council of the College.

Sir WILLIAM GULL moved as an amendment, Dr. PARKES seconded, and it was resolved:

"That the reports of the visitors on the examinations of the Royal College of Surgeons of Ireland be forwarded to the College for its consideration and remarks.

"The Council has had its attention drawn to the many sources of imperfections in the examinations; and trusts that the accompanying reports of the visitors will receive serious consideration on the part of the authorities of the Royal College; and that, in any future visitation, the written papers of the candidates may be preserved and submitted without restriction to the visitors for their perusal."

Monday, July 13.

Dr. PAGET, President, took the chair at seven P.M.

Returns from the Army Medical Department.—The returns from the Army Medical Department of the results of the examinations on September 8, 1873, and March 4, 1874, were presented. In the first return, the total number of candidates was fifteen; succeeded in obtaining appointments, eleven; succeeded in examination, but not in obtaining appointments, there being only eleven vacancies, three; rejected, one. In the second return there were eighteen candidates, all of whom succeeded in examination, but two did not obtain engagements, there being only sixteen vacancies.

Dr. APJOHN moved, Dr. PARKES seconded, and it was resolved:

"That the returns from the Army Medical Department be entered on the minutes, and that the thanks of the Council be given to the Director-General for his courtesy in forwarding the returns."

Letter from Dr. Mackern.—The following report from the committee, to whom a letter from Dr. Mackern was referred, was read:

"The committee having looked into the case referred to in Dr. Mackern's letter, have to state to the Council that, though Dr. Mackern's letter is addressed to the president and members of the General Medical Council, it refers to a matter, which, in compliance with a standing order of the Council, ought 'to be investigated in the first instance by the Branch Council of that part of the kingdom in which the person whose name is proposed to be removed from the *Register* may reside'. The committee, therefore, recommend that Dr. Mackern's letter be referred to the Branch Council for England, and that Dr. Mackern be informed that this step has been taken.

(Signed) "RAWDON MACNAMARA, Chairman."

Mr. MACNAMARA moved, Dr. STORRAR seconded, and it was resolved:

"That the report of the committee appointed to consider Dr. Mackern's letter be received and entered on the minutes."

A letter from Dr. James Dawson of Long Eaton, relative to the same subject, was also read.

It was moved by Dr. STORRAR, seconded by Dr. ANDREW WOOD, and agreed:

"That the correspondence with Dr. Mackern and Dr. Dawson be referred to the Branch Council for England."

The Case of Mr. Permewan.—A correspondence with the Royal College of Physicians of Edinburgh, respecting the case of Mr. John Permewan, was read.

The University of London and Conjoint Examinations.—A letter from the Registrar of the University of London, enclosing a letter from the Home Office, respecting the Conjoint Examinations, was read. It was moved by Dr. STORRAR, seconded by Sir W. GULL, and agreed:

"That these letters be entered on the minutes."

The following was the letter referred to :

"University of London, Burlington Gardens, W., July 7th, 1874.

"Dear Sir,—I am directed by the Senate of the University of London to forward to you the accompanying copy of a letter from the Home Secretary, from which it will be seen that the University will now be enabled fully to co-operate in the scheme of conjoint medical examination, which has been approved by the Medical Council.—I remain, dear sir, yours faithfully, (Signed) "WILLIAM B. CARPENTER.

"Dr. Francis Hawkins."

[COPY.]

"Whitehall, 29th June, 1874.

"Sir,—I have the honour to acknowledge the receipt of your letter of the 18th instant, and to inform you that I approve of the following resolution of the Senate of the University of London, viz. : 'That henceforth no candidate, unless he have passed the preliminary scientific (M.B.) examination before the final adoption of the scheme of conjoint medical examinations, shall be admitted to the second M.B. examination of the University of London, until he shall have passed the final examination of the Conjoint Board.'—I have the honour to be, sir, your obedient servant, (Signed) "RICHARD ASSHETON CROSS."

"To the Registrar of the University of London."

Proposed Alteration of Name.—A petition from Mr. John Joseph Ray, Licentiate of the Colleges of Physicians and Surgeons of Ireland, for permission to alter his name on the *Medical Register.* On the proposal of Dr. PARKES, seconded by Dr. FLEMING, it was resolved :

"That the letter from Mr. John Joseph Ray be referred to the Branch Council for Ireland, for the purpose of ascertaining the facts, and of altering the spelling of the name, if it be found proper to do so."

The British Pharmacopœia.—Dr. AQUILLA SMITH brought forward a series of resolutions for the formation of a Committee with a view to the publication of a new edition of the *British Pharmacopœia* in 1877. The motion, however, was not seconded, and therefore fell to the ground.

The Register of Students.—Dr. AQUILLA SMITH proposed that the register of medical students, as being useless, should be discontinued. This was not agreed to.

The Pharmaceutical Society.—A letter from the Pharmaceutical Society of Great Britain, inclosing copy of a resolution of the Council of that body, suggesting the appointment of pharmacists on the Pharmacopœial Committee, was read.

The Compilation of the Register.—It was moved by Dr. MACNAMARA, seconded by Dr. A. SMITH, and agreed :

"That it is advisable that in future proof sheets, as printed, but previous to publication, of the *General Register*, should be forwarded to the Branch Registrars for each division of the kingdom for revision."

Dr. MACNAMARA moved, Dr. A. SMITH seconded, and it was agreed :

"That it be referred to Mr. Ouvry to instruct the Executive Committee as to the strictly legal manner in which additional titles, changes of residence, and erasures of names, should be effected on the *General Register.*"

The Visitation of Examinations.—On motion from the Chair, the Council resolved itself into Committee of the whole Council.

The Queen's University in Ireland.—Dr. HUMPHRY moved, Dr. BENNETT seconded, and it was resolved :

"That the Reports on the Visitations of the Medical Examinations in the Queen's University in Ireland, held June 1873 and September 1873, be forwarded to that University for consideration and remark."

It was moved by Dr. PARKES, and seconded by Sir WILLIAM GULL :

"That the Council desire particularly to call the attention of the Queen's University to defects noticed in the Second Report in the Preliminary Examination, and in some of the subjects of the Professional Examinations."

Sir WILLIAM GULL said that there were many commendable points in the examinations of the Queen's University; but the Council met for the purpose of criticising. He considered that the plan of allowing candidates to choose either the vertebrate or the invertebrate group of animals was extraordinary. He referred also to parts of the reports where the visitors spoke of the want of knowledge displayed by some of the candidates, and of the superficial character of some parts of the examination.

Dr. HUMPHRY believed that the visitation of the Queen's University was the only one in which the preliminary examination was alluded to; and he thought it rather unfair to censure that University alone for defects on this point. He objected to passing a vote of censure, as the visitors had reported satisfactorily of the examinations. The visitations had been carried out in a most searching manner; and the visitors had been readily allowed free access to all parts of the examinations.

Sir WILLIAM GULL had not overlooked the laudatory parts of the reports; but the object of the Council was to improve education. The visitors had commented on the absence of practical examination in some subjects, and on the want of knowledge of midwifery displayed by the candidates.

Dr. RISDON BENNETT said that the University admitted the necessity of improvement in some points. The visitors had spoken of preliminary education, because this was very defective in some of the candidates. For instance, in physics, one candidate said that "water rose in a syringe because it was attracted by the piston". He believed that the suggestions of the visitors would be attended to by the University.

Dr. FLEMING called attention to a paragraph in one of the reports, in which it was stated that "the examiners had ascertained that it was a common practice for candidates rejected at the M.D. examination of the Queen's University to present themselves at the next ensuing examination of one of the Scotch licensing bodies, and to obtain therefrom a licence to practise"; and that "this practice was not limited to rejected candidates of the Queen's University and successful aspirants for Scottish licences". He said that it was difficult to send back a student who presented himself with proper credentials and passed a satisfactory examination. A large number of students came to Glasgow from the north of Ireland. In the last six years and a half, fifty-nine had so presented themselves. Of these, twenty-one had passed, and thirty-eight had been rejected. Of the latter, sixteen already held Irish diplomas.

Dr. A. SMITH would like to know whether any of the rejected candidates had the diploma of the Royal College of Surgeons of Ireland.

Dr. ANDREW WOOD thought that the visitors had gone beyond their functions in making the remarks referred to by Dr. Fleming. He did not think that the practice alluded to was a common one. He thought that the reports of the visitors should be confined to practical points. The Scottish bodies did not merit any charge of underselling and undereducating, such as was sometimes made against them.

Sir DOMINIC CORRIGAN made a few remarks; but, the hour of six having arrived, the discussion was adjourned.

Tuesday, July 14th.

DR. PAGET, President, took the chair at 2 P.M.

The Queen's University in Ireland.—The discussion on the reports of visitations of the Queen's University in Ireland was resumed in Committee of the whole Council.

Sir DOMINIC CORRIGAN said that Dr. Parkes proposed to remedy an injustice done to the College of Surgeons of Ireland by being more unjust to the Queen's University. For some time, Dr. Parkes had shown hostility to the Queen's University; several years ago, he had endeavoured to get a representation made to the Privy Council regarding it. The visitors of the Faculty of the Physicians and Surgeons of Glasgow had made some severe comments; but the Committee had simply decided to forward the reports to that body. This was a perfectly fair proceeding; and the same was the case with regard to the University of Glasgow. The reports of visitations ought to be sent to each of the bodies without comment from the Council. He proposed as an amendment :

"That all comment and criticisms on the reports of visitations be suspended until the reports of visitations of all the licensing bodies be laid before the Council; and that the resolution of Sir W. Gull, seconded by Dr. Parkes, on July 11th, 1874, in reference to the Royal College of Surgeons in Ireland, be, and is hereby, rescinded."

If the course followed with regard to the Apothecaries' Society and the Glasgow bodies was right, that with regard to the College of Surgeons of Ireland was wrong. The resolution before the Committee regarding the Queen's University, apart from its unfairness, was not business-like. Dr. Parkes should have pointed out those portions of the report which praised the Queen's University as well as those in which it was blamed. Sir Dominic Corrigan then at some length referred to passages in the report on which the visitors spoke with commendation of the examinations; and also pointed out that in several matters the plans followed in the University were to be imitated rather than criticised. The plan of appointing examiners for a limited term of years was worthy of being followed; in some of the Scotch and English Universities, the examiners were appointed for life. The visitors had regretted that a more definite rule, obliging students to pass in all the subjects of preliminary education, had not been made. In fact, the requirements of the Queen's University in regard to preliminary education exceeded those of the Medical Council. An examination in Modern Languages and Experimental Physics was required of candidates for the degree of M.D.; and if they did not pass this, their diplomas were withheld until they had done so. Some of the matriculation examinations of the Queen's Colleges had been alluded to as "little more than a farce". The expression might be applied to other of the preliminary examinations recognised by the General Medical Council. The Queen's University had no control over the matriculation examinations in the twin Colleges. In 1865, he (as Vice-Chancellor) and others endeavoured to get this amended, but without success. The matriculation examination, however, did not help a man to get a degree. The visitors had (*inter alia*) alluded to the candidates being required to attend a hospital of only sixty beds. Sir Dominic said that, as a student, he had attended a small hospital and learned much in it; and he had afterwards made his reputation in a small hospital. The same had been done by others; and some of the best men in Ireland had been educated in the small country hospitals. The candidates for the Queen's University degrees are not required to hold the office of clerk or dresser. It would be impossible for all to hold these appointments; and it would be unjust to the patients to submit them to all men who wished to be dressers. The plan had been tried, but had to be abandoned. Regarding the statement respecting the passing of rejected candidates by other licensing bodies, he would say that, as Vice-Chancellor of the University, he had never known an instance of this. What was the evidence on which the visitors founded their statement? In concluding, he quoted the final sentence of one of the reports, viz.: "We feel bound to repeat that the examinations which we witnessed were, within their scope, admirably well-conducted and complete, and thoroughly honest."

Dr. A. SMITH seconded the amendment.

Dr. PARKES disclaimed the charge of having acted with hostility against the Queen's University. He explained the circumstances under which, some years ago, he had proposed that the conduct of the University in regard to the preliminary examination should be reported to the Privy Council. He had acted as chairman of a Committee on the subject; but his proposal, though generally supported, had been withdrawn on the advice of the President and others, because the Medical Act provided for representation being made to the Privy Council with regard to defects in professional examination and education only. He had no hostility against the Queen's University, which had done good service in Ireland; but was merely performing his duty as a member of the Council. Would it be possible to send the second report on the University without specially pointing out that something must be done? The same defects as regarded preliminary examination existed now, as there were several years ago.

The PRESIDENT said that the statement that a large proportion of the preliminary examinations recognised by the Council were little better than farces, implied a grave charge, and one which, he thought, ought not to be made.

Sir WILLIAM GULL said that, if the resolutions regarding the College of Surgeons in Ireland were rescinded, he would move that the Council should go to the Privy Council with all the reports of visitations.

Dr. RISDON BENNETT had felt that he was undertaking a responsible duty when he agreed to visit the Queen's University. To the best of his belief, the report drawn up by himself and Dr. Bristowe was an honest one, and was carefully made. All the information given in it was derived from good authority within the University; none from without; but whether it was always absolutely correct, he could not say. As to whether the comments were justified, the Council could judge. Dr. Parkes had only discharged his duty as a member of the Council, and should not be accused of hostility against the University. He adhered to his report as almost a transcript of what he saw.

Dr. ANDREW WOOD did not think that any case had been made out against the Queen's University. He could not support Dr. Parkes's motion; nor could he support Sir D. Corrigan in his proposal to rescind the resolution regarding the College of Surgeons in Ireland. As to the statement regarding rejected men being admitted elsewhere, the Glasgow Faculty had been exonerated; but Dr. Bennett ought to name the bodies, and give their representatives an opportunity of defending them. The remarks in the report were not applicable to the Edinburgh Colleges.

Dr. HUMPHRY spoke in favour of treating alike all the bodies on which reports were made. In both the reports, the visitors spoke highly of the examination of the Queen's University. If Dr. Parkes's motion were carried, it would be in opposition to the opinion of himself and the other visitors.

Mr. MACNAMARA supported the amendment, and expressed his astonishment at the tone of personality adopted in some of the discussions. With reference to Sir William Gull's remarks, he would delight in an appeal to the Privy Council. It was not likely that a College of Surgeons, in the governing body of which were such men as Robert Adams, Butcher, Colles, etc., would be allowed to lose its reputation. The College was already aware of the defects pointed out in the report, and was taking measures for their amendment. The written and *vivâ voce* examinations would be held on separate days, and provision would be made for allowing the visitors to inspect the written answers.

Dr. QUAIN could not support Dr. Parkes's motion with regard to the Queen's University. The College of Surgeons in Ireland, however, could not have been passed over.

Dr. ACLAND having made some remarks, the amendment was put to the vote; 4 voting for it, and 13 against it.

Dr. Parkes's resolution was then voted on, and lost; 3 voting for, and 16 against it.

The Council then resumed; and, on the proposal of Dr. STORRAR, the proceedings of the Committee were adopted.

Proposed Bill to amend the Medical Act of 1858.—Notice of the following Bill had been placed on the programme by Sir Dominic Corrigan.

Whereas it appears expedient to amend the Medical Act, August 2nd, 1858, 21 and 22 Victoria, c. 90.

1. Be it, and it is hereby enacted that Section XV shall be and is hereby amended so far as permitting persons to be registered who are possessed of only one qualification described in Schedule (A) of the Act of Victoria 21 and 22, c. 90, and that from and after the passing of this Act no person shall be entitled to be registered under the provisions of this Act, unless he possesses a degree or license to practise Medicine as well as a degree or license to practise surgery from some University or College, or other body duly authorised to grant the same.

2. That from and after the   Clause XXXVI be and is amended as follows: That from and after the passing of this Act no person, unless prievously registered, shall be entitled to hold any appointment as a physician or surgeon, or other medical officer in charge of sick or wounded either in the military or naval service, or emigrant or other vessels, or in any hospital, infirmary, dispensary, or lying-in hospital, not supported wholly by voluntary subscriptions, or in any lunatic asylum, gaol, penitentiary, house of correction, house of industry, parochial or union workhouse, or poor house, parish union or other public establishment, body or institution; or to any friendly or other society for affording mutual relief in sickness, infirmity, or old age; or as a medical officer of health, unless he be registered under this Act, and, unless, in addition to his being duly registered, he shall also be examined and declared competent for such appointment by an Examining Board as hereinafter provided, and entitled to append to his name on the registry, the letters C.M.B., signifying Civil Medical Board.

3. That within the period of three months from and after the passing of this Act, it shall be the duty of the General Medical Council to appoint a Civil Medical Board, consisting of five examiners from England; five from Ireland, and five from Scotland, whose duty it will be to examine all candidates presenting themselves, who shall have passed the double examination in medicine and surgery, and obtained their degrees or licenses to practise medicine and surgery from bodies legally entitled to grant such degrees or licenses, and have been duly registered as such, and that on passing such examination they shall be entitled to append to their names C.M.B., and shall be eligible to hold public appointments as provided for under Clause XI of the Amended Act.

4. That the respective local registrars for England, Ireland, and Scotland shall be the registrars for the Examining Board, and shall keep the registries and examination lists in such form as laid down by the General Medical Council, and for such additional duties they shall be paid such salary as the General Medical Council shall allow, with the approval of the Commissioners of Her Majesty's Treasury.

5. That the Board of Examiners, as so appointed, shall be an Examining Board only, without any power to inquire into or lay down courses of education or of study.

6. That the fee for examination and certificate from the Examining Board shall not exceed five pounds, and that in case the amount so received for such examinations be not sufficient to meet the expenses of the Examining Board, it shall, and may be lawful for the Lords Commissioners of Her Majesty's Treasury to award such sums as may be requisite to pay the salaries of the Boards of Examiners and their clerks.

7. That the examiners shall be appointed for three years, but not for a longer period, and shall not be eligible for re-election until after an interval of three years, and that members of the General Medical Council shall not be eligible to be appointed as examiners.

8. That this Act shall be construed as one with the Medical Act of August 2nd, 1858, entitled "The Medical Act of 1858".

Sir D. CORRIGAN said that he would withdraw the first clause. He explained the second as being intended for the protection of all who were not in a position to choose their own medical men. The army and navy required candidates to undergo a separate examination. The proposed Bill would not interfere with any of the present examining bodies. He moved the adoption of the Bill.

Dr. A. Smith seconded the motion.

Dr. Storrar opposed the proposal. He could not support any plan which would tend to retard the schemes of conjoint examinations which he hoped to see carried into effect. The Bill of Sir D. Corrigan would, moreover, interfere with the autonomy of the existing examining bodies.

Dr. Andrew Wood said that Sir D. Corrigan had withdrawn the only clause which gave the proposed Bill any title to the support of the Council. The present Medical Act already fully provided for what was described in the second clause of the proposed Bill. He thought that the Bill was one of the most revolutionary measures that had been brought before the Council. In what was the proposed new examination to differ from those which the candidates had already undergone?

Mr. Quain pointed out that, according to Sir D. Corrigan's proposal, the medical officers of such hospitals as Guy's or St. Bartholomew's would have to undergo a separate examination, while those of many of the smaller hospitals, supported by voluntary contributions, would not. Again, the medical man attending the poor in a district, holding the title of "C.M.B.", would be of a higher grade than the medical man in private practice who attended the families of the same district.

The hour of six having arrived, the debate was adjourned on the motion of Sir D. Corrigan.

Wednesday, July 15th.

The President took the Chair at 2 P.M.

Proposed Amendment of the Medical Act.—The discussion on Sir Dominic Corrigan's motion was resumed.

Dr. Stokes said that the proposal must be considered with reference to a question that had long occupied the Irish bodies—the formation of a conjoint examining board. He thought it scarcely consistent to consider any new plan until the fate of the first series of propositions—for the formation of a conjoint board—should be determined. The new board proposed by Sir D. Corrigan would, if the measure were approved of, be superior to all the other examining boards.

Sir Dominic Corrigan having replied, the votes were taken, when there appeared—for the motion, 2; against, 19; and not vote, 3.

Class Examinations.—Dr. Humphry moved:

"That the Council recommend that, in the case of the certificates presented before admission to the examinations of the several licensing bodies, each should include a statement from the teacher or teachers that the candidate had satisfactorily attended the examinations from time to time held on the subject of study to which the certificate relates."

Dr. Parkes seconded the motion, which, after discussion, was carried, 14 voting for and 6 against it.

Limitation of Subjects of Examination.—Dr. Andrew Wood moved:

"That it is desirable that, in the examinations on several of the subjects of the curriculum—such, for example, as botany, zoology, chemistry, and materia medica—the area of examination should be limited and defined."

Dr. Begbie seconded the motion, which was carried.

Conduct of Examinations.—Dr. Humphry proposed, Sir W. Gull seconded, and it was resolved:

"That it is important that two examiners, or an examiner and assessor, should be present at every clinical and every oral examination."

[*To be concluded.*]

SELECTIONS FROM JOURNALS.

PATHOLOGY.

The Changes produced in the Trachea and Lungs by Ammonia.—In order to test the statement of Reitz and Oertel, that true croupous inflammation can be excited by dropping ammonia into the air-passages of animals, H. Meyer (Pflüger's *Archiv*, 1873, vol. xiv) introduced into the air-tubes of dogs and rabbits a solution containing in each 100 cubic centimetres 8.96 grammes of ammonia; eight to ten drops being used for dogs, and from three to six for rabbits. He then investigated the changes found either on killing the animals, or on their spontaneous death, which took place generally within a period varying from forty-eight to seventy-two hours. From two to five hours after the injection, the mucous membrane became swollen and red, and studded with numerous ecchymoses; colourless blood-corpuscles lay around the vessels. From the surface, a fine membrane could be raised, consisting essentially of epithelial cells; under it, the basement-membrane lay exposed. The epithelial cells had undergone very various changes of form, being partly cup-shaped, with an opaque granular protoplasm, without cilia; most of them, however, were reduced to fragments. Along with them were a few pus-corpuscles, and a few fungous growths of the most various forms. The whole was imbedded in a mass of mucus, which, under the action of alcohol, formed a fine network, or ran into nuclei. The trachea was filled with bloody mucus as far as the larger bronchial tubes; the mucous membrane of the larynx was pale and œdematous. After ten hours, the frothy secretion was replaced by a muco-purulent one, becoming purely purulent in the deeper part; the false membrane was yellower, and consisted almost exclusively of round cells, nucleated adipose cells, free nuclei, fat-nuclei, cryptogamic growths, and mucus. Under the action of hardening materials, the latter formed a delicate trellis-work, which, with its enclosed cells, closely resembled the network present in croup. The mucous membrane was enormously hypertrophied, and presented an increased infiltration of proliferating cells. The mucous membrane of the larynx was pale and remarkably swollen; the epithelium was in part fatty. If the animal died or were killed when the disease was at its highest point, the air-tubes were found to be lined with a nearly tubular membrane, from half a centimetre to a millimetre in thickness, extending nearly as far as the bifurcation, and ending here in a dirty yellow puriform mass. The membrane could be drawn off easily, was of a yellow colour, and sometimes thinner, sometimes thicker; it was never elastic like croupous membrane. As in the previous stage, it consisted of round cells with one or more nuclei, fat-nuclei in masses and isolated, fungi, mucus, etc.; there was not a trace of fibrine. Carmine stained it of a dirty reddish brown, the pus-corpuscles only becoming red. There was no trace of epithelium remaining. The tissue of the mucous membrane, especially on the inner layer, was studded with proliferating cells. The laryngeal mucous membrane was swollen, and covered either with a muco-purulent secretion, or in spots with similar small membranous deposits. In the lungs, hæmorrhagic deposits arising from hæmorrhage from ruptured capillaries were met with in the earlier stages; afterwards, changes took place in the non-hæmorrhagic parts, having the character of catarrhal pneumonia; changes like those in croupous pneumonia were never met with. Meyer therefore concludes, contrary to the opinion of Reitz and Oertel, that the introduction of ammonia into the air-tubes of animals does not produce an affection identical with croup in man; that, on the other hand, small quantities of ammonia only produce a catarrhal inflammation, large quantities a destruction of the epithelium with infiltration of the mucous membrane with small round cells; and, finally, that severe catarrhal inflammation and hæmorrhage in the alveolar spaces of the lungs take place.—*Centralblatt für die Medicinischen Wissenschaften*, April 18th, 1874.

OBSTETRICS.

New-born Infants.—In a lecture lately delivered at the Hospice des Enfans Assistés in Paris, M. Parrot said that the differences between the definitions given of the term new-born infant, due for the most part to medical legists, showed the difficulty of establishing definite and invariable limits. All the limits hitherto set forth are too near the time of birth, and the result is, that their first period of infancy embraces too short a space of time. M. Parrot thinks that the length of this period may be fixed at six weeks, but that it may vary according to certain conditions of the health and strength of the child. To this first period succeeds infancy, properly so called. At the moment when the child passes from intrauterine to extrauterine life, three very important modifications occur in relation to (1) the falling off of the cord and the obliteration of the umbilical vein and arteries; 2. The occlusion of the foramen ovale, and the disappearance of that interauricular communication; 3. The obliteration of the ductus arteriosus. The fall of the cord occurs at the end of a quite special inflammatory process, which goes on at the level of its point of attachment to the abdominal wall; it shows itself from the third to the sixth day, and is somewhat frequently accompanied by lesions of the umbilical vein, especially by thromboses. These thromboses give rise to secondary lesions of the liver and peritoneum. The occlusion of the foramen ovale is due to the development of a valve, which progresses from behind forwards in a semilunar shape, leaving an oval orifice at the end, at first of a moderate size, narrowing by degrees. According to Alvarenga's researches, the occlusion does not become complete, and at the anterior part the valve is only adherent to the isthmus Vieussenii, and even then would very rarely be found adherent. M. Parrot has not arrived at the same result, and has not met with this free communication so frequently as has Dr. Alvarenga. In adults, he has only met with it in 50 per cent. of the cases. At the same time, it appeared to him that this communication became more apparent and more easy to demonstrate without being more frequent, in proportion to the increased age of the individual. The third important change in the conditions of the circulation is the obliteration of the ductus arteriosus. This canal has always been found obliterated after three years of age, except in one case. Cases of congenital lesions of the pulmonary artery are not taken into consideration, for under those circumstances the canal always remains permeable. Out of eighty-six children at one month old, M. Parrot found it open in thirty instances, retracted in two, obliterated in one, and filled up by a thrombus in three. This canal becomes obliterated, not as the result of mechanical conditions, as Chevers admitted, nor in consequence of the formation of a clot, according to Longet's opinion. It becomes closed in consequence of a process of proliferation which goes on in the internal tunic and the internal half of the median tunic. These two membranes revert to the embryonic state, especially at the median portion of the canal. It is this embryonic condition which accounts for the appearances presented by the arterial canal filled up by a thrombus; it has assumed an oval form at its median portion. The walls have given away under the internal pressure, and the vessel has become dilated at this level. In fact, the activity of the proliferating process, particularly at this point, has deprived the walls of a portion of their elasticity and of their power of resistance.—*Gazette Médicale de Paris*, No. 19, 1874.

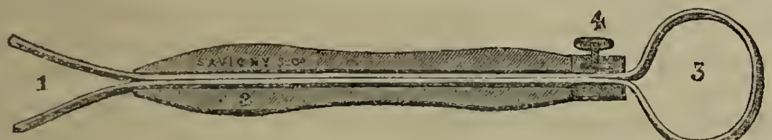
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MINOR SURGERY CLAMP.

By RICHARD DAVY, F.R.C.S., Surgeon to the Westminster Hospital.

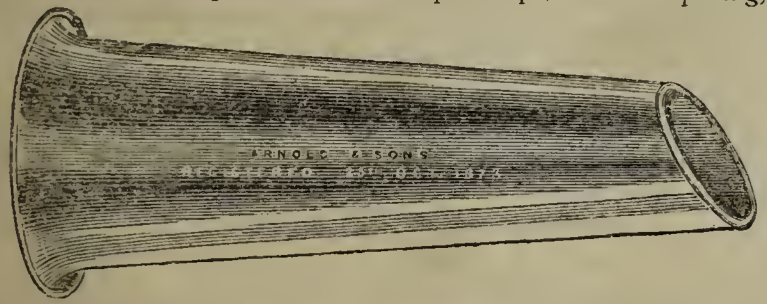
THE drawing represents in section a very handy clamp for the elastic ligature (made for me by Blaise and Co., 67, St. James Street, S.W.), and has been used successfully for operations on the phalanges, circumcision, removal of warts from penis, etc. The same mechanism may be readily adapted for major operations.

The ends (1) of the elastic band are placed at one aperture of the tunneled handle (2); the loop (3) occupies the other. The surgeon, having made sufficient traction on the elastic loop around the phalanx or penis, turns the screw (4) on, and fixes the bands. The assistant's hold on the handle is very conveniently out of the way of the operator.



TAPERING METALLIC TUBULAR SPECULUM (REGISTERED).

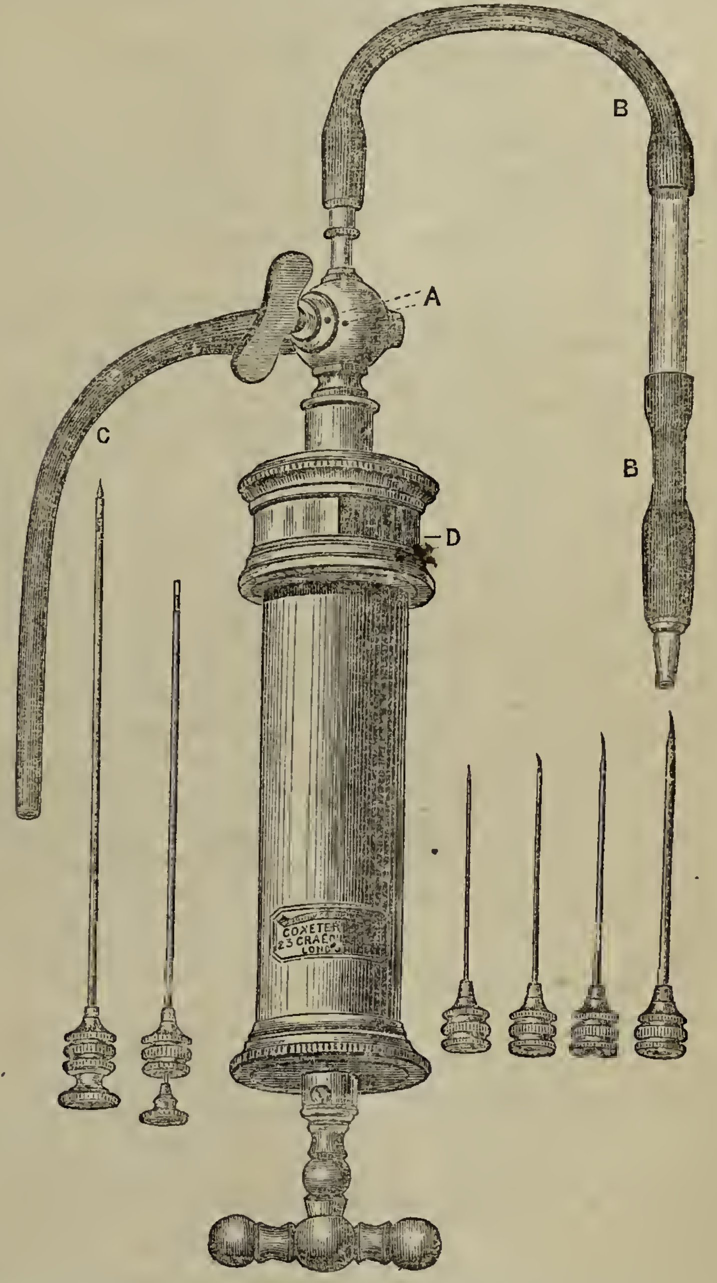
THE advantages which this speculum presents over Ferguson's glass silvered speculum are its non-fragility and its tapering form. It is easier of introduction, and the reflective and illuminating power is greatly increased; the opening being much wider, there is considerably more room for operations. The speculum has a trumpet-shaped external opening, the width of the instrument gradually diminishing from this to its smaller uterine aperture. The tube is suitably bevelled off at its uterine end, and the edges carefully rounded. It is made in three most useful sizes, and produced in two combinations of metals—one electro silver-plated and gilt at uterine end, and the other nickel silver-plated, which resists the action of acid, and will not tarnish. They are considerably lighter than any metal speculum hitherto introduced, and much cheaper. The price of a set of three, electro-plated and gilt, in morocco case, lined with silk, is thirty-five shillings.



This modification of Ferguson's speculum was suggested by Dr. J. Hall Davis, and is made by Messrs. Arnold and Sons, Smithfield.

COXETER AND SON'S ASPIRATOR.

SINCE the publication of Dr. Dieulafoy's treatise on Pneumatic Aspiration (Suction) as a method of diagnosis and treatment of collections of fluid in the cavities and tissues of the body, the aspirator has become a necessary weapon in the *armamentum* of every practitioner. By its use, the treatment of many serious diseases is simplified, and their mortality is lessened. Not only is diagnosis made more secure, but its results are more effective. Few surgeons can rise from reading that admirable treatise without the conviction that no surgeon is justified in treating strangulated hernia, pleural effusion, empyema, cystic disease, retention of urine, without correcting with the aspirator before resorting to the ultimate methods. In surgery, paradoxical as it may sound, operations are *opprobria*. The object of the surgeon is to avoid wounding; and, if cut he must, then to adopt the least harmful methods of wounding. Among these, the subcutaneous methods rank first. Aspiration by a suitably constructed instrument is a means by which pathological collections of fluid, pus, serum, urine, and collections of gas and fluid mixed, may be removed by a subcutaneous method, and with the least amount of traumatism. No one who has not read Dieulafoy's treatise can say how great this advance is; and its value at present is not fully recognised, in our opinion, mainly because not every one has yet mastered the clinical history of Dieulafoy's cases and results, and comparatively few possess an aspirator. When we have not read a book, and when we do not possess an instrument, how little are we disposed to appreciate the merits of the one and the capabilities of usefulness of the



other. Everything which tends to cheapen and simplify the instrument popularises the method.

We described not long since a method introduced by Mr. A. Godrich of West Brompton, by which the ordinary double-action stomach-pump can be economically converted, by a little device introduced by Blaise and Co. of St. James's Street, into an effective aspirator; and we welcome the new aspirator which Messrs. Coxeter have introduced as a very effective and beautifully constructed instrument, which is less complicated and less costly than those in use. It has the double injector movement, which is very necessary for the purpose of washing out cavities, and is altogether an efficient instrument.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 18TH, 1874.

THE VISITATION OF EXAMINATIONS.

I.

WE referred recently to the reports to the General Medical Council of the visitors of examinations as being documents of some importance, and not without piquancy. They have now passed under discussion in the Council, and a few extracts will not be without interest to our readers.

The report of the visitors to the Society of Apothecaries, London (Dr. Richard Quain, Dr. A. W. Barclay, and Mr. G. Busk), comes first. After reporting on the proceedings in detail, they conclude thus.

> Reviewing the examination as a whole, we are of opinion that it affords, when fully carried out, a fair test of the capacity of the candidate, and of his fitness for being placed on the register. But we cannot avoid remarking that the restrictions imposed by the Act of 1815 render it almost impossible for the Society to carry out a thorough system of examination. It is difficult, if not impossible, for any Court of Examiners to meet for a fresh examination every week, and yet to give each candidate on all occasions a fair opportunity for exhibiting his acquaintance with each of the many subjects on which he is examined; and we are of opinion that the time allowed for the writing of answers is not in proportion to the number and character of the questions proposed. An examination of the papers of the very best of the candidates shows that the answers are written in a hurried and superficial manner.
>
> Our attention was also unavoidably called to the want of due preparation on the part of some of the candidates. In some cases, his knowledge was evidently wholly superficial; in other cases, it appeared that the knowledge of anatomy, and especially of regional anatomy, which had been acquired with a view to passing the College of Surgeons, had been in a great measure lost in the few months which had elapsed since that examination; and, on the whole, the conclusion was forced on our minds that in many cases the system of instruction had lamentably failed in its main purpose of educating the student for the future practice of his profession.
>
> We may further remark that we were given to understand that the Society is precluded by its Act from testing the knowledge of the candidates in surgery; though this is one of the subjects included in the list which the Medical Council, at their meeting on June 7th, 1867 (see *Minutes of the Council*, vol. v, p. 238), decided should be required of every candidate for a licence to practise; and "without which no candidate should be allowed to obtain a qualification entitling him to be registered".

The next report is that of Dr. Parkes and Mr. Holmes on the first or primary examination of the Royal Colleges of Physicians and Surgeons of Edinburgh. There were only six candidates, and the reporters conclude thus.

> 1. We do not think that serious exception can be taken to the general course of the examination, its scope, and the questions put. It appears a fair test, if properly carried out, though certainly not a severe one. We have, however, some doubts whether the plan of putting three or four questions and receiving answers to only two or three is a proper one. The severe questions are avoided, and the extent of the examination is too much reduced.
>
> 2. There appears to us to be a defect in carrying out the scheme; viz., that the oral examiners do not appear to see the written papers. We doubt whether No. 6 candidate would have so easily passed the oral examination in chemistry if the examiners had had the opportunity of reading his answers, and of seeing the manner in which he replied to the questions on organic analysis. We think it would be better for the same examiners to conduct the whole of the examination.
>
> 3. In our opinion, the examiners very properly rejected all the five candidates, and we hope these gentlemen were not a fair sample of those who ordinarily present themselves. The answers in anatomy, though extremely poor, are the best, and it is plain that more attention had been paid to this subject than to physiology and chemistry. In these two subjects, the replies are simply lamentable, and show that two years' instruction in chemistry and physiology had not succeeded in giving to these candidates even the rudiments of knowledge. We cannot conceive that these gentlemen had been properly tested by class examinations, otherwise they would surely not have been allowed to undergo this examination for the conjoint licence of the two colleges.
>
> 4. Considering the small number of candidates, and the fact that all who went through the whole examination were rejected, we beg to recommend that the conjoint examination shall be again visited by two other visitors, to whom it might, perhaps, be proper to communicate this report.

As to the second or pass examination, they report: "We were not entirely satisfied that it is as good a test as it ought to be." And again: "There was an unusual number of rejections, but this, we are informed, arose from the exceptional inferiority of the candidates compared to those who usually present themselves." This exceptional number of plucks on both occasions at which the visitors were present (at an examination which they nevertheless pronounce to be an insufficient test) is certainly ominous and unpleasant. Dr. Parkes and Mr. Holmes recommend hereafter that the examinations shall be revisited by different visitors at some future time. The report on the examinations for the single qualification of the Royal College of Physicians of Edinburgh is satisfactory.

We propose next week to complete the review, and to comment on the reception with which these reports have met at the General Medical Council. Space this week forbids us to go further.

PASS AND PLUCK AT THE COLLEGE OF SURGEONS: THE FELLOWSHIP EXAMINATION.

III.

As by far the greatest percentage of rejections at any of the examinations has occurred at that for the Fellowship, it has naturally attracted the largest share of discussion. The diploma of Fellow cannot be looked upon in the same light as the mere member's diploma, qualifying for practising surgery. It is an honour, a badge of distinction, and not in any way necessary for the means of obtaining a livelihood. It was instituted in the first instance as a special mark of position for hospital surgeons and teachers; but an examination was subsequently demanded from its aspirants, preceded by an additional one in Arts, whilst some candidates under certain conditions were admitted to a modified professional examination without a preliminary test, or entirely exempted from both after a certain standing in the profession. The Arts Examination until lately was a very good one, requiring a considerable amount of reading; and we think that it should still be kept up to the level of the diploma to which it is preliminary. At present, it is meagre in the extreme, requiring an elementary knowledge of a few extra subects beyond those demanded from candidates for the membership, and is about on a level with the work done in the lower forms of an average private school.

With regard to the professional portion of the Examination, since the diploma of Fellow is the highest, or at all events is regarded as the highest, surgical degree, it is imperative on those who conduct it that it shall be rendered worthy of its position. We cannot complain that the papers are too stiff; they cannot be too searching; but in some few instances they appear ill chosen. The system of only giving four questions in each of both examinations is wrong in principle; for such an examination there should be a far wider range, and the *vivâ voce* should be somewhat more extended; and we would suggest, in the surgical portion of it, that candidates be required to write a commentary in addition to the so-called Clinical Examination, which, as it now exists, is frequently the merest farce.

As the diploma is supposed, then, to hold the leading position, and to require that its aspirants should be quite up to the known literature of their subject, we must recognise the fact that any weakness in the examining element must seriously affect the chances of the candidates, since it cannot be supposed that all the papers, nor all the answers given at the *vivâ voce* examination, come under the ken of those who represent modern research. We can well understand the difficulty some of the examiners must experience in reading up on the spur of the moment to adjudicate on the correctness or amount of knowledge shown by such candidates as come under their especial surveillance. The *incognito* which a number is supposed to afford has not always, we believe, made the difference which it should secure in the failure or success of candidates.

To the hospital surgeon or teacher, the diploma of Fellow is now an absolute necessity, and we find that most provincial surgeons of standing either have the diploma by election, or have taken it later on by modified examination, or have braved it boldly by their unaided efforts, or through the medium of a "coach", whilst their junior brethren usually "go down" with the well earned honour.

It is a "popular" examination with the better class of general practitioners, who, be it remarked, too frequently imagine that its possession gives them a better status—a status, we venture to think, rather confined to the opinion of professional people than the general public. In fact, as a rule, the public distinguish no difference between the diplomas of Member and Fellow, and, in instances which have come under our notice, often prefer the former, as having a more intelligible cognomen. Hardworking army and navy men, who *will* not lose sight of their profession, and who expect advancement by its possession, are amongst those who seek it, and often pass the best of examinations; and, lastly, the senior and best men of our medical schools present themselves almost *in statû pupillari*—the surest "fellow-making" material, by the way, of any.

Making all allowances for the alleged shortcomings on the part both of examiners and examined, we feel convinced that the nature of the examination must generally be very much misunderstood. If we take stock of the individual members of the mass who have for the last few years presented themselves, they may be thus divided: men really well up, with brains or plodding powers, or both; tolerable men, who risk it, who have been well up some time ago; and senior practitioners, who look upon the conferring of the diploma as an absolute right *because* they present themselves, and who imagine that anything they put down on paper, or anything they answer *vivâ voce*, *must* pass muster, who defy everything and everybody on account of the self-satisfied position they hold from having "made a practice". This class of candidates furnishes a singularly large amount of plucks. Many of the latter class come up for examination who most assuredly could not pass either the primary or pass for the membership as required at the present time.

A common cause of failure arises from those who are engaged in practice attempting too much—that is to say, coming up for the entire examination. Doubtless, the primary for the fellowship is to the generality of men, unless just fresh from their studies, by far the severest portion of it; and it is well in such instances to separate it. There is room for improvement in the conduct of the examination, which we think would be well modelled after that for the surgical degrees of the University of London, both with regard to the election of its examiners and its processes; and the teaching in the schools should be more advanced for those intending to offer themselves.

THE APPROACHING ANNUAL MEETING.

As the time for the approaching General Meeting of the British Medical Association at Norwich draws nigh, the indications that it will prove both profitable from a scientific point of view and pleasant in its social aspect, multiply with rapidity.

Names of distinguished professors of medicine and surgery who intend to attend the meeting and read papers are being sent in. Many foreign professors of eminence have also signified their intention of taking part in this annual congress of British medical science; and amongst the latest accession to their numbers are M. Péter, Professeur Agrégé of the Faculté de Médecine of Paris, and Dr. Auguste Voisin of the Salpêtrière Hospital. M. Péter will read communications on Accidents that may happen to Pregnant Women suffering from Disease of the Heart, on The Vagus Nerve, and on Tobacco Poisoning, in connection with accidents that may happen to mothers in the three functional departments of the pneumogastric nerve—pulmonary, cardiac, and gastric. He will likewise contribute a paper on the Use of the Plessigraph. M. Auguste Voisin has announced his intention of reading a paper on the Pathological Physiology of Lesions of Speech in the General Paralysis of the Insane.

Turning to the arrangements for the recreation and amusements of the expected visitors to the ancient and picturesque city of Norwich, we find that provision has been made for visits to the many and varied objects of interest in the city itself and the counties of Norfolk and Suffolk, which are rich in British, Danish, Roman, and Norman remains, and geological and botanical stations, besides many noblemen's and gentlemen's seats, and various interesting factories.

On Friday afternoon, parties of ladies and gentlemen (accompanied by gentlemen able to give information) will visit the Cathedral, when a paper will be read by the Rev. Henry Symonds; the Castle; some of the forty churches and objects of antiquity; the Waterworks, filtering beds and reservoirs; the Sewage-works and Farm; the County Lunatic Asylum at Thorpe; one or more of the crag pits; the Roman remains in Caistor, when a paper will be read; the Carrow Works, and other factories.

On Saturday, there will be excursions for ladies and gentlemen to Yarmouth and Lowestoft, in the neighbourhood of which are Burgh and Caistor Castles, Fritton Broad, etc.; to Wells, in the neighbourhood of which are Holkham, Walsingham Abbey, Binham Priory, and Castle Acre; to Cromer, in the neighbourhood of which are Blickling and Felbrigg Halls, Beeston Hills, etc.

Some members of the Norfolk and Suffolk Yacht Club have kindly placed their yachts at the disposal of the Committee to convey a party to Burgh Castle (the finest Roman remains in England) and to Yarmouth, if wind and tide serve. Geological and botanical excursions will be arranged if requested.

It is particularly requested that members intending to be present at this meeting should send their names to Dr. M. Beverley, 63, Great Giles' Street, Norwich.

THE EDINBURGH CHAIR OF PHYSIOLOGY.

It surely is time that the system of testimonial-begging, and the highly objectionable attitude of blowing their own trumpet which it forces upon a number of excellent and otherwise modest and dignified men of science, should have some check placed upon it. In the case of such important and highly competent bodies as the Universities, there can be no excuse for the maintenance of a system which is alike degrading and unsatisfactory to the candidate for an appointment, to the individuals who are asked to favour him with one of the usual "puffs", and to the electors to whom the collection of so-called testimonials is addressed. It clearly is the business of an electing body to ascertain *for themselves* what are the qualifications of a candidate who presents himself for election to a vacant post. The candidate should be distinctly forbidden to offer in support of his candidature any of those unctuous letters of recommendation which are as unpleasant to write as they are to read. In Germany, our testimonial system is regarded with the same feelings of wonderment and contempt as those until lately excited by our tests and our sinecure patronage appointments. When a post of importance is vacant in a German University, candidates are not even invited to apply, but the members of the governing body address an invitation to the man whom they consider most competent to undertake the duties of the position; and frequently, in order to obtain a particular individual, offer some special inducements in the way of increased salary or facilities for professorial study. A professor or lecturer in one school, who receives such an invitation from another, is often enough induced to remain where he is by the offer of increased salary or consideration. Such a system appears to us worthy of the dignity of science. It is precisely the reverse of what goes on in this country. The University or College in our case does not occupy the position of the beggar or purchaser of a valuable commodity; but it is the man of science who takes this position, and adopts the attitude and language of a pill-quack, or of a flunkey out of place, in order to get elected to a professorial chair. The explanation of such a condition of things lies partly in our national character, and partly in the fact that our Universities have never been thoroughly cleansed of the abuses of patronage and sinecures.

By all means, if an electing board find it necessary to ask persons who are willing to fill a vacant post to send in their names, let them do so; and we can see no objection to such persons stating plainly and straightforwardly facts bearing upon their fitness for the duties required, such as a list of works published and positions previously held; but that any man should be expected to gather together, and present for approval, all the polite things that have ever been said about him, and should even sit down and write to all sorts of persons with whom he is more or less acquainted, asking them to pay him some new compliments, is an insult to the self-respect of professional and scientific men.

We have been led to speak strongly on this subject by the perusal of a pamphlet issued by one of the candidates in support of his candidature for the Chair of Physiology vacant in Edinburgh. This document is a very marked example of the evils of the testimonial system.

THE Institution for Trained Nurses in the diocese of Salisbury has, it is stated, succeeded beyond expectation; and it is now proposed to raise £1500 to obtain a larger house, develope the work, and send more nurses to the poor.

AFTER long service as Assistant-Surgeons, Mr. Rouse and Mr. Cowell were promoted by the Governors of the Royal Westminster Ophthalmic Hospital, at their annual meeting on the 3rd instant, to the rank of Full Surgeons.

WE are compelled, from want of space, to postpone notice of the Annual Report of Mr. John Simon, F.R.S., as Medical Officer of the Privy Council and of the Local Government Board. As always, the report is interesting; but all sanitarians will grieve to see the small proportions to which this valuable report is shrunk.

WE had hoped before this to be able to publish a notice of Mr. J. F. Clarke's very interesting *Recollections of Professional Life.* They are among the most interesting reminiscences which we have read from the pen of a professional man; lively without effort, amusing without buffoonery, and full of personal judgments in which there is a blunt honesty which is quite free from bitterness.

ST. GEORGE'S HOSPITAL.

WE understand that Mr. Brodhurst has resigned the office of Orthopædic Surgeon to St. George's Hospital, in anticipation of the expiration of his term of office; and we believe that no fresh appointment to the post will at present be made.

THE DENTISTS AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Council of the College of Surgeons have acceded to the petitions of the dental profession to annul the old limitation of the years of grace; so that dentists in practice before 1858 will be able to present themselves for examination without a curriculum. This will probably lead to the increase of the number of Licentiates in Dental Surgery, and assist in improving the general tone and status of the dental profession. The exertions of Mr. C. J. Fox have done much to bring about this result.

THE FREDERIC BIRD MEMORIAL.

A MEETING, convened by advertisement, of the friends and former pupils of the late Dr. Frederic Bird, was held in the Board Room of the Westminster Hospital on the 6th instant to consider this proposal. It was unanimously determined that the memorial should take the form of a Prize Exhibition, or Scholarship, in connection with the Westminster Hospital Medical School. An influential Committee was formed, with Mr. Cowell as Honorary Treasurer and Dr. Potter as Honorary Secretary.

DEATH OF A PHYSICIAN.

DR. JOHN WILSON of Devonport has just died in consequence of a lamentable accident. While engaged at the Royal Albert Hospital in performing a *post mortem* examination, he unknowingly poisoned himself with morbific matter. On the following day, a small pimple appeared near his elbow, but it was not for some time evident what had occurred. His arm swelled to an enormous size, and he became in a most precarious condition. The best medical skill of the neighbourhood was of course in requisition; and, after some days of intense suffering, it appeared as if the poison had been successfully combated, his health improved, and everything seemed to indicate a speedy recovery, when, quite unexpectedly, he died in his sleep.

COTTAGE-HOSPITAL FOR WELLS.

IT has been resolved to establish a cottage-hospital for Wells; and a list of subscriptions has been opened, amounting to about £100, besides annual subscriptions to about £50. The Bishop has stated that £150 *per annum* will be requisite, and about £300 to begin with for a building.

THE "BUILDER" ON HOSPITAL SATURDAY.

"WE are asked", says the *Builder*, "to assist in this movement, having for its object, it is stated, the collection of subscriptions from the working classes for the benefit of the hospitals and dispensaries of the metropolis. We do not sympathise with it. Why should any attempt be made to separate the almsgiving of working men from those of other classes? It has been thought desirable to institute what is known as Hospital Sunday, and it seems to us something like an impertinence to suppose that working men who are disposed to give their aid will not do so unless a separate day be set apart for them."

HAYWARD'S HEATH ASYLUM.

THE fifteenth annual commemoration of the opening of the Sussex Lunatic Asylum will be held on Saturday, the 25th July. The programme of mental and physical recreation provided, both for visitors and inmates, is ample and complete. After having had the opportunity of seeing the afflicted inmates of the asylum partake of their holiday dinner, the guests will find luncheon provided for their own sustenance. Mr. Basil Young will give a musical and comic entertainment. Athletic sports and games of all kinds will vary the amusements, and the day will wind up with a grand tea *al fresco*. The household of the asylum, who are too fully occupied on the day of the *fête* to allow of its being an opportunity for their recreation, will have a ball on the 28th instant.

THE COLLEGE OF SURGEONS.

AT the annual meeting of the Council of the College of Surgeons, held on the 9th instant, the recently elected members of the Council were introduced. The election of office-bearers for the ensuing year took place; Mr. Le Gros Clark was elected President; and Sir James Paget, Bart., and Mr. Prescott Hewett were chosen Vice-Presidents. Mr. Henry Lee was elected Professor of Surgery and Pathology; Mr. W. K. Parker, Professor of Comparative Anatomy and Physiology; and Mr. Erasmus Wilson was again elected Professor of Dermatology.

HOW TO GET SUNSTROKE.

THIS, at least, appears to have been one practical lesson gained by the recent manœuvres at Chobham, according to general report; and if it were to bear ultimate fruit in the opposite direction, one might almost feel content that so many cases of sunstroke had to be recorded, though one, if not more, it is said, terminated fatally. Unfortunately, year after year, one hears through the public press, of casualties and deaths caused by the movements of troops in the extreme heat of summer, which, for the moment a source of regret, and thus regarded as the necessary accidents of a soldier's career, are soon forgotten. But, it may fairly be asked, are these annual casualties unavoidable? and the answer is scarcely doubtful, when referring to such occasions as the manœuvres of Wednesday, the 8th instant. It was a pretty sight to see the various regiments marching in quick succession over the hills; and perhaps few of those spectators who sought every available spot of shelter from the burning sun, thought of the trial those men were undergoing, and how many might be struck down; and probably as a representation of mimic warfare it was a very interesting spectacle. It is generally supposed that these manœuvres are specially intended for the instruction of the troops; and, if so, why should they be kept under arms for hours, in the tropical heat, when the same might take place in the early morning? and when an occasional public review is required, why cannot they be so encamped that a long march to and from the scene of action the same day may be avoided? Let us hope that this year's experience will not be forgotten, and that next summer's manœuvres will prove how not to get sunstroke.

SAUSAGES.

REVOLTING statements were made in a bad meat case heard by the Worship Street Police Magistrate lately. A sausage-maker of Hackney was charged with having in his possession a quantity of meat unfit for human food; and witnesses stated that some of the flesh found on his premises "smelt of physic", and that in one piece an ulcer or abscess, with matter oozing from it, was discovered. The defence was that the bad state of the meat was due to exposure in the sun; and the case was adjourned.—In connection with this unpleasant revelation, we are fain to recall the fact, that there are means employed, on the continent at least by which the manufacturer, in order to give colour to inferior soluble matters used for sausages, sometimes adds aniline to represent the colour of the blood. Sausage-meat thus tinted is charged with a substance which, habitually consumed, would prove very injurious to the health of the consumer; and, in addition, it may admit arsenic into the system as an accidental impurity of the aniline. To detect the fraud, the meat should be finely minced, and then digested with a mixture of alcohol and ether. In this solution, the aniline, if it be present, will be dissolved, and will give a tinted solution. Blood-colouring matter, on the other hand, if it alone be present, will not yield any soluble colour-stuff to the solution.

JUSTICE IN OTAGO.

AN account of a trial, instituted against a surgeon practising in Otago, New Zealand, for alleged malapraxis, has been forwarded to us for our opinion as to the magistrate's decision, which was given for the plaintiff. The facts are briefly these. The complaint states that the plaintiff, one Mr. Hunt, received an injury to his leg, and employed the defendant as surgeon to cure him; the defendant accepted and entered upon this duty, but so unskilfully and injudiciously treated him, that he was not cured until after a long delay. The damages were laid at first at £350, but the amount was reduced in order to bring the case within the jurisdiction of a resident magistrate; had not this been done, it would have been tried by jury. The great difficulty of forming any definite opinion as to a patient's condition from reading conflicting evidence on both sides is well exemplified in this case; hence a corresponding difficulty in determining as to whether the decision of the magistrate was right, considering the evidence; this, however, we are not called upon to do. After carefully reading the facts as reported *pro* and *con.* we rather incline to consider it the plaintiff's case; but we certainly cannot think that justice has been done our brother in the antipodes, for immediately the defendant's case was over, the magistrate says, "From the evidence in this case, I am of opinion that the defendant has not, in the treatment of the plaintiff, brought to bear that fair and competent degree of skill that should be brought to bear on such an injury. I will not animadvert upon the evidence now that I have stated my opinion; there can be no question as to the amount of the damages, and judgment will be for £100 and costs". It certainly appears to us to be a singularly arbitrary and unsatisfactory method of dealing with such a case, although we feel bound to state our own impression is that we give the defendant the benefit of a doubt, and we do not consider that the magistrate, by himself, had any right to decide whether the case was badly treated or not. The case should have gone for trial by jury.

THE ORTHOPÆDIC HOSPITAL, OXFORD STREET.

WE observe a very curious advertisement from the Orthopædic Hospital in Oxford Street, to the effect that "*a* surgeon is required to fill *a* vacancy". There are, however, we believe, four "vacancies" at this establishment for as many surgeons; and the circumstances under which these vacancies were made, and the very strong reasons why no self-respecting surgeons have been found to fill the vacant posts are still, we imagine, sufficiently fresh in the memories of young surgeons to prevent them from applying for the office. More than one unsuccessful effort has been made, we have heard, to induce young surgeons to accept the very unpleasant duty of acting under a board which insulted and wronged officers who had served it faithfully and gratuitously for a long series of years, and who had given to the hospital its usefulness and repute. No reparation has been made: one of the surgeons has passed away, but it would ill become any man to betray his profession by appearing as a suitor or acting as a servant of a board which has been equally persistent in its professional wrong-doing and in its impenitence. The modest demand for "*a* surgeon to fill *a* vacancy" in this off season no doubt indicates that the shoe pinches, but there is really no reason, and we hope no possibility, that any one will come forward until some reparation has been made for the transactions of April 1872. The board of the Orthopædic Hospital are counting too quickly upon the effects of the lapse of time; it is our duty to keep the memory of their acts green until something has been done to efface the recollection of them, or at least to attenuate their character.

THE LATE SURGEON-GENERAL BEATSON, C.B.

THE Indian medical papers report, concerning the late Dr. Beatson, C.B., who died at Simla of heart disease and pleurisy, on June 7, that he was buried on the following day with military honours, and the melancholy spectacle was witnessed by many natives, who crowded on the adjoining hills. Dr. Beatson's death is widely regretted, and the Government of India have already put on record their appreciation of his services, and sorrow at his death. Alluding to his official position as Surgeon-General and principal medical officer to the British forces in India, the Viceroy says:—"Dr. Beatson has twice, in the course of a long and honourable career, filled the highest post in the Britsh medical service in India, with credit to himself and advantage to the State, and the Government of India sincerely lament the loss of this valuable public servant." We have already paid a tribute to the services and character of this distinguished officer.

CATERHAM ASYLUM.

ON Saturday this asylum, which is one of the London sick-poor asylums erected under Mr. Gathorne Hardy's Act of 1867, underwent the annual official inspection by the managers. The remarkable feature of the extensive buildings is that, built upon one of the large range of hills of the Caterham part of Surrey, and standing alone on what was a sterile common, it has satisfactorily solved the problems which vex municipal corporations in regard to water and gas supply, the profitable use of sewage, and the advantageous employment of the imbecile patients. There are now 1,848 patients in the asylum—800 men and 1,048 women, and, with the staff and attendants, there are nearly 2,000 inhabitants. The cases to be admitted to this and Leavesden are supposed to be the poor imbecile class which in former days made up the very mixed assemblage of what were called the London "workhouses". As a fact, the parish officers do not confine themselves to sending only such cases, for as there is an advantage to the parishes to have patients in the asylum instead of in the workhouse, some part of the expenses for them coming out of the Common Poor Fund of the metropolis, persons who are imbecile from age and some who have to be removed to lunatic asylums are also brought. Two persons lately died there, aged respectively 93 and 91. Several of the patients were found to be quite intelligent, and inquiry showed that these were improving cases, who, under the influences here exercised, with the watchful care of skilled medical attendants, had been restored to health and rendered profitable members of society. Some were so well as to lead friends or guardians to urge their speedy discharge; but where this had been done too hastily, or where the patients when discharged had been troubled by want of work, they had come back as bad as ever. All these improved cases spoke thankfully of the care bestowed upon them. By the use of the sewage on what was a rocky common, the stony waste has been turned into corn-fields; and by this economy, the manufacture of its own gas, the raising of its own water, and the purchase of the stores in the open market in place of contracting, and the employment of the patients, reduce the cost of the poor to a *minimum*. At the end of the inspection, the managers expressed their satisfaction to Dr. Adams (the medical officer), Mr. Younger, Mr. White (the steward), Mr. Crickmay, to the matron, and the other responsible officers, for the manner in which their duties had been fulfilled.

THE PUBLIC HEALTH.

DURING last week, the annual death-rate was 17 per 1,000 in Edinburgh, 28 in Glasgow, and 26 in Dublin; whilst in the eighteen largest English towns the rate ranged from 16 per 1,000 in Sunderland to 30 per 1,000 in Liverpool. In London, the rate was 20 per 1,000; and the 1,293 deaths included 241 from the seven principal diseases of the zymotic class. These 241 deaths were 119 below the corrected average number from the same diseases in the corresponding week of the last ten years, the fatal cases of each disease being below the average. The deaths referred to diarrhœa in Lindon, which in the six previous weeks had increased from 21 to 86, further rose last week to 122. Although 19 less than the corrected average number in the corresponding week of the last ten years, these figures compare unfavourably with the numbers in the twenty-seventh week of 1871-2-3, when they were but 39, 61, and 68, respectively. The 122 last week included 101 of infants under one year of age. To simple cholera and choleraic diarrhœa, the deaths of 2 adults and of 6 infants and young children were referred. The widow of a general dealer died on the 7th instant in Sadler's Hall Court, Houndsditch, from "natural decay", whose age was stated to be 102 years. The mean temperature of the air at the Royal Observatory, Greenwich, was 66.8 deg., and 5 deg. above the average for the corresponding period in fifty years. The mean differed but slightly from the average on the first three, whereas a considerable excess prevailed on each of the last four days of the week. On Thursday and Friday, the mean was 74.3 deg., and the excess 12.6 deg. The thermometer in the shade on Thursday rose to 92 deg.—a higher reading than any during 1872 or 1873. On Friday and Saturday, 1.32 inches of rain were measured.—Amongst foreign cities, the greatest percentage of deaths occurred at Berlin, where 765 deaths were recorded, including 107 from diarrhœa, and showing a rate of 48 per 1,000.

A WEST-END VICAR ON PROVIDENT DISPENSARIES.

A FEW weeks ago, we gave an extract from Canon Thorold's annual address to his parishioners, in which he urged the adoption of the provident system of medical relief. We are glad now to be able to lay before our readers the following paragraph from a pastoral letter, recently published by the Hon. and Rev. R. Liddell, Vicar of St. Paul's, Knightsbridge.

"The report of our local dispensary for the last year was very satisfactory. An endeavour was made to encourage and promote the provident system amongst the poorer classes by checking as much as possible the issue of free letters of recommendation. The result which the committee hoped by this measure to obtain has been fully realised, as may be seen by the following retrospect of the last three years:—

	1871.	1872.	1873.
Enrolled members...	1084.	1251.	1366.
Payments..............	£54 8s. 5d.	£68 10s. 9d.	£96 0s. 8d.
Cases relieved.........	1966	2239	2533

This effort to raise our people more and more out of mendicant habits is therefore thus far highly successful.

"And here I cannot but express a wish that there were a better understanding between our various dispensaries and the hospitals. By the present system of admission of out-patients, it is practically impossible for the authorities at the hospitals to know about the circumstances and means of applicants. Were such referred, in all ordinary cases, to their local provident dispensary, the officers of the latter would know, or on inquiry readily find out, whether such could or could not pay the small premium charged to patients for advice. The hospitals would thus be relieved from the burden and expense of a great number of trivial cases, while the dispensaries would recommend for hospital treatment all cases of a more serious character. This suggestion has been made in a largely-signed memorial to the authorities of St. George's, but as yet without any practical result."

SCOTLAND.

DR. J. BELL PETTIGREW, F.R.S., of Edinburgh, has, we are informed, had the good fortune, to obtain one of the three or four prizes annually awarded by the French Academy of Sciences, Paris, for physiological discoveries.

GARTNAVEL ASYLUM: ELECTION OF SUPERINTENDENT.

AT a meeting of directors on the 14th instant, Dr. Yellowlees, Superintendent of the Glamorgan County Asylum, was elected Superintendent of the Asylum at Gartnavel. The votes were equal for Dr. Yellowlees and Dr. Robertson; but the Lord Provost, who was in the chair, gave his casting vote to Dr. Yellowlees.

ROYAL AND WESTERN INFIRMARIES OF GLASGOW.

THE final blow has been given to the attempt at an amalgamation of these two hospitals. There has been a good deal of reported negotiating, but on Monday last the directors of the old infirmary resolved that it was neither expedient nor in the interests of either institution that there should be an amalgamation. This conclusion has been long foreseen and expected in Glasgow; and, in the interests of the new hospital, we think it is not to be regretted. The Royal Infirmary is a pattern of good management, but it is quite a large enough concern to be superintended by one board, and might possibly be crippled by being tacked to a new and distant institution. The one difficulty which the scheme of amalgamation was mainly intended to obviate is the competition for subscriptions among the public, which some dreaded. But we feel sure that there is sufficient generosity and public spirit in Glasgow to meet the current expenditure of both places without any serious difficulty. The new hospital is now far advanced towards completion, and it is to be hoped that it may be ready for clinical teaching in the ensuing session.

DEGREES IN PUBLIC HEALTH.

IT is announced that the Court of the Edinburgh University has determined to add a department of public health to the list of subjects in which degrees may be obtained at that University. The great demand for medical officers of health, and the importance which electing bodies attach to such credentials of a University as testify to the possession of special information in a department of science, are assigned as the reasons for the establishment of the new degree. As in the case of medicine, the University will grant both a bachelor's and a doctor's degree. The former will be given after two written, oral, and practical examinations, separated by an interval of five months. The degree of doctor will, after the lapse of a year from the time of graduation of a bachelor, be given to such men as send in a satisfactory thesis on a special subject, and produce evidence that they have been engaged in sanitary work in the interval. The examiners for the degrees will be appointed by the University Court. The first examination for the degree of Bachelor of Science in the department of public health will embrace the subject of chemistry, including the analysis of air and water, and the detection, chemically and microscopically, of adulteration of food, drink, and medicines. In physics, it will demand a knowledge of subjects relating to sewerage, drainage, ventilation, etc., of meteorology and of mensuration; an acquaintance with the leading Sanitary Acts of Parliament, and a knowledge of the methods and data relating to vital statistics, will also be required. For the second examination for the degree of bachelor, a well selected synopsis of the knowledge which the candidate must possess is published by the University Court. In medicine, endemics, epidemics, and epizootic diseases must be studied in relation to their origin, nature, propagation, and prevention. The geographical distribution of disease, the influence of overcrowding and unhealthy trades must also be investigated; and with regard to practical sanitation, the probationary health-officer must be familiar with the problems of water-supply, the sanitary requirements of public and private buildings, the disposal of public waste, and the selection and management of cemeteries, the suppression of manufacturing nuisances, the regulation of food-supply, the provisions against zymotic diseases, the uses of quarantine, the nature and employment of disinfectants and deodorisers, and the construction of permanent and temporary hospitals.

IRELAND.

THE authorities of the King and Queen's College of Physicians have forwarded to the General Medical Council copies of a scheme for a Conjoint Examining Board.

HER Grace the Duchess of Abercorn visited Dr. Steevens's Hospital on Wednesday. She was accompanied by Dr. Burke, Her Grace's Physician, who is, as our readers are aware, Consulting Physician to the hospital. Her Grace was received by the members of the medical staff, Dr. Grimshaw and Messrs. Hamilton and McDonnell, and was conducted through the various wards by Mrs. Evans, the matron of the institution. Her Grace seemed to take a great interest in the patients, with many of whom she conversed, and expressed herself well pleased with the arrangements of the institution and the comforts provided for the patients.

SMALL-POX.

SMALL-POX has again increased in Belfast; the cases in the Union Hospital for the week ending July 4th, amounting to fifty-eight, thirty-three fresh cases of the disorder having been admitted, and five having proved fatal during that period. Vaccination is evidently not carried out in a proper manner, as shown by the fact that the town for a very considerable time past has never been exempt from this malignant malady.

PURIFICATION OF THE LIFFEY.

THE plan for the abatement of the Liffey nuisance, which was offered to be completed free of expense by Sir John Arnott, and which was brought last week under the notice of the Corporation and the Port and Docks Board, has, we regret to say, been rejected, the engineer of the latter body having styled the proposal as impracticable. As a refusal has been made of a scheme which well-instructed parties consider a most desirable one, and as no temporary expedient has been recommended by those bodies who are interested to an extraordinary degree in the gigantic undertaking of purifying the river by the plan of intercepting sewers which they seem determined to uphold in spite of all opposition, and inasmuch as the civic authorities will not interfere themselves, nor permit anyone else to find a remedy, it has been suggested that a requisition should be presented to the High Sheriff of Dublin, requesting him to convene a meeting of the citizens to urge the Lord-Lieutenant to take immediate action in the matter.

THE DUBLIN UNIVERSITY REGISTER.

A MASTER IN SURGERY writes to us: "With reference to the advice of your Irish correspondent, viz., that all Dublin medical graduates of M.D. or A.M. standing should place their names on the register of voters for the University, it would be well to remind all Masters in Surgery, who are Bachelors in Arts of three years' standing, that they are entitled to a vote, and to all other privileges enjoyed by those who have taken the degree of Master in Arts, without further expense."

UNIVERSITY OF DUBLIN.

AT an examination, held on July 1st and 2nd, 1874, the Medical Scholarships, value £20 *per annum* for two years, were won by Messrs. William Blunden and William A. Booker. Mr. John Flood, who obtained third place, was recommended to the Board of Trinity College as deserving of an additional Scholarship which lapsed last year. Mr. Theodore Stack, M.B., Scholar of Trinity College, has been awarded a Supplemental Surgical Travelling Prize, value £50, in accordance with the recommendation of the Court of Examiners. The Senior Medical Exhibitions have been awarded to Messrs. Charles Young, Alexander J. Mac Laughlin, and John Dorman.

CASE OF HYDROPHOBIA IN DUBLIN.

A FINE little boy, between four and five years of age, died on Sunday morning, in Steevens's Hospital, from Hydrophobia. He was bitten on the face by a dog in the Phœnix Park, on June 24th, and the hydrophobic symptoms exhibited themselves on Saturday, the 11th instant, on the evening of which day his mother brought him to the hospital. An elder brother was bitten at the same time, but the bite in the latter case was through the clothes, which, it is hoped, may have had the effect of protecting the child from the effect of the bite. The last case of hydrophobia admitted into Steevens's Hospital was nearly thirty years ago. One of the most distressing points about the case was that, the few hours during which the poor little sufferer lived, were spent in the use of the foulest and most abusive language imaginable. We understand that the parents of the child were most estimable, steady, hard-working, sober people, and that the little fellow's mother attributed his state of moral degradation to his school associates. We need scarcely state that there is but little prospect of sanitary, physical, or moral reform among persons brought up like this unfortunate child. We hope and believe such examples are rare in Dublin, and trust that the attention of the inspectors of the Irish Board of National Education has been directed to the subject.

LIMERICK COUNTY LUNATIC ASYLUM.

THE following appears in a Dublin morning paper, usually noted for its accuracy.

> *Management of County Lunatic Asylums.*—The county Limerick grand jury have adopted a report of a committee appointed by them, demanding that two thousand harmless and miserable lunatics be transferred from the asylum to the unions to which they belong; and the grand jury also adopted a resolution requesting the local representatives to urge upon Parliament the propriety of placing lunatic asylum boards on a footing with the Poor-law boards, so that the ratepayers may exercise more direct influence over the expenditure of these establishments.

We find, on referring to the report of the Irish Census Commissioners for 1871, that there were in that year only three hundred and eighty-five lunatics and twenty-three idiots, total four hundred and eight, confined in asylums in the county and city of Limerick. The total number of lunatics and idiots in the county and city were only seven hundred and seventy; and there seems to be some serious error in the above statement calculated to raise considerable alarm, and induce the public to believe that some of the patients in question have been transferred, not "to the unions to which they belong", but to the county grand jury.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Injection of Hydrate of Chloral into Veins.—Removal of Foreign Body from the Bladder by Perinæal Lithotrity.—Mountebank Children.

DISCUSSION has been going on for some time at the Academy of Medicine, *à propos* of the production of anæsthesia by the injection of the hydrate of chloral into the veins as a substitute for chloroform in surgical operations. It will be remembered that, on May 29th, 1872, M. Oré of Bordeaux submitted a paper to the Surgical Society of that city, proposing the above substitution. At that time, he injected two, then three, four, and up to six *grammes* of hydrate of chloral in solution, and insensibility was produced to such a degree, that no excitant or stimulant except electricity could in any way affect it. It must be observed that these experiments, which were made on animals, had to be tried on man before this new mode of anæsthetisation could be introduced into practice. As very frequently happens, by a remarkable combination of circumstances, an opportunity was afforded for verifying or disproving experimental researches. This had just occurred in a patient who was admitted into hospital under M. Oré's care, with severe crush of the extremity of the middle finger of the left hand, which was followed by confirmed traumatic tetanus. M. Oré twice injected, at intervals of a few minutes, a solution of nine *grammes* of chloral to ten *grammes* of water, and the patient, after the second injection, fell into a profound sleep; the respiration was calm and regular; the pulse 70; the muscular rigidity completely disappeared, and the extent of insensibility produced allowed the surgeon to practise avulsion of the nail of the affected finger without causing the slightest manifestation of pain on the part of the patient. The day following, the injection was repeated, and on the third day the tetanus was considerably relieved. These facts were laid before the Academy of Sciences in February last; but the Society of Surgery in Paris soon took up the question, which gave rise to an animated discussion for and against the new method. The points at issue were the following. 1. Does the hydrate of chloral cure tetanus? 2. Is the injection of hydrate of chloral into the veins the safest or surest way of administering the drug? I need not here enter into the arguments brought forward, as a full account will be found in the proceedings of the Surgical Society of Paris. On June 2nd, the subject was brought before the Academy of Medicine, where it was received with as much disfavour as at the Surgical Society and the sister Academy. On this occasion, M. Vulpian related the result of several experiments that he had performed on animals, with a view of elucidating the question of the injection of chloral into the veins. Out of sixty subjects experimented on, M. Vulpian discovered that three were affected with considerable hæmaturia, which took place during the injection. This induced M. Chauffard to protest loudly against the experiments being tried on the human subject as being most dangerous and unjustifiable; and M. Blot, another member of the Academy, condemned the adoption of the new method proposed by M. Oré, in the following terms. The result obtained by M. Vulpian ought not to allow surgeons to hesitate to reject an operation so dangerous as the injection of chloral into the veins as a means of producing anæsthesia, as he considered chloroform much safer for such purposes. M. Blot gave the Academy to understand that his protest was simply the echo of that of the Society of Surgery, which unanimously condemned M. Oré's proposition. So the subject may be considered closed, at least for the present.

About twelve months ago, I gave an account in the JOURNAL of what M. Dolbeau terms "perinæal lithotrity". He lately had occasion to perform this operation, or rather, a modification of it, on a patient at the Beaujon Hospital; not, however, for stone, but for the extraction of a foreign body from the man's bladder. The case is a very interesting one, as it is very rare to meet with an object of such a size that had been introduced through the urethra into the bladder of a human being. But the interest of the case consists less in the nature and size of the foreign body in question, than in the indications which resulted from its presence. The subject of the case was a man aged 55, and the foreign body referred to consisted of a pipe of an enema-syringe. The foreign body had slipped through the urethra into the bladder four days before his admission into the hospital. During two days, the patient suffered no inconvenience either in the urinary apparatus or in his general condition; but, on the third day, micturition became difficult and painful, and the urine was altered in colour and consistence, though never tinged with blood. After allowing the patient to rest for two days, M. Dolbeau introduced a stone-crusher into the bladder; the foreign body was seized without difficulty, but all attempts to break it up proved fruitless. M. Dolbeau, finding this impracticable, resolved upon removing the body by an opening through the perinæum. The patient being put under the influence of chloroform, M. Dolbeau introduced the catheter into the bladder; this was retained in position by an assistant, while two others held the thighs against the pelvis and wide apart. The surgeon then made an incision fifteen to twenty *millimètres* (0.6 to 0.8 inch) long on the median line of the perinæum; this incision, which involved the raphe, commenced about a *centimètre* in front of the anus. After having ascertained the exact situation of the groove of the catheter, M. Dolbeau cut down upon it, and through this opening he introduced the double lithotome into the bladder. The catheter then being removed, the blades of the lithotome were separated in such a manner as to make an incision which was not to exceed twenty *millimètres*. M. Dolbeau then introduced through this opening the "tenette" or forceps, with which he proceeded to extract the foreign body, when he met with some difficulty which prevented its removal with this instrument, as it seemed to lie transversely at the neck of the bladder, thus presenting itself by its longest diameter. After having ascertained the exact position of the foreign body by the introduction of the index finger through the wound, and having at the same time discovered the nature of the obstacle, the surgeon introduced a sound into the urethra, and thus pushed back the foreign body to the fundus of the bladder. This enabled him to seize it and extract it without any more difficulty. The pipe measured about three *centimètres* in length, and was made of bone. This was thickly incrustated with calcareous matter about its middle, which necessarily increased its bulk, but leaving the two extremities free. The patient was then removed to his bed, and no other dressing but cold lotions was employed. The result of the operation was most favourable, as the patient had no fever nor any other complication; the temperature of the body ranged from 37 degs. to 37.4 degs. C. (98.6 degs. Fahr. to 99.32 degs. Fahr.); the appetite was unaffected, and the patient's nights were good. The wound in the perinæum continued to heal kindly, and on May 25th last, just a month after the operation, it was completely closed, micturition being effected by the natural passage, and on June 1st the patient left the hospital perfectly cured.

M. Dolbeau took the opportunity of making some practical remarks on the case. There are two methods, he said, of removing foreign bodies from the bladder: extraction by the natural passages, and extraction by an artificial one. The first is particularly applicable to women, on account of the shortness and dilatability of the urethra; but, in men, the numerous inflections and the great narrowness of the canal permit the surgeon to have recourse to this passage in cases only where the foreign body is small and flexible; such, for instance, as a gum elastic catheter, or even a piece of metal, provided it be soft and pliable, like that with which hair-pins are made. When the body is rigid, however fine or small it may be, the surgeon can hardly seize it by its extremity; it will, therefore, be impossible to make it follow the course it took in its passage into the bladder. The difficulty is, moreover, increased by the calcareous incrustations which take place in a few days on the foreign body, of which the case under notice affords a remarkable example. Until now, the artificial opening for the removal of foreign bodies was effected by the lithotomy operation; but M. Dolbeau, true to his principles, states that his operation (perinæal lithotrity) ought to be adopted in preference, as foreign bodies in the bladder are always of small calibre, but are most frequently of some length. By M. Dolbeau's operation, it is easier to ascertain the position of the foreign body by introducing either the finger or an exploring instrument into the bladder by the opening effected; the body may then be seized by one of its extremities, and withdrawn lengthwise without any difficulty, although the opening is comparatively small. Medio-lateral lithotomy (*la taille médio-latéralisée*), according to M. Dolbeau, would seem to be intended for cases of this sort; the advantages of the operation consisting of the smallness of the external incision, which does not involve the vessels or neighbouring organs; the internal incision, though practised in the urethra instead of in the bladder, is sufficiently large to admit the finger, and the wound, owing to its small size, heals much more rapidly and kindly.

In my last, I mentioned that a law had been passed by the National Assembly regulating the age at which children and youths may be employed in the factories and workshops, as well as the amount of work that could be exacted from them. In following up this philanthropic idea, the National Assembly has interested itself on behalf of another class of children and youths, who are not the less deserving of this solicitude of all paternal governments that would have any pretensions to such a title. I allude to the unfortunate class of mountebanks and others who are employed for the amusement of the public. Owing to the accidents (many of which have proved fatal) which have occurred at the unnatural exhibitions to be witnessed at the circuses of children being placed in the most unheard of attitudes, their limbs being in many instances subjected to a series of permanent or incurable dislocations, another law has just been voted, prohibiting parents from exposing their children to these inhuman practices under the age of twelve; and other exhibitors are not allowed to enlist children in their service under the age of sixteen. This, it is to be hoped, will in some measure put a stop to the cruelties to which these unfortunate children are subjected. *A propos* of this new law, I have heard it remarked that it has not been voted a day too soon, as laws for the protection of animals have long been in existence in all civilised countries.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-SECOND ANNUAL MEETING.

THE Annual Meeting of the British Medical Association will be held at Norwich, on Tuesday, Wednesday, Thursday, and Friday, August 11th, 12th, 13th, and 14th, 1874.

President—Sir WILLIAM FERGUSSON, Bart., F.R.S., Surgeon to King's College Hospital, London.

President-elect—EDWARD COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

An Address in Medicine will be given by J. RUSSELL REYNOLDS, M.D., F.R.S., Physician to University College Hospital.

An Address in Surgery will be given by W. CADGE, Esq., Surgeon to the Norfolk and Norwich Hospital.

An Address in Obstetric Medicine will be given by JAMES MATTHEWS DUNCAN, M.D., F.R.S.Edin., Lecturer on Midwifery and Diseases of Women and Children in the School of Medicine, Edinburgh.

The business of the Association will be transacted in four Sections, viz.:—

SECTION A. MEDICINE.—*President:* Dr. Eade, Norwich. *Vice-Presidents:* Dr. Sydney Ringer, London; Dr. Durrant, Ipswich. *Secretaries:* Dr. Bradbury, 59, Corpus Buildings, Cambridge; Dr. Lowe, King Street, King's Lynn.

SECTION B. SURGERY.—*President:* Sir James Paget, Bart., F.R.S., London. *Vice-Presidents:* T. W. Crosse, Esq., Norwich; Dr. Macnamara, Dublin. *Secretaries:* F. Worthington, Esq., Lowestoft; Reginald Harrison, Esq., 38, Rodney Street, Liverpool.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Churchill, Dublin. *Vice-Presidents:* Dr. W. S. Playfair, London; Dr. Steele, Liverpool. *Secretaries:* Dr. Edis, 23, Sackville Street, London; F. Image, Esq., Westgate Street, Bury St. Edmunds.

SECTION D. PUBLIC MEDICINE.—*President:* W. H. Michael, Esq., London; *Vice-Presidents:* Dr. Bateman, Norwich; Dr. Ransome, Bowden. *Secretaries:* Dr. Bond, Gloucester; Dr. Leech, Manchester.

The Honorary Local Secretaries are:

Dr. J. B. PITT, Norwich.
H. S. ROBINSON, Esq., Norwich.
Dr. BEVERLEY, Norwich.

TUESDAY, *August 11th.*

10.30 A.M.—CATHEDRAL SERVICE.
1 P.M.—MEETING OF COMMITTEE OF COUNCIL.
3 P.M.—MEETING OF THE COUNCIL, 1873-74.
8. P.M.—GENERAL MEETING—President's Address, Annual Report of Council, and other business.

WEDNESDAY, *August 12th.*

9.30 A.M.—MEETING OF COUNCIL, 1874-75.
11.30 A.M.—SECOND GENERAL MEETING.
11.30 A.M.—ADDRESS IN MEDICINE, by Dr. RUSSELL REYNOLDS, F.R.S.
2 to 5 P.M.—SECTIONAL MEETINGS.
9 P.M.—SOIRÉE AT ST. ANDREW'S HALL.

THURSDAY, *August 13th.*

9 A.M.—MEETING OF THE COMMITTEE OF COUNCIL.
10 A.M.—THIRD GENERAL MEETING—Reports of Committees.
11 A.M.—ADDRESS IN SURGERY, by WILLIAM CADGE, Esq.
2 to 5 P.M.—SECTIONAL MEETINGS.
6.30 P.M.—PUBLIC DINNER.

FRIDAY, *August 14th.*

10 A.M.—ADDRESS IN OBSTETRIC MEDICINE, by Dr. MATTHEWS DUNCAN.
11 A.M.—SECTIONAL MEETINGS.
1.30 P.M.—CONCLUDING GENERAL MEETING.

EXCURSIONS.—The Excursion Committee will make arrangements for the convenience of members and their friends wishing to visit the factories and places of interest in the city and neighbourhood during the meeting, and for parties of ladies and gentlemen to do so on Friday afternoon.

On Saturday, there will be excursions to geological and botanical stations and places of antiquarian and general interest in Norfolk and Suffolk.

The Honorary Secretary will endeavour to arrange for gentlemen well acquainted with the locality to accompany the parties on Friday and Saturday.

Any information will be given by Mr. H. B. FRANCIS, St. Clement's, Norwich, Honorary Secretary to the Excursion Committee.

Members of the Association will receive cards for the above proceedings, evening meetings, etc., at the Reception Room, Assembly Rooms, Norwich.

ANNUAL MUSEUM.

The seventh annual Museum of the British Medical Association will be held at the Assembly Rooms, and will be open daily from 10 A.M. till 6 P.M., on August 11th, 12th, 13th, and 14th, for the exhibition of the following objects.

1. Latest inventions in medical and surgical instruments and appliances of all kinds.
2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids.
3. General pathological specimens; with photographic models, drawings, etc., illustrating disease.
4. Urinary calculi; with drawings or diagrams of urinary disease, and of operations on the urinary organs. Also instruments with diagrams, etc., illustrating the history of the operation of lithotomy from the earliest periods up to the present day.
5. Drawings, diagrams, or models illustrating the ventilation of hospitals and private dwellings.
6. Microscopic pathological specimens.

The following is a list of the Museum Committee; to any member of which communications, etc., may be addressed—Mr. William Cadge, *Chairman*, 24, St. Giles' Street, Norwich; Mr. Francis Sutton, London Street, Norwich; Mr. Jonathan Hutchinson, 4, Finsbury Circus, London, E.C.; Mr. Joseph Allen, Tombland, Norwich; Mr. Francis Fowke, 37, Great Queen Street, London, W.C.; Mr. Chas. Williams, 9, Prince of Wales' Road, Norwich; Mr. J. R. Baumgartner, Norfolk and Norwich Hospital; Mr. Charles Firth, *Hon. Sec.*, 65, St. Giles' Street, Norwich.

NOTICE TO EXHIBITORS.—Application to be made as soon as possible, at the same time giving a list of objects, and mentioning the space required. Each object to be accompanied by a printed or written description, or reference, for insertion in the Catalogue; and it is important that these descriptions should be sent *as early as possible*—viz., not later than July 28th.

All parcels to be delivered on or before August 4th, and to be removed within three days after August 14th. They must be addressed "British Medical Association, care of C. Firth, Esq., Assembly Rooms, Norwich". All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be enclosed in each package, ready to be fixed on the outside.

N.B.—Specimens of disease and calculi which have been exhibited at former meetings cannot be received on this occasion.

Communications to be addressed to CHARLES FIRTH, Esq., St. Giles' Street, Norwich, the Secretary for the Museum Department.

Papers.—The following papers have been promised.

Ogle, J. W., M.D. 1. Cases of Tumour of the Cerebellum; 2. Cases of Adenomatous Tumours within the Thorax.

Fothergill, J. Milner, M.D. The Systemic Indications of Chronic Bright's Disease.

Gowers, W. R., M.D. Cases of Convulsions from Organic Brain-Disease.

Ferrier, D., M.D. The Localisation of Function in the Brain.

Eade, Peter, M.D. A Disease of Carpenters.

Mackenzie, Morell, M.D. On the Ætiology of Bronchocele.

Anningson, Bushell, M.B. On the Ætiology of Infectious Diseases.

Thompson, J. Ashburton, Esq. General Remarks on the Internal Administration of Free Phosphorus.

Bradbury, J. B., M.D. Notes of Six Cases of Hydatids of the Liver treated by Puncture.

Hicks, J. Braxton, M.D., F.R.S. On the Adaptation of the Galvanic Cautery to Gynæcology.

Wright, Frederick W., M.D. On Decollation as a Mode of Delivery in Arm-Presentations.

Ross, James, M.D. On the Action of Mercury.

Smart, W. R. E., M.D., C.B., Inspector-General of Hospitals and Fleets. On the Relative Frequency, the Causes, and Modes of Suicidal Attempts in the Navy and Army.

Fox, Cornelius B., M.D. Water-Analysis; as it should and as it should not be performed by the Medical Officer of Health.

Thornton, W. Pugin, Esq. On the Indications for Tracheotomy afforded by the Laryngoscope.

Baker, J. Wright, Esq. Case of Lithotomy: the Nucleus of the Stone being a Broken Piece of Elastic Catheter.

Thorowgood, J. C., M.D. On the Nature of the Asthmatic Paroxysm.

Matthews, J. Duncan, M.D. Laboratory Note: On the Tensile Strength of the Fœtus.

Cormack, Sir John Rose, M.D. Diphtheritic Paralysis.

Cormack, Sir John Rose, M.D. Successful Resection of the Shoulder-joint in Case of Gunshot Wound.

Althaus, J., M.D. On some Forms of Spinal Exhaustion, and their Treatment by the Constant Galvanic Current.

Drysdale, Charles R., M.D. On Dysmenorrhœa.

Braidwood, P. M., M.D. On Cerebro-Spinal Concussion.

Clapperton, James, Esq. Maternal Impressions.

Buchanan, George, M.D. Some Points in the Anatomy and Surgery of Talipes Varus.

Barwell, Richard, Esq. A New Method of treating Chronic Strumous Synovitis, more especially of the Knee.

Harrison, Reginald, Esq. When, and for how long, should Mercury be used in the treatment of Syphilis?

Beverley, M., M.D. Hospital Hygiene, illustrated by references to the Norfolk and Norwich Hospital in the past, present, and future.

Rumsey, H. W., M.D., F.R.S. The Correlation of Sick Poor Relief and Public Health Administration.

Haviland, Alfred, Esq. The Geographical Distribution of Disease within the area of the combined Sanitary Authorities of the Counties of Northampton, Leicester, Rutland, and Berks.

Bond, Francis T., M.D. 1. On a New Form of Disinfectant; 2. On an Improved Form of Dry Closet; 3. On a New Method of dealing with House-Slops in rural districts.

Higgens, Charles, Esq. On Muscular Asthenopia.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above-named officers *on or before the 1st of August.*

No paper must exceed *twenty* minutes in reading; and no subsequent speech must exceed *ten* minutes.

All speeches at the General Meeting must not exceed *ten* minutes each.

Francis Fowke, *General Secretary.*

General Secretary's Office, 37, Great Queen Street, W.C.,
June 25th, 1874.

METROPOLITAN COUNTIES BRANCH.

The twenty-second annual meeting of this Branch will be held at the Banqueting Hall, Alexandra Park, on Monday, July 20th, at 4 P.M.: President for 1873-74, Richard Quain, M.D., F.R.S.; President-elect for 1874-75, T. B. Curling, Esq., F.R.S.

At 5.30 P.M. precisely, the members will dine together; T. B. Curling, Esq., F.R.S., in the Chair. Tickets, fifteen shillings each (including ices, tea, coffee, and attendance, but exclusive of wine).

A. P. Stewart, M.D.,
Alexander Henry, M.D., } *Hon. Secretaries.*

London, June 24th, 1874.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The annual general meeting of the above Branch will be held at Aberdeen, on Saturday, July 18th, at 2 o'clock.

Intimation of particulars will be made to the members by circular.

Alexander Ogston, *Honorary Secretary.*

CUMBERLAND AND WESTMORLAND BRANCH.

The annual meeting of the above Branch will be held at Carlisle, on Wednesday, July 29th, 1874.

Gentlemen intending to bring forward communications, are requested to give immediate notice.

Henry Barnes, M.D., *Honorary Secretary.*

Carlisle, June 30th, 1874.

NOTICE OF SPECIAL GENERAL MEETING.

Notice is hereby given that, in accordance with Law 20, a Special General Meeting of the Association will be held at Norwich on Thursday, the 13th day of August next, immediately on conclusion of the Address in Surgery, for the purpose of considering the resolutions necessary for the incorporation of the Association.

Francis Fowke, *General Secretary.*

37, Great Queen Street, London, July 9th, 1874.

WEST SOMERSET BRANCH.

The annual meeting of this Branch will be held at the White Hart Hotel, Milverton, on Thursday, July 23rd, at 2.30 P.M., under the presidency of H. W. Randolph, Esq.

The President will be happy to see gentlemen, and offer them refreshments, at his house before the business of the meeting commences.

The Chair will be taken at 2.30 P.M.

Dinner at the White Hart Hotel will be served at 5 o'clock.

W. M. Kelly, M.D., *Honorary Secretary.*

Taunton, July 7th, 1874.

CUMBERLAND AND WESTMORLAND BRANCH: SPRING MEETING.

The Spring meeting of this Branch was held at the Keswick Hotel, Keswick, on Thursday, June 4th. The President of the Branch, Dr. Tiffen of Wigton, took the Chair at half-past twelve o'clock.

New Member.—James Irving Lau, L.R.C.P.Ed., L.F.P.S.Glasg., was elected a member of the Association and Branch.

Extension of the Branch.—The acting Secretary, Dr. Maclaren, read the report of the Branch Extension Committee as follows.

The Committee appointed at a meeting of this Society held at Penrith on October 29th, 1873, to make the necessary preliminary inquiries regarding the feasibility of extending the limits of the Branch so as to include members of the profession residing in the adjoining Border Counties, beg to report as follows.

1. That, in reference to the accompanying circular, twenty members of the medical profession residing within the adjoining Border Counties, will be glad to join the proposed Border Counties Branch of the British Medical Association.

2. That, in the opinion of your Committee, this response is a sufficient justification for them to give notice of certain alterations in the rules of the Branch which will enable the Society to extend its limits. Robert Tiffen, *President;* J. A. Campbell, M.D.; Roderick Maclaren, M.D.; Henry Barnes, M.D., *Secretary.*

The President moved that the report be adopted and entered upon the minutes. Dr. Knight seconded the motion, and it was agreed to unanimously.

The President gave notice of certain alterations of rules necessary for extending the limits of the Branch.

On the motion of Dr. Henry, seconded by Dr. Taylor, the Branch Extension Committee was reappointed, to consider the alteration in the rules and to report.

Report on Public Health Section.—A letter on this subject was read from Dr. Page, Kendal; and, after some discussion, it was agreed to defer the consideration thereof until the annual meeting.

Papers.—The following papers were read.

1. Dr. Michael Taylor (Penrith) related a case of Extrauterine Pregnancy, which was illustrated by the preparation and by a coloured drawing. A young woman died after twelve hours illness from rupture of the sac of a tubal fœtation, and consequent internal hæmorrhage. The interest of the case lay in their being a simultaneous uterine and extrauterine pregnancy, the fœtus in the former case showing a development of three months; that in the Fallopian tube answering to eight weeks. The question was, whether the smaller size arose from want of vascular supply and tight packing, or whether it was not an instance of superfœtation at a second ovulation period.

2. Dr. Green (Kendal) contributed Further Observations on the Treatment of Diphtheria. The paper was read by Dr. Maclaren. Five years ago, the author brought before the notice of the Society a few cases of diphtheria treated by rest in bed, light diet, hot linseed poultices externally, and a mixture of carbonate of ammonia and chlorate of potash internally, without any local application whatever to the affected surfaces. The present paper gave a record of seven cases treated in the same way and with satisfactory results. The author claimed for the carbonate of ammonia and chlorate of potash mixture a distinctly curative power over diphtheria, cutting it short and rendering the pa-

tient less liable to sequelæ. The improvement was generally manifest on the second day, but the treatment must be continued until every shred of membrane has disappeared. Relapses were apt to occur unless this was done, and they generally proved more obstinate than the first attack. The doses varied according to age, from two and a half to five grains of the carbonate of ammonia, and five to ten grains of chlorate of potash every two hours.

Dr. KNIGHT (Keswick) read a note of a Case of Enlarged Glands simulating Hernia. A woman, aged 43, in usual health, was suddenly seized with severe pain in the bowels and groin, with sickness and vomiting, thirst and quick pulse. The bowels were usually regular, but had not responded to a dose of castor-oil, and had not acted for thirty-six hours. On examination, a small tense and painful tumour was found at the femoral opening on the left side; careful manipulation afterwards, under chloroform, produced no change in the swelling, and disclosed the existence of an enlarged gland at the inner side. Attention was directed to an old standing ulcer over the left ulna, and faint red lines were traceable downwards from the tumour. There was some tenderness in the popliteal space. An enema relieved the bowels. An opiate was administered, and warm fomentations ordered to the groin. At the next visit, the symptoms of intestinal irritation were gone, while the tumour was larger and more brawny, and the signs of adenitis quite distinct. The diagnosis in such cases might be cleared up by exploratory incision if symptoms of strangulation of bowels persisted for many hours. In this case, the local symptoms were so evidently inflammatory from the first, that operation did not seem called for. An interesting point was that lymphatic glands did suddenly inflame, and if in this situation might produce all the symptoms of a strangulated hernia. This was mentioned by sone authorities as a possible element of difficulty in diagnosis.

Dr. MACLAREN read notes of a case which had been admitted into the Carlisle Fever Hospital under the care of Dr. Barnes, and which during life closely simulated enteric fever in temperature, pulse, and the condition of the bowels. In addition to the symptoms of enteric fever, the patient complained of most acute pain in his groins, thighs, and knees, which was aggravated by an attempt to straighten the legs. He died on what was believed to be the thirty-third day of his disease, and the following was the condition ascertained to exist on *post mortem* examination. The intervertebral substance between the fourth and last lumbar vertebræ was gone; the bodies of each of these bones was hollowed out, and contained loose sequestra; communicating with this cavity were two abscesses containing dark brown fluid; these lay over each psoas muscle, and extended from the lower ends of the kidneys to the insertion of the muscles; the iliac vessels and sciatic nerves were dissected from their connections by the matter. The pelvic bones and the head of each femur were blackened, and the periosteum could be separated with extreme ease. The large bowel had some small ulcers near the cæcum, but Peyer's patches were quite healthy. A preparation of the fourth and fifth lumbar vertebræ, of the bones of the pelvis, and of the head of each femur, was exhibited to the meeting.

Dinner.—At the conclusion of the meeting, the members and their friends dined together.

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the Music Room of the Pavilion, Brighton, on Thursday, June 25th. More than sixty members were present.

The chair was taken by the retiring President, E. GARRAWAY, Esq., of Faversham, who, after a few remarks, introduced his successor, G. F. HODGSON, Esq., of Brighton.

President's Address.—The PRESIDENT, in taking the chair, delivered an address, in which he referred to the improvements which had taken place in Brighton since the meeting of the Branch there in 1864: to medical charity and its abuses; to the water-supply and drainage of Brighton; to the former abuse of mercury; to the advances in medical electricity; and to the prosperous condition of the Branch and the Parent Association.

Votes of Thanks.—Mr. W. WALLIS moved that the best thanks of the meeting be given to the President and Vice-Presidents for their valuable services during the past year. He had not had the pleasure of attending their last annual meeting, but, from what he had heard, he was assured that the carrying out of the duties of President could not have been put into better hands than those of Mr. Garraway; and he was sure they would all heartily join in thanking him, especially for the great deal of valuable time which he had sacrificed in their behalf. They were highly delighted that his mantle had fallen upon such shoulders as those of their old friend Mr. Hodgson, and had to congratulate him upon his succession to the office. [*Applause.*]

Mr. R. INNES NISBETT seconded the motion, which was unanimously carried.

Dr. TYACKE proposed that the best thanks of the meeting should be given to the President for his able, interesting, and instructive address. Mr. Hodgson was known among them as one of the hardest working men belonging to their Society, and they were glad that in his successor to the secretaryship they had got a gentleman competent to maintain the reputation of that office.

Mr. R. BRANWELL seconded the proposition. Having known Mr. Hodgson for many years and enjoyed his intimate friendship, he could say that the mantle of Mr. Garraway could not have fallen upon more excellent shoulders than his. He hoped that the remarks which fell from his lips with reference to indiscriminate charity, unpaid medical appointments, and the insufficient payment of parish medical officers would make an impression upon that meeting, and not only so, but through the press upon the public. It was not generally known that the medical officers of their charities were, as a rule, entirely unpaid for their services; and it was also, perhaps, unknown, although it might be very well known by those who took the trouble to inquire, that parish medical officers were shamefully ill-paid.

Dr. CONSTANTINE HOLMAN, in supporting the motion, remarked that the present satisfactory financial condition of the Association was due to the indomitable perseverance of their President. [*Hear, hear.*]

The proposition was put to the meeting by the Honorary Secretary, and carried unanimously.

Report of Council.—Dr. PARSONS, Honorary Secretary, read the annual report. The Council again congratulated the members upon the continued prosperity and usefulness of the South-Eastern Branch. Last year the list at the annual meeting numbered 338 members; of these, 13 had since withdrawn from the Branch, 3 had been removed by death, and 1 had been struck off the list as a defaulter, thus reducing numbers to 321. On the other hand, 50 new members had been enrolled, and of these one had died, leaving a total of 370. Since the last annual meeting, the Council had specially to deplore the loss of the valuable services of the honorary secretary, Mr. Hodgson, who for the past five years had devoted his best energies to the affairs of the Branch, and had contributed in no small degree to its welfare and development. The Council had appointed as his successor Dr. Parsons of Dover, late secretary of the East Kent District. The vacancy thus created had been filled up by the appointment of Mr. E. W. Thurston of Ashford to the East Kent District. Dr. Lanchester, after being honorary secretary of the East Surrey District for eight years, had been also compelled by increasing engagements to resign his office; and the Council expressed their cordial acknowledgment of the valuable services he had rendered the Branch. Most of the districts showed signs of life and energy as well by their frequent meetings as by the new members which they from time to time added to the Branch. The Council were glad to welcome as new members of the South-Eastern Branch the medical officers of health of two large and important combined districts in Kent; the officer for the combined district in Sussex already belonged to its ranks. It was hoped that the Surrey sanitary district would also be represented during the current year. For several years, the Association had increased at the rate of 400 or 500 members *per annum*; last year, 1,000 new members joined. It was satisfactory to add that upwards of 90 per cent. of these had remained permanent members of the Association. New Branches of importance had been formed in South Hants and the North of Scotland, and one was in process of formation in North Staffordshire. The report then gave a summary of the Parliamentary Bills Committee of the Association with regard to—1. The position of the medical officers of the army and navy; 2. The Registration of Births and Deaths, and the Protection of Infant Life; 3. The amelioration of the Education of Midwives, and the best means of subjecting them to control. Another subject which required attention was the disposition of the surplus. The balance in hand in 1872 was £52 : 14 : 3; in 1873, it had reached £60 : 16 : 9; and this year it attained to £79 : 13 : 8. It would be for this meeting to determine to what purposes, if any, it should be applied. The average growth of income over expenditure during the last six years was about £6 *per annum*. From observations made at the last annual meeting, the Council gathered that several plans for the disposal of the surplus found varying degrees of favour with the members. After giving each scheme most careful consideration, the Council had decided to recommend this meeting to subscribe the sum of £25 to the British Medical Benevolent Fund. This would leave the sum of £54 : 13 : 8 to be carried to the credit of the Branch for the ensuing year.

Dr. W. WITHERS MOORE moved that the report of the Council should be adopted. All were anxious that their brethren in the army and navy should have their interests properly attended to; and with such a military and naval Parliamentary representation as they had, these would doubtless be cared for. The circumstance that they had a large surplus would be matter for discussion; but, viewing this Association as one numbering many members and having for its great object the interest of the profession, he felt strongly that in the report there was a great want of interest shown in the provincial medical man. [*Hear, hear.*] He thought that his interests had been overlooked. The question of gratuitous medical advice, the question of provident dispensaries, the present charges, recollecting the high rise of all the necessaries of life, were subjects worthy of consideration. It was useless, he thought, for them to talk about Parliamentary reforms; let their reforms begin at home. All gratuitous medical advice should, he maintained, be done away with. They had only to be true to themselves. There was no other profession, no other trade which was not; not that he wished this Society to descend to the position of a trade union, but he did think that they were bound to look after those who had not the time, position, and money to look after themselves. He held that they should consider in the future how they could better the position of their poorer brethren. [*Applause.*]

Mr. WALTER seconded the motion, which was agreed to.

Financial Statement.—The HONORARY SECRETARY then read the financial statement, of which the following is an abstract:—Receipts: Balance in hand, June 23rd, 1873, £60 : 16 : 9; subscriptions, £78 : 4; total, £139 : 0 : 9. Expenditure: Expenses of last annual meeting, £9 : 9 : 6; printing, stationery, stamps, etc., £17 : 16 : 3; East Kent District expenses, £5 : 0 : 9; West Kent, £2 : 10 : 7; East Sussex, £3 : 4 : 2; West Sussex, £1 : 15 : 6; East Surrey, £2 : 18 : 6; West Surrey, *nil*; honorary secretary's expenses for journeys, etc., £14 : 11 : 3; sundries, £2 : 2 : 4; total, £59 : 7 : 1; leaving a balance in hand of £79 : 13 : 8.

Mr. W. J. HARRIS moved that the financial statement be received and passed. He regarded it as most satisfactory, and he could not see that there could be any objection to £25 of the balance being handed over to the Benevolent Fund. It was for the benefit of those who belonged to the members of the medical profession, and from his own knowledge he knew that much good had been accomplished by means of the fund.

Mr. JOSEPH DIXON seconded, and the motion was carried.

The Medical Benevolent Fund.—The PRESIDENT moved that £25 be handed over to the Benevolent Fund. The Fund, though not now under the direction of the officers of the Association, was administered in the most economical manner, while the persons who benefited by it were spared the expense of canvassing.

Dr. W. WITHERS MOORE seconded, and suggested whether it would not be for the benefit of the Association if the annual subscriptions were reduced from 25s. to 21s. With many young practitioners, who had a hard struggle to fight their way, the question of the additional 4s. would, perhaps, prevent them from becoming members, and it was desirable that they should get as many members as possible.

Dr. C. HOLMAN said that he originally opposed the proposition to increase the subscription from £1 : 1 to £1 : 5; but it now appeared that the increase of members had been greater since the subscription had been enlarged; and it should be recollected that the larger sum placed more money at their disposal for such purposes as assisting the Benevolent Fund, etc. Knowing something of the manner in which this fund was dispensed, he heartily supported the proposed motion to add to it; what was given from it was given as quietly and unostentatiously as possible, and only the initials of the recipients were allowed to transpire, the greatest delicacy being shown for their feelings.

The PRESIDENT said that the increase in the numbers only brought in about £6 more *per annum*, so that it would not be advisable for them to reduce the subscription.

Mr. WALTER was most willing that they should help the Fund all they could, but he believed that the original subscription of £1 : 1 was better than £1 : 5, and moved that it be reduced to the first-named amount.

The PRESIDENT, however, after referring to the rules, decided that Mr. Walter's motion was not in order.

Mr. NAPPER thought the surplus money they had could best be applied in enlarging the BRITISH MEDICAL JOURNAL, the space of which was frequently insufficient for the material at the disposal of the editor.

The motion having been supported by another member, was unanimously agreed to.

Representatives in the General Council.—The HONORARY SECRETARY reported that the following members had been elected representatives in the General Council of the Association for the ensuing year:—John Armstrong, M.D. (Gravesend), James H. Aveling, M.D. (London), R. L. Bowles, Esq. (Folkestone), Sir J. Cordy Burrows (Brighton), John M. Burton, Esq. (Lee), Alfred Carpenter, M.D. (Croydon), W. Carr, M.D. (Lee), Edward Clapton, M.D. (Southwark), Edward Garraway, Esq. (Faversham), G. F. Hodgson, Esq. (Brighton), Alfred Hall, M.D. (Brighton), J. Braxton Hicks, M.D., F.R.S. (London), Constantine Holman, M.D. (Reigate), W. Withers Moore, M.D (Brighton), Albert Napper, Esq. (Cranleigh), Thomas Heckstall Smith, Esq. (St. Mary Cray), Nicholas Tyacke, M.D. (Chichester), J. R. Wardell, M.D. (Tunbridge Wells), and Charles Parsons, M.D., Honorary Secretary.

Vote of Thanks to Council.—Mr. MARTIN proposed, Dr. CUNNINGHAM seconded, and it was unanimously resolved, that the thanks of the meeting be given to the Council, the Auditors, and the Scrutineers, for their efficient services during the past year.

Secretary.—Mr. E. GARRAWAY proposed the re-election of Dr. Charles Parsons as Secretary. When Mr. Hodgson resigned that office, he began to think that the Branch would almost fall to pieces; but he was pleased to find that in Dr. Parsons they had a most able and energetic Secretary, who carried out his duties to their entire satisfaction.

The proposition was seconded, and carried unanimously; and Dr. PARSONS, in responding, expressed a hope that the members would look over his shortcomings, and credit him with every desire to carry out his duties efficiently.

Place of Meeting for 1875: Election of Officers.—Mr. NAPPER moved that the place of meeting next year should be Guildford; and that Dr. Stedman (Guildford) should be President-elect, and Dr. Brushfield (Brookwood Asylum) and Mr. Butler (Guildford) should be the Vice-Presidents.

Dr. AVELING seconded; and the motion was agreed to.

Council of the Branch.—The following gentlemen were elected members of the Branch Council for 1874-75: C. O. Baylis, M.D. (Tunbridge Wells), John Bostock, Esq. (Horsham), Thos. M. Butler, Esq. (Guildford), Thos. S. Byass, Esq. (Cuckfield), J. M. Cunningham, M.D. (Hailsham), J. Cooper Foster, Esq. (London), Richard Gravely, Esq. (Newick), G. W. Grabham, M.D. (Earlswood), Chas. C. Hayman, M.D. (Eastbourne), John Lee Jardine, Esq. (Capel), Horace Jeaffreson, M.D. (Wandsworth), H. T. Lanchester, M.D. (Croydon), Blackall Marsack, Esq. (Tunbridge Wells), S. Monckton, M.D. (Maidstone), Major K. Robinson, Esq. (Dover); J. S. Turner, Esq. (Anerley Road), W. Wallis, Esq. (Hartfield), Edw. F. Fussell, M.B. (Brighton).

Visit to the Aquarium, etc.—By the kindness of their respective directors, the Aquarium and the Suspension Pier were opened to the members of the Association free of charge, and between forty and fifty of them visited the former place, Mr. Henry Lee having kindly undertaken to explain to them the habits and characteristics of the fish, etc. The Town Free Library, Museum, and Picture Gallery, the County Hospital, and the Workhouse were also recommended for inspection, and many of the members availed themselves of the opportunity of going over those establishments.

Dinner.—The members, to the number of between sixty and seventy, afterwards dined together in the Music Room; Mr. Hodgson, President of the Branch, in the chair.

CORRESPONDENCE.

THE PATHOLOGICAL EXAMINATIONS AT THE COLLEGE OF SURGEONS.

SIR,—A small work has lately been published, entitled *A Guide to the Examinations at the Royal College of Surgeons of England*, the intention of which appears to be to frustrate, as far as lies in its power, the main object for which the Council of the College has long been striving in instituting practical examinations. During the past and present week, I have observed in the pathological galleries of the museum many students industriously "reading up" in this work the descriptions of certain preparations, stated to constitute the "examination series" used at the pass examinations for the membership and fellowship of the College.

It is naturally a source of satisfaction to me to see so much diligence bestowed upon any portion of the collection; but I think it right to give a friendly warning to the gentlemen referred to, that it would be wise to extend their studies beyond the range of the ninety-five specimens described in the book, as the choice of the Court of Examiners is by no means restricted to them. It has been hitherto, and probably will be in future, the practice of the Court to change from time to time the material used for testing the practical acquaintance of candidates with the appearance of morbid structures; and the 4,600 preparations in the museum afford ample variety for this purpose. I am, etc., W. H. FLOWER.

GLASS SYRINGES IN THE VAGINA.

SIR,—It is very creditable to get broken glass syringes out of the vagina without damage to the patient or to the practitioners, but why did they allow their patients to use such instruments? Were it not that you have lately recorded two cases in which a glass syringe had broken in the vagina, and a third case in which death followed this accident; were it not that I am occasionally consulted by patients who have been told to inject a weak solution of acetate of lead or of alum into the vagina, by means of a glass syringe, to cure uterine ulceration, I should not think it worth while to enter a protest against the recommending of such instruments to patients. The danger attending the use of glass syringes for vaginal injections is evident, and their utter uselessness is no less clear; for, while the injection of two or three ounces of a solution of acetate of lead or alum can have little effect on a diseased womb, much good may be done by the injection of one or two pints of a similar solution, by means of one of the India-rubber syphon syringes sold by all chemists. Their price need not prohibit their use; for an efficient syphon syringe can be bought at any India-rubber shop for six shillings. A glass syringe should only be used by the practitioner himself, when he wants to act on the vagina by a strong solution of nitrate of silver, or some similarly potent medicine.

I am, etc., EDWARD J. TILT.

60, Grosvenor Street, July 1874.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

VACCINATION PROSECUTIONS.

THE Board of Guardians of Mile-end Old Town, at a recent meeting, adopted the report of a committee as to prosecutions for non-vaccination, with special reference to the provisions of the Vaccination Act, under which "there is no limit to the number of prosecutions in respect of the same child, nor to the time over which such prosecutions may extend".

The select committee of the House of Commons, appointed to inquire into the operation of the Vaccination Act, 1867, expressed the opinion, with regard to repeated convictions and penalties to which the parent was liable, that "whenever, in any case, two penalties or one full penalty had been inflicted upon a parent, the magistrate should not impose any further penalty in respect of the same child". The House of Lords, however, struck out the clause mitigating the penalties, notwithstanding it had been received with some favour by the House of Commons. The Board express their concurrence with the view taken by the Upper House, in the following reasonable and temperate terms: "Whilst we (the Board) consider that the compulsory powers of the Vaccination Acts should not be enforced with unnecessary hardship, we are of opinion that no hard and fast line, as to the number of prosecutions that should take place against one individual ought to be adopted, but that every case should stand upon its own merits, and be dealt with by the Board of Guardians as circumstances may dictate."

Of the wisdom and justice of this determination of the Board, there can be no question. The enforced mitigation of the penalties would simply afford encouragement and comparative immunity to those rare and exceptional cases in which eccentric fanatics and "peculiar people" persistently set at defiance a law essential to the public safety. It has been abundantly shown in the working of the Acts, that neglect to comply with their provisions is almost in every instance the result of indifference, negligence, or procrastination, and not of any strong feeling of opposition to vaccination itself; and, therefore, in the hands of an intelligent and energetic vaccination officer, it is rarely necessary to do more than to threaten proceedings against careless or unwilling parents.

In some of the most populous districts in which vaccination is carried out as thoroughly as, perhaps, is attainable (Liverpool), it is but very rarely found necessary to summon parents and guardians for non-compliance with the law; nevertheless, the power to enforce compliance could not be safely dispensed with. There is one statement in this report to which we would direct attention. "The committee of the Metropolitan Asylum Board, specially appointed to examine the returns obtained from the several small-pox hospitals, reported in July 1872, that there had been admitted into the various hospitals 14,800 patients suffering from small-pox; that in vaccinated cases the death-rate ranged from one to ten and a quarter per cent., whereas, in non-vaccinated cases, the death-rate averaged forty-four and four-fifths per cent."

VACCINATION BY DEPUTY.

WE desire to express our sympathy with our correspondent at Woburn who complains of the action of the Board of Guardians anent the vaccination arrangements of the district where he resides; but we feel we can offer him but poor consolation. It is always held that when a gentleman takes a vaccination appointment, that the duty should be performed personally, and not by deputy, and no amount of skill or attention on the part of such deputy would justify the retention of an office the duties of which were systematically performed by some one else; nor do we believe that the fees are legally recoverable if the Board of Guardians should decide not to pay them, however harsh such an act might be. We do not believe, now that the subject has been so distinctly raised, also that our correspondent's partner will be permitted to retain his office It would be better, therefore, for him at once to resign, ere he be compelled; then, if our correspondent chooses to apply for the appointment, we doubt not, highly qualified as he evidently is to hold the office, that the Board of Guardians would be induced to give it to him.

THE CIRCULAR LETTER OF THE LOCAL GOVERNMENT BOARD AND POOR-LAW MEDICAL OFFICERS.

IN reply to our correspondent (at Middlewich), who desires to learn, first, whether Poor-law medical officers are at present compelled to make a return to the medical officer of health as to the existence of contagious, infectious, or epidemic diseases in their respective districts; and, secondly, whether there is any Bill at present before Parliament which will render it compulsory on union medical officers to fill up such forms as the one he has sent us without receiving any further remuneration,—we have to express our belief that, if the Local Government Board had possessed the power to compel Poor-law medical officers to perform this additional duty, a general order (which has the force of law) would have been issued instead of the circular letter, in which the Local Government Board only "recommend that the guardians should request the Poor-law medical officers to give to the medical officer of health, etc., acting within their respective districts, the earliest possible information of cases of dangerous infectious disease under their charge", and which circular letter possesses no such authority. We therefore hold that Poor-law medical officers can legally refuse to comply with such request; and we would advise them to do so generally, unless reasonable remuneration be granted for such additional duty. As regards our correspondent's second query, we are not aware that the Local Government Board is seeking for such powers. In conclusion, we would remind our correspondent that we stated last week that Dr. Lush intended to move for the circular letter, and to make a statement to the House thereon; and we would advise that not only our correspondent, but that all Poor-law medical officers similarly situated, should put themselves in communication with that gentleman without delay.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL SURGEONS.

A NAVAL MEDICAL OFFICER in a ship stationed abroad writes to us:

I have to express my thanks to the British Medical Association and to the Chairman of the Parliamentary Bills Committee, Mr. Ernest Hart, for the very determined manner in which they have fought for the rights of the Naval Medical Officer. If candidates will refrain from coming forward at the ensuing August examination, the Admiralty will have only Hobson's choice before them, and give way they must. I think their niggardliness proceeds, as a rule, not from any dislike or jealousy of our class, but rather from an unwholesome fear of spreading discontent amongst the other lines forming the civil division of the navy. Things cannot go on with constant and increasing resignations, and the list of surgeons is already fifty short. The three great things required are increase of pay, retirement after twenty years' service, and lieutenant's rank on entry. It is absurd for a medical graduate twenty-six years old, on entering the service, to rank with the youngest sub-lieutenant, a mere boy, and to enter the ward-room in naval parlance as "Boots". The assistant paymaster enters the ward-rooms from the gun-room with four years' seniority, is of the same age, or more often much younger, than the lately entered surgeon, and is consequently his senior officer. It is derogatory and lowering in the extreme to a man's university for one of its graduates to enter the service under the present existing circumstances. The chaplain and naval instructor rank on entry as lieutenants; and I think that it is less degrading for an university man to drive a hansom cab than to enter the service with his present relative rank.

NAVAL MEDICAL APPOINTMENTS.

STAFF-SURGEON (second class) Walter Reid, M.D., from half-pay, to H.M.S. *Royal Adelaide*, additional, for service at Plymouth Hospital, in lieu of a surgeon, *vice* Davis, superseded on promotion.

Staff-Surgeon (second class) John Lee Sands, M.D., from half-pay, to H.M.S. *Thetis*, *vice* Magill, invalided.

Surgeon M. F. Ryan, from half-pay, to H.M.S. *Coquette*, *vice* Allen, invalided.

Surgeon E. W. Doyle, from H.M.S. *Orwell* to H.M.S. *Bullfinch*, commissioned.

Staff-Surgeon (second class) J. F. Parr, from half-pay, to H.M.S. *Northumberland*, additional, in lieu of a surgeon, *vice* Bain, sent to hospital.

Mr. John Hole has been appointed Admiralty Surgeon and Agent for Torcross Coastguard Station and Hallsands Detachment, Devon, new appointment.

OBITUARY.

JOHN H. BROXHOLM, M.D.

On June 22nd, at Sunbury, Middlesex, died John Horton Broxholm, M.D. Aberdeen, and L.S.A., third surviving son of the late Robert Broxholm, surgeon, aged 48. He studied at Guy's Hospital. His late father practised at Sunbury between forty and fifty years, and was succeeded by his eldest son Mr. Robert George Broxholm, who died eighteen years ago, when his brother Dr. J. H. Broxholm took the practice, succeeding also as medical officer to the union. His loss is deeply regretted in the neighbourhood.

THOMAS EDWARD BOWKETT, L.S.A.

Mr. T. E. Bowkett was born January 29th, 1804; left early in life to his own resources, he managed, by hardwork and untiring perseverance, to pursue a course of study, and qualify himself to practise medicine. He commenced practice in Poplar, about the year 1833, and soon acquired a considerable practice, but his passion for politics, and a desire to interest himself in the welfare of the working classes, engaged a large share of his attention. He was the originator of building societies bearing his name. He was a man of considerable mental capacity, and a good linguist. He had a slight attack of pneumonia about a week before his death; this was followed by choleraic diarrhœa, which resulted in his death on June 15th.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, July 10th, 1874.

Militia Medical Officers.—Sir E. Wilmot asked the Secretary of State for War whether he was prepared to state what were the intentions of Her Majesty's Government with regard to the filling up of vacancies in the medical staff of militia regiments, seeing that, according to the *Army List* for June, there are six surgeoncies and twenty-four assistant-surgeoncies vacant? and whether the Government was prepared to compensate those surgeons who can show up to the present time any loss or hardship, as promised by Lord Cardwell, that individual cases of such should be "fairly considered"?—Mr. Hardy said that all appointments had been suspended until the regulations with respect to the *status* and pay of militia medical officers were issued. Those regulations were now in preparation, and would shortly be issued. He had the opportunity the other day of seeing a deputation of those officers, and gave them the same information as he now gave to his hon. friend. As to the question of compensation, he could only repeat what he had said before, that each case would be considered carefully on its own merits.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 9th, 1874.

Davies, John, Westminster Hospital
Hay, William Alfred Edward, Bridport, Dorset
Heald, George Henry, Leeds
Hitchins, Thomas John, Plymouth
Lyddon, William Reeks, Clapham
Newton, William Thomas, Lakenhall, Suffolk

The following gentlemen also on the same day passed their primary professional examination.

Cotton, Herbert, Guy's Hospital
Kyngdon, Frederick Henry, London Hospital

Erratum.—In the list of successful candidates at the primary examination at Apothecaries' Hall, published in the Journal of July 11, "Edward Manley Rodwell" should be "Edward Manby Rodwell".

MEDICAL VACANCIES.

The following vacancies are announced:—

ARMY MEDICAL DEPARTMENT—Surgeons. Applications, 10th August, to Sir W. M. Muir, Director-General.

ASYLUM FOR IDIOTS, Earlswood—Assistant Medical Officer: £150 per annum, board, and apartments. Applications, 29th instant, to the Secretary, 36, King William Street, E.C.

BARNWOOD HOUSE LUNATIC ASYLUM, Gloucester—Medical Superintendent: £500 per annum, house, and board. Applications, 22nd instant, to A. J. Wood, M.D., Superintendent.

BRIGHTON AND HOVE DISPENSARY—Physician-Extraordinary. Applications, 3rd August, to Somers Clarke, Honorary Secretary.

BRISTOL GENERAL HOSPITAL—Physician.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary: £80 per annum, increasing to £100, board, lodging, etc. Applications, 4th August, to George Fell, Solicitor.

BURNLEY RURAL SANITARY DISTRICT, combined with several others—Medical Officer of Health: £500 per annum. Applications, 27th instant, to A. S. Dean, Clerk to the Burnley Rural Sanitary Authority.

CANCER HOSPITAL—Resident House-Surgeon and Registrar: 75 guineas for one year, board, and residence. Applications, 22nd instant, to Chairman of Weekly Board, 167, Piccadilly.

CERES, Fifeshire—Parochial Medical Officer and Public Vaccinator: £23 per annum, and fees; and £42 per annum as Medical Officer of the Adamson Institution. Applications, 31st instant, to Mr. Younger, Inspector of Poor.

CROOM UNION, co. Limerick—Apothecary to the Workhouse: £20 per annum and to the Croom Dispensary District: £30 per annum. Applications, 23rd instant, to J. D. Fitzgerald, Clerk.

DOWNPATRICK UNION, co. Down—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Strangford Dispensary District: £100 per annum, and fees. Applications, 13th August, to Samuel Seed, Assistant Secretary, Ballylena, Strangford.

DURHAM UNIVERSITY COLLEGES OF MEDICINE and PHYSICAL SCIENCE, Newcastle-upon-Tyne—Professor of Biology combined with Physiology: £450 per annum, and a portion of fees. Applications, 15th August, to T. Wood Bunning, Secretary to College of Physical Science.

EAST LONDON HOSPITAL FOR CHILDREN, Ratcliff Cross—Assistant Visiting Physician. Applications, 30th instant, to Ashton Warner, Secretary.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar: £20 per annum.

GENERAL HOSPITAL, Nottingham—Assistant House-Surgeon: £80 per ann., board, and residence. Applications, 2 st instant, to E. M. Kidd, Secretary.

GENERAL INFIRMARY, Northampton—House-Surgeon and Assistant House-Surgeon: £125 and £30 per annum, furnished apartments, board, etc., respectively. Applications, 18th instant, to S. P. Bennett, Secretary.

GLENTIES UNION, co. Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Carrick Dispensary District: £100 per annum, and fees. Applications, 28th instant, to Samuel Cassidy, Honorary Secretary, Bruckless House, Donegal.

HENDON UNION, Middlesex—Medical Officer and Public Vaccinator for the Weald District: £30 per annum, and fees. Applications, 29th instant, to W. A. Tootell, Clerk, Edgware.

HUNGERFORD UNION—Medical Officer for the Great Bedwin District: £83:3 per annum.

INDIAN MEDICAL SERVICE—Fourteen Surgeons. Applications, 10th August, to T. P. Pears, Major-General, Military Secretary.

KENMARE UNION, co. Kerry—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Sneem Dispensary District: £100 per annum, and fees. Applications, 21st inst., to Thomas M. Jermyn, Hon. Sec., Less Cottage.

KING'S COLLEGE, London—Demonstrator of Practical Physiology.

KINGTON UNION, Herefordshire—Medical Officer and Public Vaccinator for the New Radnor District: £80 per annum, and fees. Applications, 24th inst., to Anthony Temple, Clerk.

LAMBETH PARISH—Medical Officer for No. 1 District: £80 per annum.

LEEDS PUBLIC DISPENSARY—Surgeon.

LIVERPOOL ROYAL SOUTHERN HOSPITAL—Junior House-Surgeon: £84 per annum, board and lodging. Applications, 22nd instant, to James Houghton, Treasurer.

METROPOLITAN FREE HOSPITAL—Assistant-Physician.

MOHILL UNION, co. Leitrim—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rynn Dispensary District: £120 per annum, and fees. Applications, 27th instant, to Francis Gearty, Honorary Secretary, Finnaloughta, Dromod.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill—House-Physician for six months: £80 per annum, board, lodging, etc. Applications, 22nd instant, to Ralph Hordley, Secretary.

OWENS COLLEGE, Manchester—Professor of Anatomy: minimum emoluments, £500 per annum. Applications, 1st August, to the Council, under cover to J. Holme Nicholson, Registrar.

PEMBROKE RURAL SANITARY DISTRICT—Medical Officer of Health.

ROYAL ALBERT HOSPITAL, Devonport—Junior Surgeon.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields—Curator: £100 per annum.—Assistant House-Surgeon: £50 per annum, board, and lodging.

ROYAL NAVAL MEDICAL SERVICE—Surgeons. Applications, 6th August, to A. Armstrong, Director-General.

ROYAL ORTHOPÆDIC HOSPITAL—Surgeon. Applications, 22nd instant, to the Secretary.

RYE: Prince of Wales Lodge of Manchester Unity Independent Order of Odd Fellows—Medical Officer. Applications to the Secretary, 5, Magdala Terrace, Rye.

STOCKPORT INFIRMARY—Assistant House-Surgeon: £60 per annum, board, and apartments. Applications, 22nd instant, to S. W. Wilkinson, Hon. Sec.

SUSSEX COUNTY HOSPITAL, Brighton—Dispenser: £100 per annum, and meat luncheon. Applications, 20th instant, to Arthur Veysey, Secretary.

TORBAY INFIRMARY, Torquay—Dispenser: £50 per ann., board and lodging.

UNIVERSITY OF EDINBURGH—Professor of the Institutes of Medicine.

WEMYSS, Fifeshire—Parochial Medical Officer, East District.

WESTERN GENERAL DISPENSARY—Dentist.

WESTMINSTER HOSPITAL—House-Surgeon. Applications, 24th instant, to F. J. Wilson, Secretary.

WEST NORFOLK and LYNN HOSPITAL—House-Surgeon and Secretary: £80 per annum, board, and apartments. Applications, 18th instant, to the Weekly Board.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

Creighton, Thomas, Esq., Surgeon, at Morpeth, aged 34, on June 4th.

Lyon, David Mitchell, Physician and Surgeon, at St. Helier's, aged 37, lately.

*Steele, Henry Charles Brown, M.R.C.S., L.S.A., at Stoke Ferry, Norfolk, aged 66, on July 11th.

At the Staffordshire Quarter Sessions, held on Monday, Samuel F. Gosling, Esq., of Lee House, Biddulph, qualified as a magistrate for the county, and took his seat upon the Bench.

OPERATION DAYS AT THE HOSPITALS.

IONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

UESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

EDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

HURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

RIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

ATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

RIDAY, July 17th.—Medical Microscopical Society, 8 P.M. (St. Bartholomew's Hospital.) Mr. Jabez Hogg, "On Mycetoma".

NOTICES TO CORRESPONDENTS.

ORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

UBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

UTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

ORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

E CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

OMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

r. Fox (Chelmsford).—The correspondence is important, and shall be discussed next week.

RMY SURGEON is thanked. It will now be proper to take further steps: especially the state of matters should be made known in the schools. We shall take further counsel with members of the service on the subject.

OTWITHSTANDING that nearly every number of the BRITISH MEDICAL JOURNAL published this year has included a supplement of eight pages, and that one third more of original matter has been published this year in the BRITISH MEDICAL JOURNAL up to the present date than in any former year, we have still a considerable accumulation of manuscripts from town and country contributors. We would therefore especially ask our correspondents to compress, as much as possible, any communications with which they may favour us, with a view to their publication with the least possible delay.

TREATMENT OF PROLONGED SLEEPLESSNESS.

R,—Having seen a letter from one of your correspondents, over the signature "Exhausted Brain", I beg to state that I have lately met with two or three cases of prolonged sleeplessness, which have succumbed to nightly doses of chloral hydrate and bromide of potassium, ten grains of each, in orange-flower water.

I am, etc., L. LEWIS, M.D.

73, Albert Street, Regent's Park, July 1874.

PURPURA *versus* FLEA-BITES.

R,—In Liverpool there has lately been much discussion, both at the Society's meetings and out of doors, as to the correct diagnosis of that petechial condition which is so rife amongst the children of the poor. Dr. Lewis, who originated the discussion, considers it to be purpura, caused by want of animal food, and the party opposed hold that it is simply flea-bites. So far, nothing definite has resulted from the discussion. My opinion is, that both parties are in the right, as far as they go; that the petechial condition, in the majority of cases, is purpura, excited by flea-bites; that its subjects are predisposed to purpura by underfeeding; and that without an exciting cause it would not exist. I do not doubt that if the systems of those who suffer were further deteriorated through want of proper food, that purpura would result without any external influence. I look upon this petechial condition as an indication that the sufferer's health is below par; and I am convinced that the number of those cases would be very greatly diminished by applying a proper diet to the children of the poor.

Liverpool, July 4th, 1874. I am, etc., J. ARMSTRONG, M.B.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 37, Great Queen Street, W.C., and not to the Editor.

AIDE-TOI, ET DIEU T'AIDERA.

SIR,—In my letter with the above heading, which you were so obliging as to publish last week, there is an error, which I would thank you to correct; it is where I am made to write, "some forty forms of petition have been sent out". It should have been some four hundred; of this number, about forty to forty-five only have been filled in, in accordance with the advice given by the Council of the Poor-law Medical Officers' Association. I am, etc., JOSEPH ROGERS.

33, Dean Street, Soho, July 14th, 1874.

CONTAGIOUS DISEASES ACTS.

SIR,—In the June number of your JOURNAL, you bestow special honour upon "a sensible little leaflet" celebrating the praises of the Contagious Diseases (Women's) Acts, and denouncing the opponents of these Acts.

As it is of the greatest consequence that those who take antagonistic positions understand each other, and it seems to me that, in your notice and in the approved leaflet, the opponents of these Acts are not understood, I crave a few words of explanation.

The opponents of the Contagious Diseases Acts agree with the supporters of the Acts in deploring "the fearful ravages of disease resulting from illegitimate prostitution", though they would be at a loss to know what the writer of the leaflet means by "*illegitimate* prostitution". They fully agree also in describing it as a "horrible disease" which "is visited equally upon the pure and innocent wife and children" of the impure and guilty husband.

The opponents of the Contagious Diseases Acts agree with the supporters of the Acts in desiring that everything which medical skill can do should be done to cure the guilty sufferers; and that everything which Government can do should be done to protect the health of "the pure and innocent wife and children" of the man who is unfaithful to his marriage vow.

But the opponents of the Contagious Diseases Acts are misunderstood when they are represented as pleading "the rights of harlotry". They do not recognise "rights of harlotry", and to plead such "rights" they would regard as immoral. What we do plead is "the rights of womanhood", which it is an essential part of the duty of manhood to protect.

The leaflet says, "Just as surely as drunkenness increases or decreases in the same proportion as public-houses increase or decrease, so prostitution *must* increase or decrease as prostitutes increase or decrease". The opponents of the Acts agree with this statement, while they think that an additional question needs answering—What leads to the increase of prostitutes? Allowing, however, the truth of the statement made, we say, as the friends of temperance seek the decrease of public-houses, so the friends of virtue must seek the decrease of prostitutes. But the Acts neither provide for, nor contemplate the diminution of, prostitutes.

To the charge that the Acts "legalise an enormous vice", the leaflet replies that "the effect and result of the enactment is assuredly not to legalise vice, but to put strict restrictions upon it, and thus to bring it into smaller compass". We answer, an Act may both legalise and restrict, as in the case of public-houses; and the Contagious Diseases Acts do both. The terms on which women are detained involve restriction; the terms on which they are liberated are such as to imply legal fitness for prostitution. The certificate of the surgeon is the legal warrant for prostitution without police interference.

As to the charge that the Acts are framed to protect men while in the pursuance of vice, the leaflet says: "There can be no doubt that the Act would protect the sensual man from receiving disease; but would it therefore encourage him in his wickedness? We believe not." A man's belief must be taken at its worth, but belief is not what is required in this case. We need either argument or evidence, and there is neither here. If the writer means to argue that a sensual man is not influenced by a promise of safety in his sensuality, the weakness of such argument is self-evident. If facts are of more consequence than a belief spun from a man's "inner consciousness", the opponents of the Acts have facts to support their charge.

Finally, the supporters of the Acts should understand that the opposition to the Acts rests wholly on moral grounds. It is determined opposition, in proportion as the conviction is strong that morality is the only possible basis of national prosperity. The hatred of the Acts is bitter, because they legalise immorality, and form a public opinion which makes light of social vice. The head and front of their offending against morality are found in the periodical examination. In appointing this, the law ordains an immorality. In executing the requirements of the Acts, the surgeon pursues an immoral practice, but a legalised practice, and a practice publicly salaried, in order to shelter the guilty patrons of the lowest vice. Those who wish to understand the opposition to these Acts can succeed only by turning attention on the moral questions involved. To talk of science, in neglect of morality, is unworthy of the intelligence of a civilised people.

I am, etc., H. CALDERWOOD,
Professor of Moral Philosophy, University of Edinburgh.

*** Here are several bold assertions without one tittle of support in fact. "The certificate of the surgeon is the legal warrant for prostitution without police interference", says our correspondent. The prostitute has no certificate, and there is no such thing as "legal fitness" for prostitution. Prostitutes in the "subjected districts" have no more legal warrant than in any others: they are tolerated everywhere. If Professor Calderwood see his way to remove that toleration everywhere, he will have the earnest support of the whole body of the medical profession. If he do not, it is obvious that his statement, that the prostitutes in the subjected districts have a legal warrant which they have not elsewhere, is wholly without foundation. That the supporters of the Contagious Diseases Prevention Acts believe that they have a moral ground of opposition we are aware. But, so long as their opposition is not extended to prostitution as it is practised in great cities, but solely to the prevention of disease amongst prostitutes, they cannot hope to gain the sympathy of those who believe that moral evils are to be met by moral remedies, and physical diseases treated and prevented by physical means. The repression and prevention of venereal disease is one thing; the repression of prostitution is another. But Professor Calderwood confounds the two; he does not propose any means of effecting the latter, and aims only at favouring the extension of the former. Having, however, inserted, and briefly answered, this communication, we cannot consent to prolong the discussion, which is in truth exhausted on both sides long since.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Printing Office, 37, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

THE SOHO HOSPITAL FOR WOMEN.

SIR,—I am not in a position to state whether any of the out-patients of the Soho Hospital for Women pay for the advice and medicine they receive at that institution, but, judging from the dress and general appearance of those who alight from cabs, etc., I can confidently assert that they ought, and that handsomely too. Many of those I have seen go there were evidently of such social status that, if they had consulted me instead, I should have felt myself fully justified in charging a fee of five shillings, if not more.

I am, etc.,

Dean Street, June 29th, 1874. JOSEPH ROGERS.

THE SOHO HOSPITAL FOR WOMEN.

SIR,—About a month ago, I called your attention to what I described as "a flagrant abuse of charity" at the Soho Hospital for Women. The Committee of that Hospital have, however, offered no explanation of the facts stated by me, or of the conclusions deduced from them, and it is therefore fair to suppose that they have none to offer; in other words, they admit the truth of my allegations against them, and acknowledge that they did, in the particular instance alluded to, make an arrangement with the patient, by which the services of the medical officers were obtained, and the funds of the institution benefited at their expense. They admit this; and they therefore accept it as a principle that this is a legitimate method of obtaining funds for their hospital; and if so, the same plan may be, and, for anything I know to the contrary, *is now*, adopted by the Committees of other hospitals. Such a system, however, cannot continue if once exposed; and I ask you, sir, to use your powerful influence in calling the attention of the whole profession to this matter.

Other gross cases of abuse at the same hospital have been alluded to by Dr. Rogers and your correspondent "Inquirer", and seem to show the necessity of a thorough investigation into the management of this institution.

I am, etc.,

7, Henrietta Street, Cavendish Square. W. SPENCER WATSON.

THE SOHO HOSPITAL FOR WOMEN.

SIR,—In your JOURNAL of June 13th, a letter appears, signed "W. Spencer Watson", referring to the receipt of "ten guineas from a grateful patient", which I had announced. The sum in question was brought to the hospital by the patient many months after her discharge Whether she may have collected it for the benefit of the hospital, or been in circumstances at that date to show her gratitude in this way, I have no information; but the Committee direct me to say that in any case the invidious imputation of arrangements being made with patients to cheat the medical officers does not deserve further notice or refutation on their part.

In your issue of June 20th another letter is published, signed "Joseph Rogers", conveying an equally injurious imputation against one of the medical officers (not named), of endeavouring to secure future practice with the paying patients. Such charges as these, without names or dates, do not admit of any but a general repudiation of the acts and motives imputed; but the animus and tendency of such repeated attacks, published in your JOURNAL, cannot be mistaken, and the Committee must leave it to your own judgment how far a public journal can fairly open its pages to correspondence of this character, with a view to damage a medical charity, or disparage its staff management.

Finally, in your issue of June 27th, under the head of "Notices to Correspondents", an anonymous letter, signed "Inquirer", is published, alleging that a patient of the writer's had been an out-patient at the hospital, and that she had paid five shillings there for each visit.

I am only to state in reply, that the Committee have no knowledge of any such irregular proceeding; but if your correspondent will give names and dates, they will take steps at once to verify the facts, and let the inquirer know the result.

I am, etc., EDWARD D. STEAD, Secretary.

London, July 15th, 1874.

THE OLD PRACTICE AND THE NEW.

SIR,—Are we not constantly searching for new remedies, and neglecting to ascertain the value of many simple means which are always at hand? Some years ago, I was called up in the middle of the night to visit a man about four miles distant, who at eight o'clock the previous morning had swallowed two ounces of laudanum. As sixteen hours had elapsed since he had taken the poison, I had little hope of being of any service; but, being parish doctor, of course I went. I had heard that two medical men had been with him all the day, but had left him, considering the case hopeless. The stomach was empty when the poison was swallowed, and several hours elapsed before the medical men arrived, when the stomach-pump was used and the stomach well washed. I considered, therefore, that the poison must have been absorbed, or have passed into the intestines; however, I took with me a powerful syringe and four ounces of sulphate of magnesia. On arriving at the house, I found the man's friends and a number of the inhabitants surrounding the bed. They apologised for troubling me, stating they were quite satisfied that nothing more could be done for him; but, as he appeared to be dying so many hours, the inhabitants were anxious that some medical man should see him. The man lay in bed on his back, and the only sign of life was, that about once in a minute he drew a deep stertorous inspiration. The body was cold; no pulse was perceptible; the pupils were quite insensible; the action of the heart could not be felt.

I ordered a large four-gallon watering-pot to be filled with cold water and a small wash-tub to be placed by the side of the bed. Two men took the head and shoulders and held them over the tub. I now got on a chair and poured a full stream of water over the head and face for an hour. He did not show the slightest sensation or feeling; but on rubbing him well and placing him back in bed, the breathing was quieter and less stertorous. After resting, another douche was given for an hour, without producing the slightest sign of feeling or sensation; still, I fancied the breathing improved. Thinking that perhaps a portion of the opium was still in the intestines, I by degrees injected into the bowels the salts, dissolved in three pints of cold water. This did not appear to produce the slightest sensation or feeling. We then replaced him him in bed and covered him with blankets; the breathing was evidently much improved. After resting some time, we gave him another douche. I now requested the men to turn him round, with his face upward, with his head lying back and mouth open. I poured the full force of the stream into his mouth. The water no sooner touched the larynx than he made a sudden spluttering noise, and showed the first sign of feeling. A teaspoonful of brandy was put into his mouth, but was not swallowed. We had him over the bed again, and gave him another dash on the face and mouth. This excited a loud exclamation of irritation and a slight patch of colour on the cheek. We rubbed him dry, and applied warm flannel to his feet. His breathing was quiet and more natural. I now observed, from the motions of the body, that the bowels were about to act. We placed him on the night-chair, and in a few minutes a large evacuation took place, smelling strongly of opium. Sensibility now began to return: and we ordered some strong coffee, of which he drank a few cups: but, on replacing him in bed, he fell into a deep sleep. Fearing he would again fall into a comatose state, we had him dressed, carried him down stairs, and two men led him about in the open air until tired; they then took him into the house by a good fire, gave him some coffee, bread and butter, and put him to bed. I saw him again in the evening. He had slept soundly all day, and was perspiring copiously. He was much excited, complained of the treatment he had received, and did not thank me for restoring him to life; so that, after six hours' hard and anxious labour,

The man did not thank me;
The wife cursed me;
And no one paid me.

I am, etc., SENEX (Sixty Years in Practice).

DYSPEPSIA AND DECAYED TEETH.

SIR,—Your correspondent Mr. Ashburton Thompson is rather severe in last week's impression on "two notes that have recently appeared in the JOURNAL on dyspepsia and its connection with decayed or deficient teeth". There is no doubt that decayed teeth are a cause of dyspepsia, which is very much on the increase; but I should like to advance a step backwards, and inquire why it is that the rising generation so early find their teeth decay from softening of the enamel? In the President's (Mr. Skaife's) address, delivered at the annual meeting of the Lancashire and Cheshire Branch, held at Blackburn on the 17th June, he attributes the early decay of the factory operatives' teeth to their having discontinued oatmeal-porridge for breakfast. This I think very likely to be the case, as oatmeal contains the constituents of bone, muscle, and the enamel of the teeth. An eminent London dentist and lecturer at one of our large hospitals was lately lamenting the early decay of the teeth of the young people of the present age, and attributed it to their having been brought up on food consisting principally of starch, and deficient in the phosphates.

I am upwards of sixty years of age, and have lost some of my upper teeth, which have dropped out from absorption of the alveolar process of the jaw; all my lower teeth are as sound as they were fifty years ago. I was brought up on old-fashioned pap, made by boiling homemade bread in water, and then mixing it with milk. It is true that when the bread was made with sour stale yeast, or baker's bread was used, we suffered from flatulence, gripes, and diarrhœa; but this casualty may be avoided, according to your correspondent M.R.C.S., by using aerated bread.

I have for a long time ordered for sickly limp children, lacking muscular strength and activity, oatmeal-porridge for breakfast. We feed our race-horses, hunters, and fox-hounds on oats and oatmeal to make them muscular, energetic, and enduring; and if the rising generation were fed oftener on oatmeal-porridge and whole meal-bread, they would be more muscular, have harder bones, be less effeminate, more courageous, and not afraid to show their teeth.

I am, etc., F.R.S.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, July 13th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. A. B. Steele, Liverpool; Dr. H. Calderwood, Edinburgh; Mr. Lawson Tait, Birmingham; Mr. A. R. Grant, London; Dr. Wells, Reading; Dr. George Johnson, London; Mr. Gravely, Lewes; Mr. R. S. Fowler, Bath; Mr. T. J. Jefferson, Market Weighton; Mrs. Blennerhassett, Kerry; Mr. Wm. Fairlie Clarke, London; Dr. Fitzgerald, Dublin; Dr. N. G. Mercer, Beverley; Our Paris Correspondent; Dr. McDonnell, Dublin; Dr. Hughes Bennett, Spa; An Associate; Dr. Francis Hawkins, London; Mr. E. M. Rodwell, London; The Secretary of the Medical Microscopical Society; Dr. C. Cooper, Randon; Our Dublin Correspondent; Mr. W. G. Bennett, Manchester: Mr. Wm. L'Heureux Blenkarne, London; Dr. Marcet, Yvoire; Mr. G. C. Coles, London; Dr. Crichton Browne, Wakefield; Mr. Clement Godson, London; Dr. Farquharson, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; M.D.; Dr. Joseph Bell, Edinburgh; Mr. Pugin Thornton, London; Dr. Lewis, London; Mr. Henry Bowen, Kineton; Mr. James Hughes, Middlewich; A. B.; Mr. Henry Greenway, Plymouth; Dr. Alexander Macdonald, Woburn: Mrs. Tomlinson, St. Helier's; Dr. Günther, Munich; Our Glasgow Correspondent; Mr. Eastes, London; Litmus; Dr. Urquhart, London; Dr. John Williams, Penygroes; Mr. F. Baden Benger, London; Dr. Cornelius Fox, Chelmsford; Dr. Grigg, London; Surgeon A., M.D.; Mr. Cowell, London; Dr. Thomas Diver, Southsea; Sir A. Taylor, M.D., Pau; Dr. Balthazar Foster, Birmingham; Dr. Paul, London; Miss Wolstenholme, London; Mr. A. Baker, Birmingham; Dr. Bateman, Norwich; Mr. D. K. Jones, Beaumaris; A Member; Mr. H. Nelson Hardy, London; Dr. Rutherford, London; Mr. W. W. Wagstaffe, London; T. B., Stockport; Mr. John Simon, London; A Correspondent; Dr. J. W. Ogle, London; Mr. T. Holmes, London; Dr. Edwards Crisp, London; Dr. Desmond, Liverpool; Dr. Lush, M.P., London; Mr. Richard Davy, London; Mr. Gosling, Biddulph; Mr. William Bird, York; Dr. T. W. Blackshaw, Southport; Dr. Phillips, Reading; Dr. Whitmore, London; Dr. J. Armstrong, Liverpool.

BOOKS, ETC., RECEIVED.

Report of the Chester County Lunatic Asylum. 1874.

An Introduction to the Science of Heat. By Temple A. Orme. Third edition London: Groombridge and Sons. 1874.

CLINICAL LECTURE
ON
A CASE OF HEMIPLEGIA.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,
Physician to the London Hospital, and to the Hospital for the Epileptic and Paralysed.

LECTURE I.—(*Concluded.*)

Limbs.—The arm was not absolutely paralysed; it was much weakened. As most frequently happens, it suffered far more than the leg. That limb which has the more voluntary or more special uses, suffers the more. Whilst the patient was lying in bed, there was seemingly no loss of power in his leg; but, when we got him up to walk, we found that the leg was decidedly weakened, although he could walk without help. We ascertained two things, each equally important: first, that the leg *was* weakened; and second, that it was only slightly weakened. You are not warranted in saying that a patient's leg is not somewhat paralysed in a case of cerebral disease, unless you can get him up to walk and see that he walks well, however fully he may seem to move it in bed. Unless you bear this in mind, you will misinterpret your cases when you have obtained necropsies. You will infer, for instance, that a lesion found in the corpus striatum had caused paralysis of the upper, not of the lower, limb. This would be a most unfortunate mistake; it would encourage the popular notion that there are abruptly demarcated localisations of movements of the limbs—one centre for the arm, and another for the leg. The method of representation only approaches this. There are parts where movements of the arm and leg have respectively the leading representation. It is very rare indeed to find considerable palsy of the arm without some paralysis of the leg; not very rare to find that the leg has recovered whilst the arm remains paralysed. For not only does the stress of the palsy fall on the more voluntary limb, but that limb remains paralysed longer. This illustrates a rule, that the more automatic parts recover first. But, even when the patient is up and about, it is, I believe, very common for mistakes to be made as to the condition of the leg, or rather as to its condition relative to that of the arm. Let me give you an illustration. A hemiplegic patient, who had been in the hospital, and who came to show himself in the out-patient room, said that he had recovered much power over his leg, but not over his arm. The facts were exactly the opposite—viz., that he had regained scarcely any power over the leg; for, when I examined him, he could not move a toe, nor could he bend the knee, except to the most trivial extent. He had lost, or nearly lost, movements of separate parts of the leg. On the other hand, his arm had regained a good deal of power. He could move the arm a good deal, but he could not *use* it. He could scarcely move the leg—its separate parts—but could use it as a whole for walking long distances. The leg, when stiff, serves as a sort of crutch; it can be swung forwards, although its separate movements are almost extinct. But the delicately moving arm would be useless in this condition, and practically useless if the patient had much power over many of the coarse or very general movements of the limb, such as extension, flexion, etc. This case was not, as the one which is the text of this lecture was, according to rule: the leg suffered more than the arm, although, as I say, it seemed to suffer less. But there is in these exceptional cases some kind of order. When the more automatic limb (the leg) suffers more than the more voluntary limb (the arm), the rule is, that the more automatic part of the arm—its upper part—suffers more than the hand. To this rule there are numerous exceptions.

We could not determine defect of sensation in our patient. There was certainly no considerable defect of it.

Now let us see what we have got in this first degree of the common form of hemiplegia. There is paresis of the right side of the face, of the right side of the tongue (this we will infer), of the right arm and leg. This form of paralysis points to disease of the highest parts of the motor tract, and, considering that the arm suffered much more than the leg, and that speech was lost, to disease of the corpus striatum. I do not, of course, say to disease limited to that centre. And again I remind you that it points to nothing more than position of lesion. Hemiplegia is only a localising symptom; it does not point to the pathological process. The destruction of the corpus striatum causing such hemiplegia may be by clot, by softening, or there may be exhaustion of the nerve fibres and cells of the organ from a strong epileptic discharge (epileptic hemiplegia, see page 69). In the last case, the disease you[*] *might discover* at the necropsy would not be in the corpus striatum, nor in the motor tract; it would be in the convolutions. But then the disease you discover in such cases is not the direct cause either of the convulsion or of the hemiplegia. In fact, the disease in the convolutions, so far as it destroys, causes no symptoms. The direct cause of the convulsion is a discharge of highly unstable grey matter—grey matter about the disease you discover. The paralysis is, I believe, a result of exhaustion of the corpus striatum, through which organ the strong discharge has passed during the severe convulsion. So, according to this speculation, epileptic hemiplegia is really a "corpus striatum" hemiplegia. It is evident, anyhow, that the disease in the convolution is not the cause—the *direct* cause, that is—of the hemiplegia, because the patient is only paralysed, and that temporarily, after a discharge—after a convulsion. The disease you discover exists in intervals when there is no paralysis at all.

The statement I made as to the parts paralysed in hemiplegia gives them in geographical order. We say the patient has lost power in the face, tongue, arm, and leg. Another and more useful, although unfamiliar, way of putting it, is to say that the hemiplegic patient has lost a quantity of movements, and that these are the most voluntary movements of the body—of one side of the body, that is. He preserves the more automatic movements—those of the trunk, etc. We saw, too, that our patient had lost the most voluntary movement of his tongue, retaining the automatic. We may make this very general remark that, *from destroying lesions of the cerebral nervous centres, parts suffer the more as they are voluntary or special, and the less as they are automatic or general.* Recovery follows the reverse order: the more automatic parts recover first. We shall have further illustrations of this principle as we go on. We shall see, I think, that we have in it a clue to the explanation of the whole of the condition of the aphasic patient, and to a knowledge of the nature of the duality of the brain and mind. The aphasic patient, like the hemiplegic patient, and, we may add, like the insane patient, is reduced to a more automatic condition.[†]

Second Degree of Hemiplegia.

We now pass to that hemiplegia of greater range, which I shall call the second degree of hemiplegia, or, as I sometimes say, complete hemiplegia. Our patient's hemiplegia was as complete in range as we usually see hemiplegia. His face, tongue, arm, and leg, were paralysed on one side. But, from a graver lesion than that our patient had, there is a *compound effect;* there is not only (1) *increase* in the paralysis of the face, arm, and leg, but also (2) *spreading* of palsy to more automatic parts. Thus the shoulder and trunk muscles of the right[‡] side are involved. There are also certain other prominent and very interesting symptoms which show extension of paralysis to movements of more automatic parts.[§] These are (*a*) deviation of the two eyes, and (*b*) of the head—in both cases, from the side of the body paralysed. The following is a list of the chief symptoms in complete hemiplegia (those additional to symptoms in the first degree of hemiplegia being in italics).

1. *The head turns to the left.*
2. *Both eyes turn to the left.*
3. *The muscles of the chest and belly are weakened on the right.*
4. *The muscles passing from the trunk to the right limbs are paralysed.*
5. The face is paralysed on the right side.
6. The tongue, on protrusion, turns to the right.
7. The right leg is paralysed.
8. The right arm is paralysed.

The turning of the eyes and of the head is from the side paralysed, as is that of the face. One or both of these symptoms may be present when the lesion is a very grave[||] one. With regard to one of these deviations, it is very plain that we have not to speak of paralysis of ocular muscles, but of loss of special movements of the eyeballs. The lateral deviation of the eyes, for example, is not due to disease of any of the ocular nerve-trunks nor of their branches, nor even of their "deep" origins in the pons Varolii or crus cerebri. The lesion is far higher: in the case supposed, it is in the brain. There is loss of that *movement* which turns the two eyes to one side. Speaking metaphorically, there is loss of a chord, not loss of a few notes.

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[*] It is implied in the text that we do not always *discover* local disease of the brain, *post mortem*, in cases of convulsions, in which the paroxysms began locally and were followed by temporary hemiplegia. I have seen two cases in which there was no local disease, but generally wasting of both sides of the brain.

[†] See "On Voluntary and Automatic Movements" in the JOURNAL, Dec. 2, 1871, p. 641.

[‡] For verbal convenience, we continue to suppose the right to be the side of the body affected.

[§] Lateral deviation of the eyes in cases of hemiplegia was first described by Vulpian. Prêvost has written a most valuable monograph on the subject (*De la Déviation conjuguée des Yeux et de la Rotation de la Tête dans certains cas d'hemiplégie*). In this country, cases have been reported by Humphry of Cambridge, Lockhart Clarke, Hutchinson, Broadbent, Russell Reynolds, and myself (*London Hospital Reports*, vol. iv, 1868). I am surprised that Vulpian and Prêvost's researches on ocular deviations have received so little attention in England. Ocular deviation is a most important symptom both clinically and physiologically.

[||] The word *grave*, as previously remarked (p. 70), includes two factors—size of lesion (quantity of nerve-tissue destroyed) and suddenness of lesion (rapidity of destruction). The element of suddenness is a very important one. As Prêvost remarks, the deviations mentioned in the text usually accompany "brusque" lesions.

We see that the order we have mentioned for the involvement of parts (from the voluntary or special to the automatic or general) is respected in the second degree of hemiplegia. The loss of movements of the two eyes and of the head, and the weakness of the side of the chest, show extension of palsy beyond the paralysis of the most voluntary parts (face, arm, and leg) to movements next most voluntary, or, in other words, to movements next least automatic. A lesion of the first degree of gravity produces paralysis of the face, arm, and leg: one of the second degree of gravity has a compound effect; it both leads to more decided paralysis of the parts I have just named, and adds on the additional symptoms (those mentioned in italics in the list). Never forget that the separation into three degrees of gravity is artificial. Thus there may not be deviation of both the eyes and of the head, but of one of these parts of the body only, and significantly it is then of the eyes: the more special of the two movements suffers. If we take the ocular deviation, we see that the physiological order prevails here. It is the most important of the ocular movements which is lost.

As to the palsy of the trunk, we often observe that the two sides of the chest appear to act equally until the patient is told to draw in his breath; then the chest on the paralysed side lags behind, there is less expansion, and the movement seems to begin later. Some years ago, Dr. Broadbent put forward the hypothesis that the bilaterally acting muscles—the thoracic muscles, for example—escape in hemiplegia, because they are doubly represented, these muscles of the two sides of the body being represented in each side of the brain. I adopted this hypothesis, and still think that the principle of it is correct; for, although in some cases of hemiplegia there is, as above remarked of the chest, one-sided weakness of those muscles which must act bilaterally, this weakening is only found soon after the paralysing lesion, and in cases of grave lesions. Broadbent's hypothesis is, I think, correct, so far as this, that in destroying lesions of the brain, movements of one side suffer the less the more their normal action is with those of the other side of the body. This hypothesis accounts, I think, for the "thick speech" (see p. 71) in bilateral lesions of the higher divisions of the motor tract.

The order of recovery in cases of complete hemiplegia illustrates well the principle, that the more automatic or general parts recover before the more voluntary or special. This is saying, in effect, that the lateral deviations pass off first. These symptoms are, indeed, mostly very transitory; they pass off in a few hours[*] or days. But since they are usually produced by a grave lesion, they are signs of ill omen; the patient who has had them is not, except in cases of epileptic hemiplegia, likely to get rid of the rest of his paralysis.

We will now recapitulate and add further remarks on the physiological significance and clinical value of these lateral deviations. 1. They are signs of a grave, that is of a large and sudden, lesion. 2. They are usually transitory; they last a few hours only, or a few days. 3. The deviation of the eyes may occur without deviation of the head. 4. When, soon after the seizure, the paralysed arm or leg, or both, become very rigid, the head and eyes may turn with the face to the paralysed side, just as they turn to the side convulsed at a certain stage of convulsion beginning in the face, hand, and foot. 5. They occur with lesions of or on the surface—meningeal hæmorrhage, for instance—as well as with lesions of the corpus striatum or optic thalamus. Observe, also, 6, lateral and other conjugate deviations of the eyes occur, with lesions of other parts of the nervous system, with lesion of the crus cerebelli,[†] for an example.

Third Degree of Hemiplegia (degree beyond) Hemiplegia.

I shall do little more than mention the symptoms in the third degree. There is no discoverable hemiplegia, so that the term hemiplegia becomes a misnomer. There is universal powerlessness, paralysis of both sides of the body, or, as we may say, there is Complete Hemiplegia *plus* paralysis of the other side of the body. Bearing in mind the principle several times mentioned, we see that the patient is "reduced" to a condition so automatic that the only obvious action, and that imperfect, may be of parts so automatic as those of respiration and circulation. When both sides of the body are paralysed from a grave cerebral lesion, it is difficult to demonstrate paralysis anywhere, because stimulation everywhere leads to no reaction. Besides, a very grave lesion produces loss of consciousness. We can well understand that the condition produced by a large clot suddenly effused in the pons Varolii, or in but one side of the brain, is scarcely to be distinguished from opium-poisoning. It is convenient, however, to speak of the results of a very grave lesion in one side of the brain as a third degree of hemiplegia; for the universal powerlessness is, I think, really a degree beyond the second degree of hemiplegia, and depends on lesion of that one side of the brain. It is clear that both sides of the body are represented in each side of the brain; for, after old lesions of one of the corpora striata, wasted fibres are traceable into each side of the cord.[*] But one side of the body (that on the side of the lesion) is much less represented than the other side, and hence, if the patient, who is universally powerless from a very grave lesion in his left corpus striatum, does not die apoplectic, the limbs on the side of the lesion (the left limbs) recover early, but he remains paralysed of the right side.

These facts, as to representation of the two sides of the body in each side of the brain, are not only very important in leading us to a proper explanation of those convulsions which, beginning *deliberately* on one side, *become* universal, but as leading on to an explanation of those convulsions which, affecting one side only a little sooner and a little more than the other, are often called general convulsions, or, under certain clinical circumstances, "idiopathic epilepsy". I believe there is also in these last-mentioned cases discharge of some part of but one cerebral hemisphere—of that hemisphere opposite the side of the body to which the epileptic patient's eyes and head turn at the onset of the paroxysm.

"Vital" Symptoms in Hemiplegia.

So far, we have spoken of the gross movements of the body. We have omitted certain very important symptoms. There are other movements than those of the limbs and trunk—other movements than those which are visible. There are movements of the arteries and of the heart. That these movements are represented in the brain, even in the convolutions, I have long held. Indeed, it seems to me that cases of disease, especially cases of *petit mal*, show that the anatomical substrata of consciousness, and these will be of convolutions, sum up, and, as it were, potentially contain all lower processes; they re-represent the whole subject. The anatomical substrata of consciousness are, of course, the highest and most special of all nervous processes. In a case of *petit mal*, in which loss of consciousness is the earliest event, there must be implication of those most special nervous processes. Now, in such cases, there is not loss of consciousness only, but there is great pallor of the face. Otherwise put, discharge of the very highest of all nervous processes produces, not only a most special loss, but also effects referable to parts so automatic as the circulation. Similarly from such destroying lesions as clot, affecting the highest centres (of the corpus striatum and adjoining brain we are supposing in this lecture) there occur "vital" symptoms. There are alterations of circulation, respiration, and temperature. I say "alterations" because, soon after the lesion, there is slow and shallow respiration, the pulse is slow, and temperature is abased; whereas, after some time (it varies greatly), the respiration is quick, pulse swifter and irregular, and the temperature is raised. In accordance with the principles enunciated several times in this lecture, these most automatic processes only suffer in very grave lesions. They are little marked in the first degree, more in the second, and most in the third degree of, or rather degree beyond, hemiplegia. They pass off soon, thus illustrating the principle that the more automatic parts recover first. I cannot do more now than urge you to pay attention to these "vital" symptoms, as well as to the gross symptoms. To consider them here would lead me too far from my special task. What I would strongly urge is, that they should be studied, not only from cases of "destroying lesion", such as cerebral hæmorrhage, but from cases of "discharging lesion". They are of great importance in prognosis.

Loss of Consciousness.—There is one other symptom which often attends hemiplegia—loss of consciousness. I shall speak of it very briefly. The definition I would give of this is that it is loss of use of the highest (most special) of all nervous processes; and, as before mentioned, I hold that these processes are evolved out of, and as it were potentially contain, all lower nervous processes. On this view, you will see that the distinction of cases into epileptic and epileptiform, grounded on the presence or absence of loss or trouble of consciousness, is arbitrary, and without anatomical and physiological warrant. It is, I consider, an error to suppose that the nervous processes underlying consciousness are *sui generis* and abruptly separate from all others.

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[*] I have recorded a case of extensive softening in the region of the middle cerebral artery, in which case the deviation of the two eyes lasted three or four weeks, until death. (*London Hospital Reports*, vol. iv, 1868, p. 355.)

[†] The symptoms of complete hemiplegia are interesting, as showing that there exists in the cerebrum an anatomical connection betwixt the most special movements of our eyes and the most special tactual movements—viz., those of the hands. My speculation is, that the ocular movements concerned in estimating distance are represented in the cerebellum, along with our locomotor movements.

[*] The facts of convulsion from disease of the cerebral hemisphere are quite in accordance. There may, indeed, be taken three arbitrary degrees of convulsion, beginning unilaterally, corresponding to our three arbitrary degrees of hemiplegia. In the third degree, the convulsion, beginning on one side, reaches the other side—it becomes universal. This indirect evidence of the representation of the two sides of the body in each side of the brain is important, because a very large clot in one side of the brain squeezes the other side, and a large clot is the commonest cause of the third degree of hemiplegia.

I have used the general expression loss of use, because the nervous processes underlying consciousness may be put out of use by very different pathological processes. Here, particularly, I would urge you to keep the physiological condition separate from the pathological process. Just as hemiplegia may be caused by anything which puts the corpus striatum *hors de combat* (clot, softening, tumour, strong epileptic discharge); so loss of consciousness may be caused by anything which puts the highest nervous processes *hors de combat* (clot, softening, severe squeezing by tumour, and epileptic discharge). Whether, in a case of cerebral hæmorrhage, the loss of consciousness is due to shock, to squeezing, or to arterial anæmia, is a question in pathology; the physiology of loss of consciousness is clear. Of course, I do not locate consciousness so geographically as I try to do the representation of the limbs and face. Consciousness will be lost in any "grave" lesion of the brain on either side. For, since the processes underlying consciousness are the highest of all, and are evolved out of and re-represent all lower processes, the loss, especially the sudden loss, of any important, although subordinate, part of the brain would entail loss of consciousness. I do not wish to consider this subject further at present.

ON HABITUAL DRUNKENNESS:

Being the President's Address, delivered at the Annual Meeting of the Birmingham and Midland Counties Branch.

By WILLIAM C. GARMAN, Esq., Wednesbury.

GENTLEMEN,—One of the objects of our annual inaugural address is to mark a fresh starting point in what we hope and expect will be a fresh career of usefulness; not necessarily entailing the promulgation of anything absolutely new, or advancing opinions on which we are not for the most part in accord, for it is almost inevitable that on an occasion of this kind, that ground must be traversed which others have gone over before.

The British Medical Association is now the only recognised representative organisation of our profession, and any influence that is brought to bear on the powers that be for the public weal must almost of necessity come from this source. Hence, it has its grave responsibilities as well as its privileges and honours. Feeling that, at the present political juncture, there arises an opportunity for directing attention to much that remains to be done in matters, connected with which the State and our profession hold important relations, must be my apology for selecting Public Medicine as part of the subject matter of my remarks; not that its want of importance requires any apology, only that so much has been said of late on some departments of this subject that it savours of being somewhat overdone, when only a moderate amount of good has really been achieved.

I first propose to speak to you on a subject which, perhaps, more than any other, places members of our profession in the most difficult and painful position; of a class of cases which, perhaps, more than any other, gives us the most trouble and anxiety, and in the present state of legislation finds us almost powerless for good. I refer to the habitual drunkard or dipsomaniac. When I remind you that it has been ascertained, on pretty accurate data, that in England and Scotland there are 600,000 of these cases; that there are, moreover, 60,000 lunatics, and that 60,000 lives are lost annually in England, caused by accidents or disease the result of drinking, I feel sure I can urge the vast importance of the subject if any excuse were necessary for bringing it under your notice.

The recognition of the drinking habit as a disease, the proper care and treatment of the dipsomaniac, and the alleviation of his condition has been left as a legacy by the lamented Donald Dalrymple (whose efforts on this behalf were most untiring and praiseworthy), to be dealt with by his professional brethren. From an extensive observation of the "confirmed habitual drunkard", I have become convinced that it is neither more nor less than a psychological condition to be described by no other word than mania. And I suppose that such is the opinion of the majority of gentlemen whom I am now addressing; and yet it strikes me as singular that, although this opinion is held by the greater number of our body, so little has been said or written on this subject. The recognition of the drinking habit as a disease, was brought prominently before the profession sixteen years ago by Sir R. Christison, in an admirable address delivered before the Royal College of Surgeons of Edinburgh, although attention appears (according to that gentleman) to have been first directed to it as long since as 1817 by Salvatori, a physician of Moscow, in a treatise read before the Physico-Medical Society of that city, entitled "De ebriositate continuâ, remittente et intermittente", in which he speaks of the singular malady arising from excessive drinking, which he calls "furor bibendi", and gives the following graphic description of the symptoms of an approaching attack of periodic ebriosity. First, in the morning, while the stomach is empty, there are sickness, belching, salivation, trembling of the extremities, giddiness, languor, and general discomfort. By and bye, the appetite fails; sleep is short and disturbed; an indefinable misery arises, rendering life itself a burthen. At this stage, the habitual intoxicating cup thrusts itself perpetually on the thoughts, gradually so occupying them as to exclude all other ideas, and now the resistance and prayers of the patient's friends are of no avail. He declares he is driven by irresistible necessity to strong drink, and will go mad without it; he drinks, and at once rushes into intoxication. Forthwith vanish all his precursory miseries. His low spirits disappear; nausea ceases; if he never sleeps, it is without fatigue; if he is always on foot, his nerves are strong for the toil and feel it not. The first two or three days are days of joy. But soon he begins to storm and rage if drink be not continually at hand. The eyes are staring, and the eyelids never closed; he often sees double, and distant objects dimly; he stammers in his speech; the mind wanders; gloom again possesses him; and he bewails his unhappy lot. The stage of drinking being at last at an end, he vomits an acid acrid mucus; detests strong drink, recovers soundness of mind, and condemns remorsefully his own weakness. Languor follows great prostration; heavy sleep, profuse sweating, often spirituous in odour, acrid diarrhœa, and tenesmus, with a feeble pulse, intense headache, and thirst, and tremor of the hands, especially after drinking cold water. The paroxysm is now over.

Salvatori goes on to say that the mind, though generally impaired in those afflicted with ebriositas, is not so perverted that it should rush of itself to destruction. On the contrary, men of great intelligence, guided in all other things by the dictates of wisdom and prudence, are seen to succumb to this calamity. It can scarcely be doubted, therefore, that some fundamental infirmity lurks not in the mind but in the body, affecting the mind secondarily and inducing a true insanity. With regard to the seat and nature of this bodily infirmity, he confesses that it is somewhat hypothetical; but he considers that the symptoms of the disease and their course point to an affection of the nervous system, in all probability to "a disordered state of the ganglionic system of nerves, such as is witnessed in some cases of parasitic affections". With regard to remedies, he speaks of having used wild thyme.

Here, then, we have the symptoms, progress, pathology, and treatment of one form of this malady brought before the profession by a foreigner nearly sixty years ago. And, despite the interest of the subject, whether taken from a scientific, moral, or political point of view, it is only by fits and starts, as it were, that we hear anything of the question. If our leading psychologists are right—and our profession, as a body, for the most part admit this fact—the necessary sequence is that gross injustice is being done to thousands of our fellow men and women. The victim of this disease, being as powerless of himself to help himself as any patient that ever entered a lunatic asylum, should, in my opinion, be dealt with and provided for as carefully and efficiently.

Drunkenness, as a vice or vicious habit, is principally confined to the accidental inebriates—those who become drunkards of their own will, those whose brutal instincts, governed by uncontrolled passions, override their intellectual faculties. These have been quaintly described as sporadic or accidental drunkards, whose vice arises from a want of education and bad company, and is not the result of hereditary taint or diseased mental organisation. I would draw a wide distinction between the drunkard who is such in accordance with his own volition, and the inebriation of disease, which has its cause, symptoms, diagnosis, and treatment as clearly marked as a case of pneumonia.

Dr. Christison's definition of a dipsomaniac is the best I know. He says: "He is not merely the ordinary or habitual drunkard, but the drunkard whose avidity for strong liquors has reached such a height as —1. To cease to be controllable by every plain, powerful, moral, and religious consideration; 2. To overwhelm the mind in frequent or continuous intoxication; and 3. To occasion danger to his affairs, or family, or both—it then should be considered as a disease, and treated as an insanity."

The drinking habit or alcoholic diathesis is confined to no one class of society. I have seen it in the professional man, the educated man, down to the working labourer who toils for his daily bread. It has come under my observation in ladies of culture and refinement. I have had to deal with it also in the wives of the tradesman and working artisan.

The habit of drinking creates a morbid desire for more drink, overcomes the will, blunts the moral sensibilities, and makes everything subservient to its demands. What has struck me as the leading and uniform condition in every variety of the disease, is the utter helplessness of the patient. I have never, to my recollection, lost an opportunity of trying to reform a drunken patient by every argument and plan which seemed to hold out hopes of success; and I regret having to confess that I cannot call to mind a single instance in which I have succeeded in an experience of nearly twenty years; and this has convinced me that the home of the patient and the supervision of friends do not constitute the proper surroundings for a dipsomaniac.

I am sure you will agree with me that one of the most painful positions which we are called upon to occupy is when we have reason to suspect secret drinking as the cause of a very uniform set of phenomena, viz., persistent gastric derangement. Especially is this the case in the clandestine stimulation of women. When we are first consulted, we have no reason to suppose that the cure of the patient is a matter of difficulty, or relief far off. So insidiously does the habit commence and grow, so secretly is it practised and the habit formed, that it is some time before the dreadful suspicion forces itself upon the most experienced practitioner; and, when discovered and the truth revealed, it requires the greatest tact to bring about its recognition by the patient and her friends; and now, having put the case fairly before those interested in the victim's welfare, we only find ourselves on the horns of a dilemma, for whatever treatment we adopt is sure to end in disappointment. Great as our anxiety may be for our patient's welfare, still more powerful the mania for drink; and the co-operation of the patient, although faithfully promised over and over again, is never obtained.

The tears and solicitations of friends and the most vigilant watching are as nought to the victim who has entered once within the meshes of that passion from which she is, under the present state of legislation, seldom extricated, and for the best of all possible reasons, that the power of the patient to keep herself is *nil*—the desire for reform and the best intentions are often manifest, but the mania reigns supreme. With this set of circumstances, we have most of us frequently had to deal.

Cunning and untruthfulness is another leading characteristic of the dipsomaniac. Persons, who, up to the time of their contracting the disease, were regarded as uniformly truthful and honest in every relation of life, now totally disregard the good opinion of their friends. The insensate craving for drink being paramount, takes a first place in their disordered minds, rendering everything else subservient to it.

I could give the history of numerous cases strikingly affirmative of the view I am postulating, but it would only be wearying you were I to do so; you know perfectly well, from your own experience, the "sad and dreadful history". Suffice it to say that there is no strategy, no humiliation, no sacrifice too great for the purpose of obtaining the, to them, necessary stimulant. One case, which has only just died, I may relate, as typifying a common case of this disease. The wife of a working man came under my care, with fractured ribs from falling down stairs while attempting to descend when drunk. She died some months afterwards, of renal dropsy. Her husband's history of his married life is very suggestive; he says "she took to drinking almost before I knew about it. I abused her, I thrashed her, I kept her without money; she pawned everything she could lay her hands on—the children's clothes; my Sunday suit I had to send to a neighbour's out of her way. I consulted a lawyer; I asked him if, by paying a sum of money, I could get a separation. He told me I might as well throw my money in the street. I went to a magistrate and told him about the pawn-tickets being all over the place; I have got a basinful of them; the reply I got was, 'My good man, I cannot help you; you must make the best of it'". I have seen this man cooking his children's food in the dinner hour, in his own unskilful way, while his wife lay a mass of filthy rags on the bed, quite drunk. I have seen it more than once, and there is no remedy. I have had numerous opportunities of observing the hereditary nature of this malady; I have seen husband and wife, both having had drinking fathers, confirmed and helpless drunkards. The cousins, bearing the same name, the uncles and consanguine connections of the same family, are all drunkards to my certain knowledge. I know one family, with a drinking father, who has lost one son with delirium tremens, and his other two sons have had to be treated for it. Dr. Druitt, in his evidence before the Select Committee on this subject, gave it as his opinion that there was no doubt that it was hereditary, and said that "a drunken father and mother, or a half insane or eccentric father and mother, would be likely to have drunken children. I have little doubt that a large proportion of the great infantile mortality, which is causing considerable comment at the present time, may be traced to drunkenness in the parents. We have all of us seen examples of the utter inability on the part of the patient to resist the habit, whether it be of the intermittent or periodic drunkenness, or daily habit of drinking. I know a man, the subject of the former condition, who will know some days before when an attack is coming on; he will drink hard night and day for about a week, and then suddenly leave it off, requiring to be treated almost every time for delirium tremens. This man thus expresses himself as to his mental condition at those times: "If the knife were at my throat, I must have it;" meaning the drink.

Macnish, in his *Anatomy of Drunkenness*, quotes a case, which is very confirmatory of what I have stated: "A gentleman of very amiable disposition, and justly popular, contracted habits of intemperance; his friends argued, implored, remonstrated; at last, he puts an end to all importunity, in this manner, to a friend who was addressing him in the following strain: 'Dear Sir George, your family are in the utmost distress on account of this unfortunate habit; your moral influence is gone; your health is ruined; and, depend upon it, the coats of your stomach will soon give way, and then a change will come too late.' The poor victim, deeply convinced of the hopelessness of his case, replied thus: 'My good friend, your remarks are just, they are indeed too true; but I can no longer resist the temptation; if a bottle of brandy stood on one hand, and the pit of hell yawned at the other, and if I were convinced that I should be pushed in as sure as I took another glass, I could not refrain. You are very kind; I ought to be very grateful for so many kind good friends, but you may spare yourself the trouble of trying to reform me; the thing is impossible.'"

Some people, like the followers of Mahomet, when they cannot get drink, take readily to opium; and the designs to acquire a supply of the drug, when obtaining it seems impossible, are very remarkable. I knew a lady in London, the wife of a medical man, who, from precautions that had been taken was unable to get drink, and took to opium. The laudanum bottle in her husband's surgery became empty with a mysterious frequency; the item in the chemist's bill for tincture of opium revealed the truth, and more precautions were taken to cure her of this new phase of her disease; but she would have it at any sacrifice. I have known her go to her husband's medical friends in the neighbourhood and say that he was at a case, and had sent home for tincture of opium; she could not find the bottle; would they let her have a supply as the messenger was waiting? This was practised so frequently as to render the actual state of things manifest. I have seen opium-eating and persistent drinking together in the same patient.

How frequently it happens that the medical adviser is the first to recognise the habit of secret drinking on the part of the patient. I know from personal experience that this is so. I remember having to bring the fact before the father of a young lady, who had charge of his house; and shall not readily forget the indignant reception the painful intelligence met with; he was sure I was mistaken. I have been the first on several occasions to have to point out to the husband the growing tendency of the wife to take more than was proper in the way of stimuli; and I never hesitate to draw attention to it, even before it has become a confirmed habit. I am one who believes, moreover, that a heavy responsibility rests upon our profession, not only in exercising the greatest care and caution in prescribing stimulants, but in having an ever watchful eye on those whose tendencies seem to point in the direction of taking too much. I am of opinion that there are thousands of persons who have not yet become drunkards, who, nevertheless, possess within themselves the innate undeveloped alcoholic tendency, which is only waiting to be lighted up, as it were, to make them confirmed dipsomaniacs. I believe, firmly, that certain forms of drunkenness are pathological conditions—disease of the mind, and disability of the body—which every intelligent, well-informed medical man should have no difficulty in recognising; and, as conservators of the public health and national prosperity, in everything directly and collaterally affecting the mind and body, the solution of this great social problem belongs more to us than at first sight seems apparent. It is a matter for congratulation that the effects of alcohol are daily more recognised by members of our body. The careless glass of sherry, and promiscuous glass of bitter beer, are becoming things of the past; and, without resorting to the extreme of total abstinence, stimulants are used by medical men and not abused; they are taken in a physiological way, and, I believe, this is having its effects on the better class of society generally, and wine-drinking, which but a few years since, was carried on much too freely, is becoming daily less prevalent.

Dr. Nugent, Inspector-General of Lunatics in Ireland, says that there is a very close relation between the results of the abuse of stimulants and insanity. If there be a predisposition to insanity, drink is sure to develope it; and, on the other hand, there are persons who show their insanity by a disposition to drink. He relates the case of a gentleman who was insane, and had a brother who took to drink. One brother became a drunkard, and the other became insane, without showing any tendency to drinking. In this case the hereditary disposition showed itself, in one by actual insanity, and in the other by habitual drunkenness. He fully recognises the disease called dipsomania, and refers to a lady who had been a most exemplary nun for fifteen or twenty years; in consequence of her devotion to the poor, attending them in fevers and like cases, it seemed necessary for her to take stimulants; these stimulants grew to be habitual, and she had been compelled five or six times to place herself in a private asylum. In a few weeks after being let out she would relapse; although she was believed to be under the strongest influences of religion, and of the most virtuous desires, there had been developed in her that disposition to drink which nothing could overcome or control. I have a painful recollection of a patient of my own, a young married woman, the subject of pregnant sickness, of such violence and persistency that it became a question of induction of premature labour; her emaciation and loss of strength was so marked. Nothing seemed to enable her to retain any form of nourishment but small quantities of brandy and soda-water. She went her full time, and did well; but the recourse to brandy and soda-water continued after my attendance ceased. I attended her three or four times subsequently, but she was a confirmed dipsomaniac, and ultimately died from the effects of excessive drinking. She not only killed herself, but, to my certain knowledge, ruined her husband. This piece of bitter experience, together with other instances, has made me very chary how I prescribe brandy and soda-water. I believe it is a very seductive fluid; it appears to produce a quick and decided sense of well being. Gentlemen, I believe that there was more in the notorious "medical declaration" than many of us like to admit, and "that the inconsiderate prescription of alcoholic drinks for their patients by medical men had given rise, in many cases, to the formation of intemperate habits". I am of opinion that small doses of stimuli at regular intervals, in cases of exhaustive disease, are more useful than larger ones; a large dose of alcohol often defeats itself, by leaving a recognisable depression, where small doses answer the immediate purpose, without any reaction being manifest. I have had personal experience of this when suffering from typhoid fever, with severe gastro-enteric phenomena, and profuse sweating. I well remember the new life I felt on the admixture of three drachms of brandy in two ounces of water, although I thought my physician, who attended me kindly and carefully, very infinitesimal in his allowance, when he used to direct a three-ounce bottle to be filled and last me the twenty-four hours.

I would submit—1. That intemperance (in the forms I have mentioned) is a disease; 2. That its primary cause is frequently a constitutional susceptibility to the alcoholic impression; 3. This constitutional tendency may be inherited or acquired; 4. It is amenable to proper treatment in the same degree as other diseases are. Any one who has attentively watched the pitiful condition of a dipsomaniac, must have observed the state of unrest of the whole system, even when free from the disturbing influences of drink. I contend that it matters little for all practical purposes, whether the drinking have produced the insanity, or insanity the habit; we have to deal with the facts as we find them. A man or woman suffering from an irresistible craving for alcoholic stimulants or habitual use of opium, without the power of resistance, is sufficient in itself to render the victim a person of unsound mind, and dangerous to himself and others; it requires no fine distinction or definition of the form of drunkenness, it is enough that it is confirmed and persistent. The law refuses to recognise any form of drunkenness as insanity, and, consequently, no provision is as yet made for the proper care and treatment of these cases. The late Dr. Forbes Winslow, in his evidence before the select committee of the House of Commons, said, "He was strongly in favour of the establishment of inebriate asylums in England. To his mind such institutions were one of the great and crying wants of the age; as he was sure that the habitual drunkard suffered from a form of insanity, although not insanity which comes within the letter of the law." Institutions, distinct and apart from ordinary lunatic asylums, would, he thought, tend very much to diminish the amount of drunken insanity. Dr. Druitt considered that inebriate reformatories were quite as necessary as lunatic asylums.

I believe it to be inevitable that this question cannot much longer be procrastinated, and that compulsory detention of these cases for a sufficient length of time, in properly managed institutions, would result in the cure of many that now go down prematurely to their graves. The difficulty of recognising the proper sort of cases I believe to be purely ephemeral. The fact that a man is continually or periodically a drunkard and bringing his family to ruin; or that a woman is squandering her husband's earnings, and making a frequent exhibition of her pitiful state, are facts in themselves likely to become sufficiently notorious, as to leave no difficulty or doubt in obtaining such reliable evidence as to readily avoid improper interdiction and detention.

It is a remarkable fact that the State and public bodies will seek the counsel of our profession with the greatest avidity; make a parade of collating the opinions of experts on any special subject about which there is doubt; and, after going through the form of obtaining the information they seek, quietly let it end in so doing. One member of Parliament, to whom I mentioned this disinclination to act upon scientific counsel, said coolly that the reason was "that the profession were never agreed". This, unfortunately may be the case in respect to matters connected with their own organisation and interests, but, in respect to questions affecting the public good, it has almost always shown a unanimity of opinion on matters of special importance. This tardiness in dealing with such an important question has other causes; it takes honourable members all their time to keep matters right with their constituents; and the public does not regard affairs of this sort as of any importance. It does not affect their political rights, as far as they know; in fact, here is the secret, "as far as they know," for they have, in all probability, never thought of or been told anything on the subject. But, indirectly, how important is this question to every member of society; how many a family can point to friends ruined in circumstances, a sickly offspring, hopes and prospects of generations blighted, valuable lives lost which might have been reclaimed, property squandered, poverty and penury, widows and fatherless children, where thriving families, full of hopeful prospects, might have been; all because our much vaunted British House of Commons refuse to give attention to questions of the most vital import.

Another cause of delay, in dealing with this question, is the opposition of religious bodies; conscientiously earnest in their opposition, doubtless, who regard all intemperance alike—a sin—to be dealt with by primitive means alone. Surely these people could have no objection to the reclamation of any man or woman steeped in what, if they please we will, for argument's sake, call "vice". They only regard it from their uninformed point of view. Whether they admit the existence of such a thing as the alcoholic diathesis or not, on the broad grounds of Christianity their objections must immediately cease; as to reclaim a helplessly fallen moral victim is the essence of their creed. It is further objected, that admitting any form of drunkenness as a disease, furnishes an excuse for continued indulgence, and relieves the inebriate of responsibility. Nothing could be further from sound reasoning. When a person believes that he has a disease, he is the more likely to seek a means of cure; consults his medical attendant; and may, by taking this view of the matter, try to change his mode of life, and co-operate with his adviser in an effort at being cured. Another objection is, that many relapse into their old habits after being treated in sanatoria. Now, I will undertake to say that the cures of inebriates would far exceed, in numbers, the recoveries of insane patients as at present understood; added to which, we know very little, as yet, of the statistics of these cases; for, except a few private establishments on the voluntary principle, we have no institutions of the kind in the kingdom; and in those countries where they are established under governmental regulations, the reports are most gratifying. We all know that the late Mr. Dalrymple occupied much time and thought in accumulating evidence and endeavouring to surround this question with its proper importance. On July 6th, 1870, he brought in a bill for the purpose of dealing with the subject; it was referred to a select committee.

There were examined on behalf of British medical experience Drs. Boyd, Crichton, Peddie, Nugent, Mitchell, Forbes Winslow, Dalrymple, McGill, Christie, and Druitt—ten in all—all of whom gave unanimous testimony as to the necessity of State interference in the interdiction of the habitual drunkard, and their proper care in inebriate institutions.

Dr. W. Lauder Lindsay, who has devoted much attention to this great question and has contributed considerably to what has been written on the subject, speaks most highly of the Canadian Bill, entitled, "An Act to Provide for the Interdiction and Cure of the Habitual Drunkard", which is published in full in the *Edinburgh Medical Journal* for September, 1870. It is strange that legislation on this subject should take a practical form in our colonies, before anything definite is arrived at in the mother country. America and Canada have established institutions, and it is creating attention in Australia, where habitual drinking is freely spoken of as the "curse of the colony", the press frequently devoting leading articles to the subject. A New Zealand paper remarks: "Why should we continue to make any distinction between the habitual drunkard and the lunatic? Why put the latter under restraint and suffer the former to go free? They are equally dangerous to society, and should be equally sequestrated from it." Another editor says: "They must, if rescued at all, be rescued per force; and their very inability to help themselves renders it necessary that society should deal with them as it deals with insane persons—put them out of the reach of doing harm to others or themselves."

Mr. Balfour Browne, in his work on *The Medical Jurisprudence of Insanity*, thus concisely refers to the apathy of the legislature in respect to this matter: "The English law refuses to interfere with the liberty of an individual, even although he may be an habitual drunkard. The law of England has a superstitious regard for the liberty of the subject. And so, out of respect for the theory, it allows an individual to deprive himself of all liberty, to place himself in a position in which there are numberless temptations to crime, and no protection for the commission of criminal acts, to cultivate disease in himself and others who may come after him, and to sow the seeds which will grow up either in crime or insanity in the next generation. But no, the law of England will not restrain the habitual drunkard. The liberty of the subject is allowed to render persons, in the words of the Canadian Bill, of grievous injury, as well to their relations as their creditors; it is allowed to stand in the way of the reclamation by a 'reasonable and regular course of treatment of many who might be made useful citizens of a State, which is exhausted with the weight of its burthen of disease and crime'."

One thing is certain, and that is, that long continued habits of intemperance almost invariably render the individual incapable of managing his own affairs with any efficiency, and it would be reasonable and in conformity with the expressed opinions of physicians in all countries to restrain individuals thus affected, and in this way give certainty of ultimate recovery.

But, as yet, no measure exists in this country to prevent this most pernicious habit. An unsuccessful attempt has been made to legislate for inebriates, but the health of the community, although it should be the first object of government, seems to be of small consideration in comparison with trumpery little rights of property. It is in keeping with England's character as a nation of shopkeepers, that the excellence of its civil laws and their administration is beyond all question—almost beyond all rivalry; while its sanitary arrangements are of the most defective nature. It is only recently that health bills have received any general attention, and even now the attention which they do receive is inefficacious to secure anything like a satisfactory settlement of questions of the most paramount importance.

Those persons who shut their eyes to the close connection which exists between disease and crime are careless observers. Those who, while they legislate for the latter, ignore the existence of the former are careless legislators.

It appears to me that it is nothing less than monstrous that subjects like this which would appear to demand the foremost attention of our legislature should be made subservient to so many questions of comparative insignificance. I believe that if the medical profession were more freely represented in the House of Commons, it would be of the greatest advantage to the nation and to the profession itself; and I venture to express the hope that such may some day be the case, that gentlemen pursuing the higher walks of our glorious profession may be able and as well possess the inclination to give up some portion of their well earned leisure to serve their country in the British House of Commons, believing, as I firmly do, that no class of men would be more fitted by their education, culture, and superior attainments to do honour to the profession to which they belong, and to be of the greatest possible use in the House to their fellow men. In the meantime, it behoves us to speak in language that admits of no compromise or misinterpretation; the oft-repeated opinions of ourselves and our leading psychologists on this great question brought prominently before the public on every suitable occasion cannot fail to create a mighty echo in the national mind.

MODIFIED SYPHILIS.

By J. F. PORTER, Surgeon-Major, Assistant Professor Military Surgery, Royal Victoria Hospital, Netley.

MR. MORGAN's views on modified syphilis, published in the JOURNAL of June 13th, have afforded me great interest, and, as I have entertained the same opinions for a considerable period, I beg to offer my mite of experience on this important subject.

For many years after joining the profession, I was led away by the belief that there were two forms of primary venereal sores, "infecting" and "non-infecting"; the former followed by secondaries, the latter not so. After some experience in the army, at home and abroad, I found I was frequently disappointed in my prognosis; that some of the most simple soft sores, or excoriations, which healed in a few days with the application of cold water, were followed in due time by secondary symptoms of mild form, such as two or three coppery patches on the face or trunk, a sore throat, or cracking of the palms of the hands. Such cases completely upset my mind as to the doctrine of duality, and I came to the conclusion that, though I might almost to a certainty point out a sore which would be followed by secondary symptoms, yet I was unable to point to any simple venereal sore and say, this will not be followed by secondaries of some character.

It may be said I overlooked the infecting sore, but, having been nearly nineteen years in one regiment, I was in a position to know the constitution, habits, character, and temperament of every man in it; and, as the commanding officer punished men whom I reported as having secreted disease, I seldom had a complaint to make of non-attendance at hospital on the first appearance of a sore, and consequently had every opportunity of judging whether the men were infected, or had any trace of an indurated sore, which might have given rise to the secondary symptoms apparently following soft sores. Induration, besides, is a condition not easily got rid of.

I admit that venereal disease in all its forms is, to use a vulgar expression, a "lying disease", and that it is most difficult to obtain simple facts or straightforward answers from any class of patients suffering from it. I have, therefore, in my investigations, been most careful to make minute examinations.

With regard to Mr. Morgan's theory, "that the vast majority of primary sores are not derived from sores, but from the inoculated discharges of constitutionally infected women", I may state that, when serving in Saugor, Central India, in 1865, the admissions into hospital in my regiment from venereal sores were numerous, and caused me much anxiety. At my suggestion, I was permitted to take into custody, for medical observation, the prostitutes (natives of the lowest type) frequenting the neighbourhood of the barracks and cantonments; I carefully examined them with a speculum, and sent those diseased to the civil hospital for treatment. These unfortunate women, it was well known, were the source of the disease among the troops; but I was surprised to find that nearly all suffered from a purulent vaginal discharge, and not from true syphilis, a sore being but seldom met with.

The result of my endeavour to check the disease was satisfactory, as may be seen by the following figures:—*Admissions*—January, 1865, 18; February, 19; March, 25; April, 22; May, 19; June, 4; July, 1. In the month of August, the regiment left the cantonment in consequence of cholera. The system of supervision of the prostitutes was commenced on the 17th of May, and 15 of the 19 admissions during that month were prior to this date, 4 only having been admitted during the latter fourteen days. These figures, which I recorded at the time, and have now before me, may be found of some interest.

THE EFFECTS OF THE BRITISH MEDICAL ASSOCIATION:

Abstract of the President's Address delivered at the Annual Meeting of the Southern Branch.

By W. R. E. SMART, M.D., C.B., Inspector-General R.N., President of the Branch.

DR. SMART congratulated this newly formed Branch of the Association on its auspicious title, and its success. The Association was truly the great federal republic of medicine, made up of many Branches and districts of Branches, each holding its autonomy and exercising self-government, while abiding by the general laws and regulations of the Association, to which its representatives were sent at the annual great meetings. The Association now numbered about six thousand members, and its organisation had extended into Scotland and Ireland. The Southern Branch, although the latest offspring, had before it a bright future; and its constituency was more varied than in most other Branches, as in it the civilian, the naval, and the military elements of the profession were blended in sufficient numbers to produce mutual strength and to effect much for general good. They had engaged to rally round and combat for, if need be, the principles so long and well maintained by the Association, and to serve under it in the spirit with which, in this garrison town, they were used to see young soldiers actuated by the names of glorious victories emblazoned on the colours of their regiments to seek to obtain fresh honours in new fields; for, like them, they also might proudly scan the battles fought and victories already won, deriving from them a noble spirit of emulation. It was a saying of an ancient victorious monarch, that "to conquer self was a greater achievement than to have subjugated cities". And in this lay much of the honour of their Association. They might glory in the extension of friendly social feelings, so that those local and tribal dissensions which were formerly imputed by their critics as a true characteristic of the doctors were of rare occurrence within the bounds of their membership. This had contributed greatly to the elevation of their profession, and to the increase of its influence for good. This had been effected by the diffusion of a purer ethical code impressed on the minds and spirits of men, rather than by written laws enforced by tribunals. Out of this there had sprung a charitable feeling, which made effort to aid the least fortunate among them, and to succour those who had been left unprovided for by them by means of a benevolent fund.

Secondly: Much had been done already towards consolidating the vital interests of the profession. Thus it was greatly due to the voice of the Association that a Medical Council had been established to register all legally qualified practitioners, and to form a standard of therapeutics embodied in a national Pharmacopœia, that had supplanted the too numerous productions of colleges, and to aim at uniformity of education and tests for the entire kingdom. Although these last desiderata had not yet been accomplished, there was ground for hoping that when the mind of the profession was sufficiently educated to be of one accord on the essentials, these great points of internal reform would certainly be achieved.

Thirdly: Its external utility was amply displayed in the successful operations of its "State Medicine Committee", to which it was in a great measure due that they had any Public Health Act, supervising the eradication of the causes of diseases in cities and towns, by sanitary measures; and, although much still remained to be done, yet it might be confidently predicted that the voice of their profession, heard in the repeated warnings of this Committee and its district Branches, would make itself not merely listened to, but attended to. It had already triumphed frequently in the cause of the public, over the narrow obstructiveness of corporations and vestries. Again, by vigilance of the Parliamentary Bills Committee, erroneous measures had been corrected before obtaining the force of enactments. Undoubtedly, through its influence, much had been gained by those of them who undertook the care of the sick poor, and by those whose office it was to treat sick and wounded sailors and soldiers in the service of the State. For the last divisions, he might state that they were fully sensible of, and gratefully acknowledged the friendly hand that had been extended on more than one occasion, assisting them to obtain a due consideration for their labour and calling.

Fourthly: The Association might glory in its having conferred lasting benefits on the sick poor by persistent efforts to obtain mitigations of the too levelling and centralising policy of the Poor Law Board, in whose economical reforms acts were done oppressively to the sick and those disabled by age. The details of the Poor Law were much more mercifully administered now than they were a few years since, thanks to their profession in a great degree.

Lastly: In a scientific direction, the Association had done much by its *Transactions*, and of later years by its JOURNAL, which, under its present editorship, was second to none, and had become the fair exponent of the views and studies of its individual members. And, as much by its annual meetings, for the general discussion of the objects and management of the Society, as well as for the advancement of science, it brought home to them concisely and lucidly a summary, and the results of all the recent investigations devotedly pursued by the most illustrious men of the day. And now, at length, a point had been reached when a more direct participation would be taken in such investigations. To this end, a recommendation would be made at the Annual Meeting, 1874, to grant £200 in aid of researches in anatomy and physiology, the action of remedies, clinical medicine, and surgery. All these things were demonstrations of innate strength, marked by slow and steady growth, and as successive triumphs worthy of being recorded, and likely to arouse enthusiasm among them, akin to that the soldier felt when he enlisted in a regiment with untarnished laurels, to follow its glorious colours into fields where fresh honours were to be participated in. Each of them should strive to augment and maintain what had been already secured by the elder Branches of their Association, and to prove themselves not unworthy of being enrolled in the same list.

Proceeding next to local arrangements, he spoke of the results obtained by the Contagious Diseases Act, which the Admiralty had been prominent in instituting and maintaining in spite of an unprecedented clamour in the name of a pseudo-morality and of public decency, which, as he contended, had been greatly advanced by its operation; and he called on his audience to proclaim their knowledge, so that the arm of the Government might be strengthened, and the nation enlightened, so as to give a wider adoption of a great sanitary principle. In another direction, he believed that equal good would be derived in the direct action of Government as a corrective to the slowness of municipal authorities in stamping out the causes of some zymotic diseases. Among these, he instanced the fact that the causes of enteric or sewer fever were never absent in certain districts of these towns, especially in the hastily constructed houses allied to the barracks at Eastney, which were of themselves, perhaps, the finest in England, from among the men quartered, in which there were more cases of the disease sent to Haslar Hospital than from all the more numerous bodies of men under control of the Admiralty quartered here. He attributed this to the very imperfect sewerage and water-supply of the neighbourhood of the barracks in which the families of the soldiers resided for the convenience of being near the barracks. In addition to his personal observations, he quoted those of the medical officers immediately concerned, in proof of the facts. While admitting that much was being done in securing better conditions in the newer portions, he contended that much remained to be done to correct past neglect, and expressed a hope that the Government would use its weight in stimulating municipal authorities to correct all proved evils arising from defective sewerage. The necessity for activity in this direction had become the more needful, inasmuch as otherwise the health of the Portsmouth district was second to that of none in the kingdom; and, with this corrected, it would stand superior to all. To this end, he advocated the strengthening of the hands of the health-officer, who had done very much, and was alive to all these imperfections. Whatever influence established or increased the public safety, the united strength of civilian and Governmental practitioners in working to the advantage of the community at large, would be seen and felt, and the hand should not be stayed so long as there was any remediable cause of which disease was an inevitable product. Reminding his audience that to aim at the prevention of disease was more conservative of life than the most successful treatment of it could ever become, he remarked that this fact had been strongly impressed on military medicine from the days of the great conqueror Cyrus, whose father Cambyses, according to Xenophon, taught him that the prevention of diseases in the camp was one of the most honourable functions of a general, while the office of treating diseases stood relatively to it, as the office of repairing the cast-off garments of the army. In this respect the medical duties had undergone great changes in modern times, although the executive had not yet fully surrendered to the medical element its authority in such matters, in apprehension that military strategy might be embarrassed or retarded by any secondary interposition. Whatever might have been the recent experience and practice of other conflicting nations, they might trust that at least the salutary lesson had been learned from the management, and in the results of their own little war in a deadly climate, that medical foresight and executive reliance on it would deprive war, under its worst aspects, of many of its horrors, while they tended to ensure rapid and complete success now, when brevity of a campaign had become an absolute necessity. Sooner or later the lessons now accumulating in social and military science must bring about a just appreciation of the fact that all questions concerning public health, that is of communities, were most safely dealt with by the science of medicine and its educated professors. To this desirable end, nothing could be more conducive than a deep sense of its responsibilities actuating the profession, and that sense was becoming more fostered now than at any previous period, mainly through the co-operation of all classes in one fraternity—the British Medical Association. They were striving in the right path by uniting to form a new Branch of it, to be guided by its principles in pursuit of its prominent objects, while hoping for the same results within their own local sphere. Let them, then, work together, zealously holding this sole end steadily in view.

THE GAINS DERIVED FROM THE USE OF THE LARYNGOSCOPE.

By PUGIN THORNTON, Esq.,
Assistant-Surgeon to the Hospital for Diseases of the Throat, and Surgeon to St. Marylebone General Dispensary.

THE profession will, I am sure, look forward with interest to the evidence resulting from Dr. George Johnson's experiments and pathological observations. In my desire not to encroach on the space of the JOURNAL, I fear that the observations I ventured to put forward in explanation of his interesting case were not quite clear. I will, therefore, briefly explain.

1. By idiopathic disease of the muscle, I mean disease of the muscular structure, independent of the nerve-supply. The laryngeal muscles are so superficially situated, that they are very readily affected by inflammation of the mucous membrane; and it not unfrequently happens that, when the inflammation subsides, the structure of the muscles remains impaired. This subject has been elucidated by Dr. Morell Mackenzie in his work on *Hoarseness and Loss of Voice*; and, under paralysis of the adductors of the vocal cords (page 5), he specially calls attention to the views of Professor Gerhardt, who enumerates two

kinds of rheumatic paralysis of the muscles of the vocal cords. In addition to this cause of paralysis, syphilitic ulceration and gummatous tumours occasionally leave atrophy of the muscles.

2. As regards the state of the crico-arytenoid articulation, it would be interesting to know if this joint was opened at the *post mortem* examination of Dr. Johnson's case.

3. It would be desirable to ascertain, if possible, what was the real condition of the muscles in this case. Were they submitted to a microscopical examination? I ask this question, because the information contained in the *Transactions* of the Pathological Society from Dr. Curnow's examination was briefly summed up as follows. "He reports that 'the laryngeal muscles on the left side are decidedly atrophied; those on the right side are somewhat larger; but he is inclined to consider them atrophied also'."

ABSTRACT OF LECTURES ON THE SURGICAL TREATMENT OF ANEURISM.

Delivered at the Royal College of Surgeons of England.

By T. Holmes, F.R.C.S., Professor of Pathology and Surgery.

Lecture IV.

In commencing the subject of popliteal aneurism, the lecturer stated that he could only hope to touch somewhat lightly on the numerous points which that subject presents for discussion. He hoped to establish, at any rate, the encouraging fact, that the treatment of this disease in our present hospitals in this kingdom is exceedingly successful, both by the Hunterian method and otherwise.

In the first place, the different forms of popliteal aneurism were spoken of as follows. 1. Traumatic and other rapidly growing aneurisms, in which the sac is very thin or imperfect. These are not readily made amenable to any of the milder methods of treatment. 2. Aneurisms which grow into and irritate the femur, and in which the irritation is liable to be reflected on to the sac of the aneurism, provoking its speedy rupture. Many of these aneurisms have been found to be only curable by amputation, of which some instances were alluded to. 3. The shape of the tumour influences its curability, those which are of the bud-like form being more amenable to milder measures than those which approach the cylindrical. 4. The progress of the symptoms has much weight in the choice of treatment, those in which the disease is acute being of evil omen for the success of compression. 5. The presence of concomitant disease, though it does not always forbid the success of ligature or amputation, certainly indisposes the surgeon to any cutting operation. The first step, then, in deciding on the method of treatment to be adopted in any case of popliteal aneurism is to ascertain, as well as can be done, these facts, and to give them their due weight on one side or the other. It is thus chiefly that our choice is regulated as to the selection of the ligature or of compression. The next question is, supposing compression to be first adopted, have we such definite evidence of its great success, as compared with the Hunterian ligature, as to make it our duty to persevere with it at all hazards, even when it seems at first to be doing no good? There seems at present no proof of this. The results of treatment all over the country by compression have not as yet been shown to be much, if any better, than those by ligature. Whether they could be made so is a different question. The effect of previous compression on the success of subsequent ligature does not seem to be favourable, but the reverse; and the success of the Hunterian operation in late years appears to be much greater than is shown by the statistics of Norris and others.

After these preliminary observations and a slight sketch of Hunter's operations (the preparations from two of which are in the College Museum, both successful), the lecturer went on to discuss the results of the ligature of the artery on the method of Hunter, *i.e.*, when undertaken as the sole means of treatment with no previous compression. The number of such cases contained in the "Table of Hospital Cases", on which these remarks are founded, was seventy-seven in popliteal and ten in femoral aneurisms. Two of the latter died; the rest succeeded. Of the seventy-seven popliteal cases, there were eleven deaths, and, in three other cases, the ligature failed, but the patients recovered—in one case by the old operation, and in the other two by amputation. In several of the fatal cases, death occurred really from other diseases, and in two from direct injury to the vein in the operation. The rarity of cases of secondary hæmorrhage, gangrene, or suppuration of the sac was very remarkable in contrast with what Norris's table shows. In fact, the whole result shows that, in the hands of British hospital surgeons, the Hunterian operation has proved about twice as successful of late years as was the case formerly, accepting Norris's table as a perfectly authentic and sufficient record; and the great success which has attended the same operation in the hands of individual operators, such as Syme and Mott, also tends to show that its dangers have been overestimated. In all probability, this improvement is due to improved surgical practice in this particular. The old operators (Hunter, Roux, etc.) were by no means careful to avoid injuring the vein; they exposed the artery much more freely than is now done; they could not dissect so quietly and systematically without chloroform as can now be done; and, as a general statement, it may be said that surgeons now are more practised anatomists and dissectors than they used to be. It results, then, as a practical inference, that, if for any reason compression seem contraindicated, or if its trial be unsatisfactory, the surgeon may resort to the ligature with confidence, as being a most successful operation.

Next, the general results of compression were stated from the same table. Compression had been tried in sixty-six cases with success, and in fifty-eight without success; in other words, it had failed almost as often as it had succeeded. It must be remembered, however, that these results might probably be much improved. It seems doubtful (to say the least) whether the compression-treatment is not often carried out rather negligently in our hospitals, being entrusted to students, nurses, and others, who have not the necessary knowledge or the necessary interest in the case. The success of compression depends on minute and long-continued attention to a number of details by a perfectly competent surgeon, and, in the absence of such minute attention, we do not obtain the results which the method is capable of yielding. Yet, even if compression were to continue to fail as often as it succeeds, this ought not to deter us from adopting the treatment, unless there be some plain proof that, when it fails, it decidedly spoils the prospect of successful treatment otherwise, of which as yet we have no proof. The average results of the whole number of cases treated by pressure are no worse than those of ligature, though they are not decidedly better, considering that compression is not generally used (as the ligature is) in the worst class of cases. At the same time, it is not to be denied that compression has dangers of its own. Excluding cases such as are recorded in old books, where the injudicious use of pressure has led to deep sloughing and arterial hæmorrhage—cases which should never occur now—there are a certain number where it has been followed by gangrene, and some in which the tissues of the vessels compressed seem to have been injured. This latter point was illustrated by Verdier's case, in which the condition of the external iliac artery was shown after four years' use of a compressing apparatus, and by Mr. O. Pemberton's case of the formation of an arterio-venous communication after compression of the femoral; and, though neither case was absolutely decisive, yet, taken in conjunction with other recorded instances, they showed, at any rate, the possibility of damage being done by the compression to the vessels and to the cellular tissue which surrounds them.

The further consideration of the subject was deferred to the next lecture.

CLINICAL MEMORANDA.

CASE OF MAMMARY ABSCESS IN AN INFANT THREE WEEKS OLD, CAUSED BY RETENTION OF MILK.

On June 17th last, Mrs. R. was safely delivered of a healthy female child, well developed. The child continued well till July 3rd, when I was called to see her. I found her suffering from colic, which was relieved by medicine. Next day, I also observed a swelling of the right mamma, which was hard and inflamed, and tending to point on the inner side. The following day, I opened it, when about an ounce of thick greenish pus escaped. On examination, I found a milky secretion escaping from the left breast, some of which I collected on a slide, and, for the purpose of comparison, put a drop of the mother's milk also on another slide. On examining them by the microscope, I found them to be alike in composition, only that the mother's milk contained about five times as many corpuscles as the child's, while the child's milk contained colostric corpuscles, which I did not see in the mother's. I do not find a case of this kind mentioned by any of the authorities within my reach, and several medical friends, to whom I have spoken of it, have never heard of a similar case. There can be little doubt that the abscess was caused by retention of milk in the right breast, which is a common cause of it in adults, as the left breast was sucked out regularly by my direction, and did not inflame. There is still an oozing of pus from the right breast from a second abscess which formed on the outer aspect of the mamma, and discharged its pus through the opening on the left side.

William Stephen, M.D., M.A., Fettercairn.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

LONDON HOSPITAL.

CASE OF ACUTE YELLOW ATROPHY OF LIVER: DEATH: NECROPSY.

(Under the care of Dr. HEAD.)

[Reported by Mr. LEWIS MACKENZIE, Resident Accoucheur.]

E. W., aged 28, was admitted on March 31st, under the care of Dr. Head. The following history was given by her sister, who worked with her in a millinery business. The patient had always been a healthy woman, and was believed never to have had any serious illness. She had been married twice, and had had four children. Her labours were always natural. During her recent pregnancy—*i. e.*, during the last seven or eight months—she often seemed very "lazy" and tired. She would often say, "I feel so tired, I can do nothing to-day". At times, she complained of pain; and, when asked "where"? she answered, "All over me". Her appetite failed, and she ate scarcely anything. She drank about two pints of beer daily, sometimes more; rarely spirits. She frequently complained of diarrhœa; "everything seemed to run through her". She vomited during the whole pregnancy at various times in the day. Her nose bled frequently, and she had several "shows". A month ago, she sent for a midwife, believing herself to be in labour, in consequence of some hæmorrhage from the vagina. Her breath had been very offensive for months past; her sister remarked, "it smelt as if she had been drinking". She would often tremble to such an extent that she could not thread a needle; her teeth did not chatter, but she seemed "nervous all over". Her features altered considerably. On March 28th, it was observed for the first time that her skin was yellow.

On March 31st, the patient walked to the hospital. When seen in the out-patient department, she answered questions naturally. She was slightly jaundiced, her skin being of a pale lemon tint. Pulse 112; respirations 20; temperature 97.4. She was admitted at 5 P.M. A few hours after admission, she miscarried. The fœtus seemed about eight months old, and it had apparently been dead several hours. No jaundice was observed in the fœtus. The labour was normal in every particular; no unusual hæmorrhage occurred. She asked to see the baby, and expressed herself as pleased that it was born. Two hours after labour, the pulse was 92; respirations 18; temperature 96 (in axilla).

April 1st, 11 A.M. She was reported to have slept well during the night. Pulse 112; respirations 18; temperature 99.2. She had vomited some mucus and coffee-coloured matter this morning, and had passed a pale motion with about five ounces of urine. Her breath was very offensive. Her jaundice had not increased. Her face was flushed, and her eyes were in the condition commonly seen in catarrhal ophthalmia; lips were red and swollen; gums spongy and bleeding. The heart seemed normal, except that the first sound was too much like the second. Prolonged expiratory and harsh inspiratory sounds were heard over both lungs. The liver-dulness reached in front as high as the seventh rib only, and did not extend below the free margin of the thorax. The edge of the liver could not be felt even on deep inspiration. The splenic dulness could not be estimated, on account of a diffused stomach-resonance. Thirteen ounces of urine were drawn off; it was found to be acid in reaction, of specific gravity 1022; its colour was like that of mistura rubra. Mucus was floating in it, and it contained no albumen. On boiling the urine, a crystalline appearance was produced; and a very distinct play of colours was produced on adding nitric acid to it. Under the microscope, one or two hyaline casts were found, and one cast was covered with bile-stained epithelium. After evaporation, crystals of tyrosine and leucine were found in abundance; and a large quantity of broken-down cells, seemingly epithelial, and granular matter, for the most part bile-stained. The patient, at 2 P.M., passed some small clots *per vaginam*, but the uterus was found to be firmly contracted.—8 P.M. She was delirious and apparently unconscious, rolling about in bed, and crying out "Oh my!" at intervals. The nurse reported that the patient had vomited some "coffee-ground-like" matter during the afternoon, and that she had great difficulty in forcing her to take food. Pulse 108; respirations 20; temperature 98.4 (in axilla). In order to ensure an accurate observation, the thermometer was held in the axilla, and the arm pressed closely to the side by an assistant; it was allowed to remain from fifteen to twenty minutes, and the temperature was thus taken twice before it was registered. The same care was taken at each thermometric observation.

April 2nd, 11 A.M. Pulse 108; respirations 18; temperature 97.4. She was still delirious. Her eyes were turned up so much under the upper lids, that no ophthalmoscopic examination could be made. The physical signs in the chest and abdomen were the same as yesterday, except that the liver-dulness reached to only the eighth rib in front. The uterus was contracted, and the lochia were normal. Twelve ounces of urine were drawn off.—8 P.M. Pulse 160; respirations 29; temperature 103.8. The patient seemed almost in a tetanic condition. At times, she would suddenly arch her back, and rest on her cervical vertebræ and her heels. Her head seemed unaffected. This tonic spasm lasted from twenty to thirty seconds, and was preceded by some clonic movements, in which she drew up her legs and bent forward her body as a person does in great abdominal pain. In the intervals, which lasted a variable number of minutes, the patient was completely comatose. She died at 10 P.M., in coma.

The necropsy was made by Dr. Sutton on April 3rd, eighteen hours after death; and the following account of it is abstracted from his *post mortem* register. The body was well nourished. There was well marked rigor mortis in the lower extremities, but not in the upper. The skin was everywhere bile-stained, but not very deeply so. There were also numerous hæmorrhagic spots scattered through the skin, about the size of the ordinary markings of flea-bites. *Head.* The scalp, skull, and dura mater were bile-stained, otherwise healthy. The pia mater was also healthy; not very noticeably bile-stained. The grey matter of the convolutions was paler than natural; in other respects, seemingly healthy. The white substance of the brain was not appreciably bile-stained; it looked normal. There was a small quantity of bile-coloured fluid in the lateral ventricles. *Thorax.* The pleuræ were bile-stained only. The lungs were congested, otherwise normal. The bronchial tubes contained a quantity of blood-stained mucus, and their mucous membrane was stained with bile. There were some small hæmorrhagic extravasations on the pericardium, and it was also bile-stained. The right ventricle contained some yellow bile-stained clots and fluid blood; in other respects, this cavity was healthy, as was also the right auricle. The left ventricle was contracted, but not very firmly so; there was a little blood extravasated into its endocardium, and its wall had a dirty reddish yellow appearance. The muscle was very easily torn, evidently abnormally softened; and one aortic valve was somewhat thickened, but seemingly not in any way to cause regurgitation. The mitral valves were healthy, and so was the left auricle. *Abdomen.* The peritoneum was healthy, only slightly bile-stained. The liver was not seen on cutting through and folding back the abdominal walls; but, on drawing down the coils of intestine, it was observed shrunken, as it were, and lying up under the ribs against the diaphragm. It seemed to have receded to some extent from its natural position. When removed, it was seen to be much smaller than natural, and much thinner from above downwards; owing to this, it was very flaccid, and folded by its own weight over the hand. It weighed 1 lb. 15 oz. Whilst it was being removed from the abdomen, it was noticed that there were many old adhesions uniting its peritoneal covering to the diaphragm and adjacent abdominal walls. Its surface was smooth, and of a pale reddish yellow colour. On section, its substance for the most part had a Turkey-rhubarb-like yellow appearance; almost all signs of lobular structure were lost. Here and there, however, were portions that seemed more healthy; in such parts, the intralobular veins were distinct; and here also there were some minute blood-extravasations. The liver-substance was not softer than natural, nor indurated. The gall-bladder was almost empty; it contained only about one or two teaspoonfuls of greenish mucoid substance, which was subsequently examined by Pettenkofer's and the nitric acid tests, and seemed to contain no bile. The mucus, previous to this examination, was removed. The microscopic examination of liver showed there was recognisable lobular arrangement; and, although the minute biliary ducts seemed smaller than natural, yet their outline was distinct, but the liver-cells were greatly altered, broken down, and almost completely disintegrated, and in their place there was a larger quantity of granular *débris*. There were many granules, which permitted light to pass readily through their centre; so-called fat-granules; also some yellow seemingly bile-pigment. The fibrous matrix of the liver was very distinct. The capsule was for the most part normal; but from its under surface a number of corpuscles were seen extending into the liver-substance, looking as if some new growth were going on at the time of death. The spleen was about the normal size, certainly not enlarged. Some old adhesions united it to the surrounding walls and tissues. When cut into, it was found to be very pale and much softened. The kidneys were bile-stained, and about the normal size. A few blood-extravasations were found in the mucous membrane of their pelves In other respects, these organs were healthy. The stomach contained a quantity of "coffee-ground-looking" fluid, and this and the mucus were with difficulty washed off. Blood-extravasations were seen in the mucous membrane. The uterus was large, and its walls were thick. It was not firmly contracted; and, owing to its patent condition, it was difficult to make out any cervix. Its lining membrane was soft and pulpy, and coated with small blood-clots.

Necropsy of Fœtus.—It weighed 5 lb. 14 oz. Its skin was not yellow; the membrana pupillaris still existed; and the nails were not well formed. The body was well nourished. On opening the abdomen, the liver was seen to occupy as large a portion of that cavity as is usual; it was purple in colour, and apparently healthy in structure. All the other viscera were normal. The fluid in the pleural sacs and the pericardium seemed to be bile-stained.

GENERAL MEDICAL COUNCIL
OF
EDUCATION AND REGISTRATION.

SESSION, 1874.

Wednesday, July 15th (continued).

Class Examinations.—Dr. HUMPHRY said that serious remarks had been made by several of the visitors of examinations as to the defective preparation of some of the candidates. It would appear as if they could not have attended the examinations held in their classes. The great number of rejections which took place must have a demoralising effect. A candidate was led thereby to look on the chance of rejection without anxiety, and to say—"I can but be plucked, and I can present myself again". It would be admitted by all that the main cause of the deficiency lay in the waste of time in the early part of the student's career; and to prevent this would be a great boon both to teachers and to students. At present, a teacher had no power to make his students attend his course. The horse might be brought to the water, but one could not make him drink or show that he had drunk. The best mode of teaching was that which was associated with examinations. When he (Dr. Humphry) was a student at St. Bartholomew's Hospital, one lecturer only, the late Mr. Wormald, combined examination with lecturing; but, as soon as the sign that an examination was to be held (a skull on the table) was seen, the majority of the class immediately disappeared. He himself examined his class for about ten minutes at the beginning of each lecture; but the class was never full until these ten minutes were ended. It very rarely happened that those who had attended his class examinations were rejected at the pass examinations. All the diligent students liked the plan of teaching by examination, and some would have it extended; but it was just the men that most required to be subjected to these examinations that could not be made to attend them. There might be some objections to his proposal, but he could not see that any evil would arise from it. It might be said that the enforcement of attendance on class examinations would throw additional work and responsibility on the teachers; but all good teachers would accept this. He moved:

"That the Council recommend that, in the case of certificates presented before admission to the examinations of the several licensing bodies, each should include a statement from the teacher or teachers, that the candidate had satisfactorily attended examinations from time to time held on the subject of study to which the certificate relates."

Dr. PARKES seconded the motion. He would only call attention to the fact that the subject had been already discussed several years ago by Sir R. Christison and other members, in a Committee of the Council, which had (*inter alia*) decided that the certificates ought to include certificates of attendance on class examinations. The recommendations of the Committee, however, had never come before the Council for formal adoption.

Dr. STOKES thought the system proposed a right one. As far as regarded clinical teaching, it had been carried out with success in the Meath Hospital for some years.

Dr. AQUILLA SMITH admitted the advantages of class examinations. The plan had been voluntarily adopted by several teachers in the medical schools in Ireland. But he must vote against the motion, because he did not think it advisable that the Council should interfere too much with the mode of education.

Mr. TURNER said that the question was one of great importance. He was glad to find that Dr. Humphry had not limited the examinations to any particular form; this must depend on the subject and on the size of the class. A small class, perhaps even one of fifty students, might be examined orally; but this could not be done with large classes. He had tried oral examinations in his class (a large one) several years ago; but he found that, while some of the students were too shy to answer before their fellows, others were too eager to answer. Dr. Lyon Playfair, when Professor of Chemistry in the University of Edinburgh, had framed a series of regulations for class examinations, which were now in force; under these, every teacher in the University now held at least two examinations by written papers in his class in the course of the session. He himself held three such examinations in the junior class and two in the senior. The students could not be compelled to attend these examinations, but more than a hundred did attend them. To encourage students to present themselves at these examinations, certificates of honour were given, not merely to the two or three top men, but to all whose answers reached a certain standard; those whose answers obtained 75 per cent. of the marks had a first-class certificate; and those whose answers reached 50 per cent., one of the second-class. He believed that the influence of moral suasion ought not to be overlooked in the consideration of this question. It must be remembered that there would be always some stupid students in the classes, with whom it was useless to hope to do any good. The giving of a mere formal certificate would be a farce; it should express what the student had really done. Another practical suggestion that he would make with regard to anatomy was, that the certificate should show how many months the student had been engaged in dissection, and what parts he had dissected. A record of this kind had been kept in Edinburgh by the late Professor Goodsir and himself (Mr. Turner) from 1846 to the present time.

Dr. STORRAR feared that the result of the adoption of the proposal would be to divide responsibility between the teachers and the final examiners. The matter was one of the internal administration of the schools.

Sir W. GULL said that the subject was one affecting school administration. The motion was good in principle, but not applicable in fact. He thought that it was beyond the power of the Council as defined by the Medical Act.

Dr. SHARPEY said that at the time when he began to teach in London (1836), it was the practice in University College to hold oral examinations in all the classes. He had held such examinations in his class weekly for some years; but he could not get through more than ten or fifteen names in an hour, and consequently a student was not examined more than two or three times in a session; only a certain number of students attended. For the last twelve years of his professorship, he had held periodical written examinations, giving five questions, such as might be fairly answered in an hour. But even this could not be done often. About a hundred students attended these examinations. It would be important to make attendance on the class examinations imperative. Allusion had been made to bad teaching, but there was such a thing as vicious examination on the part of members of the licensing bodies—not, however, from injustice or from personality. Some men who distinguished themselves in their respective schools were rejected when examined by the licensing boards. What could the teachers do in such a case? There was a want of correlation between the teachers and the examining boards. He was not inclined to agree with Dr. Storrar as to the evil of divided responsibility.

Dr. ANDREW WOOD said that the subject was just now pressed on the attention of the Council in consequence of the degree of ignorance pointed out in the reports of the visitors. The examining boards could do nothing but reject the ignorant candidates; but why should not the Council take measures to prevent men from going up to examination until they were prepared? A great improvement had been made in recent years in the institution of class examinations in many schools; but attendance was not compulsory. Legislation was not wanted for the good students; but it would be a boon to the idle student to compel him to attend the class examinations. He thought that it would be better to have less lecturing and more examining; and the examinations should be practical or written rather than oral.

Dr. APJOHN said that the plan of class examination was excellent, but was difficult to carry out in all cases.

Dr. ALLEN THOMSON had carried out class examinations with profit to the student. Of course, the manner in which the examination was conducted must vary.

Mr. QUAIN said that the Royal College of Surgeons of England had for some time required certificates of attendance at class examinations. What Mr. Turner described as being done in Edinburgh had been done for many years in University College. When he taught anatomy in University College, he examined twice a week (the junior and the senior classes) with the objects before him. In every class, medals were given, and certificates of honour to all who came up to a certain standard.

Dr. BENNETT could not agree with Sir W. Gull, that the question was one beyond the power of the Council. Much must be left to the action of the schools, but the Council could call attention to imperfections. Dr. Humphry's proposal was a good one, as an initiatory step towards improving the preparation of the candidates before presenting themselves for the examination for the licence.

Sir DOMINIC CORRIGAN said that the adoption of the motion would lead to a great system of lying. He objected to interfering between the teachers and their classes.

The motion was put to the vote and carried; 14 voting for, and 6 against it.

Limitation of Subjects of Examination.—Dr. ANDREW WOOD proposed:

"That it is desirable that, in the examinations on several of the subjects of the curriculum—such, for example, as botany, zoology, chemistry, and materia medica—the area of examination should be limited and defined."

There was a necessity for limiting the extent of examination in some subjects. This was done to some extent in the Universities of Cambridge and Edinburgh. He had mentioned Materia Medica, as it was absurd to expect a student to know the whole of such a book as Dr. Pereira's *Elements* (three large volumes). He did not think that any limit could be put on other subjects, such as anatomy, surgery, etc.

Dr. BEGBIE seconded the motion. He would not do so if it were likely to lower the standard of education; but accuracy rather than extent of knowledge was required.

Dr. STORRAR could not support the motion, as it went beyond the functions of the Council. The amount of Botany, Zoology, and Chemistry was defined by the University of London.

Dr. ACLAND supported the motion. All who had paid serious attention to students and examinations must have seen the difficulty which examiners had in knowing what the students had been taught. He had asked Professor Clifton at Oxford how it was that so few of his students presented themselves for examination for honours; and the answer was, that the range was so extensive that the best men would not compete for honours. The Council should not allow too much work to be thrown on students, but should ascertain how they could be best taught. They could not be properly taught if they were expected to go through the whole range of all the subjects.

Mr. MACNAMARA agreed with the spirit of the motion, but saw a difficulty in carrying it into effect. He did not know by whom it was proposed that the limitation should be made. Diversity of area should be avoided.

Dr. PARKES pointed out that the subject had been already brought before the Council in reports on professional education. The Council should ascertain from the various licensing bodies what were their limitations, and should endeavour to establish an uniform system. The visitors of examinations had noticed some of the chemical questions, to which it was not possible to expect proper answers from the students. Instead of two or three high-class questions, eight or ten should be given, of such a kind that an ordinarily well prepared student could answer them.

Dr. SHARPEY would caution the Council against limiting the area of teaching in the various subjects.

Dr. A. SMITH could not support the motion. The subject would have to be referred to a Committee at some time; but the Council should take no action at present.

Sir W. GULL would not limit the area of study, but would leave the matter to the good sense of the teachers and examiners.

Dr. HUMPHRY said that the fault of a large area of examination was that imperfect knowledge was acquired. The idea that the Council should attend to examination and not to teaching was a fallacy.

Mr. TURNER would not have the area of study limited. Teaching ought always to go beyond the mere requirements of examination; and the Council should do nothing to lead to the supposition that its intention was to limit the area of teaching.

The PRESIDENT remarked that the extent of the subjects mentioned in the motion was enormous; they involved many independent details, the recollection of which was a heavy charge on the memory. He believed that a student having a thorough knowledge of them could be a worse physician instead of a better. As to materia medica, what was the use of expecting young men to know a host of drugs which they would probably never prescribe.

Dr. WOOD said that his intention was not to interfere with the area of study, but to limit the amount of knowledge which the student should be expected to possess at the examination.

The motion was then carried; 16 voting for, and 2 against it.

Conduct of Examinations.—Dr. HUMPHRY moved:

"That it is important that two examiners, or an examiner and assessor, should be present at every clinical as well as oral examination."

Sir WILLIAM GULL seconded the motion, which, after a few remarks from Dr. Allen Thomson, Dr. Paget, Dr. Sharpey, and Mr. Turner, was agreed to.

Thursday, July 16th.

DR. PAGET, President, took the chair at 2 P.M.

Report of Committee on Adulteration of Food.—Dr. ACLAND brought up the report of the Committee appointed on the first day of the meeting; and it was ordered to be received and entered on the minutes.

Dr. ACLAND moved:

"That the Report of the Committee on the Adulteration of Food Act be considered paragraph by paragraph."

He warned the Council against deciding on having nothing to do with the subject; if it did so decide, its memory would not be blessed. He did not know, however, that more than one member was opposed to the consideration of the subject by the Council. Some might say, that the less the Council had to do with Government the better. This was right, as regarded the internal control of the profession; but, in such a matter as the present, the Council should offer its assistance to Government without waiting to be asked. It must be borne in mind that public analysts not only had to test food, but were performing a most important function in the examination of water. In this way, the water-supply of villages and farms, the purity of which had been unsuspected, had been found to be a source of disease. Another point to which he would call attention, was that the Universities had undertaken the task of examining in State Medicine; and one of the subjects was the analysis of food and of potable waters. If the Council did nothing in the matter, the Government might well at some future time say—"You should have told us that the Universities granted qualifications in State Medicine."

Dr. QUAIN seconded the motion, which was carried.

The several paragraphs of the report were then discussed, and, some verbal amendments having been made, it was adopted in the following form.

The Committee appointed by the General Medical Council on July 9th to consider the Report from the Select Committee of the House of Commons on the Adulteration of Food Act, 1872, in its bearings on the Qualifications in "State Medicine" or in "Public Health", instituted by any of the Bodies in Schedule (A) to the Medical Act, having duly considered the said Report, have adopted the following resolutions:

1. That no one should be eligible for the office of public analyst unless he be possessed of a certificate of competency in analytical chemistry, in the use of the microscope, and such other subjects as the Medical Council shall from time to time determine, granted by an examining board, or boards, or as hereinafter suggested; or a qualification as an officer of public health, which shall include these subjects.

2. That the office of public analyst may be held separately, or in conjunction with that of an officer of health.

3. That it is desirable that the granting the certificates of competency for the offices of public analyst and officer of health should not be confined to any single examining board, but that there should be one or more examining bodies for that purpose in England, in Scotland, and in Ireland.

4. That the Medical Council should have authority to define the subjects of examination required for public analysts and officers of health; and to publish a list of the bodies which comply with the conditions laid down.

5. That it is desirable that it should be made lawful that the qualifications of public analyst and of officer of health should be entered on the *Medical Register* as additional qualifications when the holder is already a registered medical practitioner.

6. That a deputation from the Medical Council should be appointed to obtain an interview with the President of the Local Government Board for the purpose of presenting the above resolutions.

HENRY W. ACLAND, *Chairman.*

The deputation was appointed to consist of the President, Dr. Stokes, Dr. Andrew Wood, Dr. Parkes, and Dr. Acland.

Conduct of Examinations.—Dr. HUMPHRY moved:

"That it be recommended that in no case should the examination of a candidate by any of the licensing bodies in any subject be conducted wholly, or in great part, by the lecturer or teacher in that subject in the school in which the candidate has been educated."

He said that the resolution was an important one, and affected most of the Universities. Until lately, the examination in all the Universities was conducted entirely by the teachers. A few years ago, the system was altered at Cambridge, and examiners were selected from without.

There were, however, very few Universities which followed this plan. The system of conducting the examinations by the teachers laid too much responsibility on them; and was obviously open to abuse and imperfection, even though the examinations were conducted by persons beyond all imputation. There could be no question that the system led to the limitation of the area of teaching, and that the lecturers were led to adapt the teaching and the examination to each other. Moreover, each teacher must, however unconsciously, indicate to his pupils the subjects on which he would examine. Teachers, also, being in the habit of examining, fell into a habit of putting certain questions; and the students readily found out the "tips" of their teachers. No doubt, the teacher was often unconscious that this was done; but at Cambridge it had been found that the questions of certain professors became quite familiar to the students. Another objection was, that in time all teachers and all examiners became more or less incompetent, and unless this were corrected in some way the examination must fall into an imperfect condition. He believed that he was expressing the opinion of many who were both teachers and examiners in their Universities, and who would be glad to have other persons associated with them in the examinations. An examiner in the University of Glasgow had expressed the opinion that it would be a great aid to have the examinations partly conducted by others. The resolution did not exclude the teachers altogether, as at Cambridge, where, perhaps, they had gone a little too far. There was some advantage in having part of the examination conducted by the teacher; but he should not have the chief share.

Dr. STORRAR seconded the motion.

Dr. PYLE said that for some time the examinations in the University of Durham had been conducted by examiners chosen from without.

Dr. ALLEN THOMSON agreed with Dr. Humphry's remarks. In the University of Glasgow, there were non-professorial examiners; the numbers, however, were too small, the range of men there qualified to examine being but limited. Perhaps before long it would be possible to increase the number. He felt some objections to the examination of a candidate by his own teacher; the examiners, however, should be teachers—indeed, teachers were the best examiners. In such a place as Glasgow, there was a difficulty in getting examiners for the collateral subjects, though there was none with regard to the practical subjects.

Mr. TURNER agreed generally with Dr. Humphry, but thought that he took too low a view of the effect on the teacher. The duty of a teacher was something higher than that of merely preparing a student for examination. The examination was a mere stepping stone in a man's career; the office of the teacher was to prepare him for the performance of his duties through life. The difficulty in Scotland in adding to the number of examiners had been want of funds. The question of appointing non-professorial examiners had for some months occupied the attention of the University of Edinburgh; and he had in his hand a scheme of alterations which only awaited the sanction of the Chancellor of the University and the Queen in Council. He hoped that the University would be able to carry it into effect next year. There were at present three assessors; but it was proposed to increase the number of extra-professorial examiners to at least seven, and even to twelve or thirteen if necessary. It was also intended that each of these additional examiners should be specially qualified to examine on some one subject. The professors in the Scotch Universities could not, consistently with the regulations, throw off their duties as examiners; but non-professorial examiners could be appointed to act in conjunction with them.

Dr. SHARPEY did not think that Dr. Humphry desired to take a low view of the duties of a teacher. He would suggest for consideration whether it might be possible for the Universities of Scotland to combine to hold their examinations in common, each conferring its degrees on its own alumni. In the meantime, the plan intended to be followed in Edinburgh was very satisfactory.

After some remarks from Dr. Apjohn, Dr. Macnamara, Sir Wm. Gull, Dr. Storrar, Mr. Quain, Dr. A. Wood, and Dr. Humphry, the motion was carried.

Dr. HUMPHRY proposed, Dr. STORRAR seconded, and it was resolved:

"That it is desirable that observation with the microscope should form part of the examination of candidates for a licence."

Dr. STORRAR moved:

"That in the opinion of the Council all examinations should, as far as possible, be objective, and conducted by persons who are experts in the subjects of the examination assigned to them; and that in all examinations, excepting those for degrees and fellowships, the questions put should be chiefly such as have a bearing on practice."

It was scarcely possible to find good examiners except among successful teachers. It had been said that examinations would be rendered more difficult by appointing experts; on the contrary, they would thereby be made easy. The more distinguished men on any subject were the most judicious examiners; crabbed questions were generally the refuge of bad examiners. The late Professor Graham was long an examiner in chemistry, both at the examination for matriculation and in those for degrees, in the University of London; and his questions were remarkable for good sense. The same was the case with Professor Stokes of Cambridge. One of the greatest miseries of teachers was the existence of a class of examiners who had to grind up for their own examination. This had been the case, and, perhaps, that was so to some extent. Examination by octogenarians had ceased; but one constantly heard of examinations being conducted by men, possibly very eminent, but not acquainted with the anatomy of the modern schools; and students had to prepare their knowledge so as to satisfy them. The examination ought to be in direct relation with the teaching of the schools. The Council was endeavouring to obtain simplification and improvement of examinations through the formation of conjoint boards; and men of as good standing as possible on the various subjects should be appointed as examiners. Mr. Quain had on a previous day said that men should be admitted early to the profession to supply the wants of the poor. But, if he (Dr. Storrar) had to make a choice between an ignorant man practising below the *Register* and one on the *Register*, he would prefer the former; because, in the latter case, the individual, having his diploma, had the power of going about and killing as many as Saul and David together. The Council should, therefore, be careful not to lower the standard of professional knowledge, so as to admit ignorant men to practice.

Dr. STOKES seconded the motion.

Dr. BEGBIE said that experts might not be good examiners.

Dr. BURNETT objected to the Council going out of its way to express an opinion that experts should be appointed.

Mr. QUAIN had not advocated the admission of a class of imperfectly educated practitioners. His observations had reference to the statement in one of the reports that the object of dividing the examination had been to enable the student to obtain a thorough knowledge of medicine. The real object was, that the examination should be such as candidates of fair average ability and industry could pass.

The motion was put to the vote and lost, 6 voting for and 11 against it.

Visitations of Examinations.—Dr. ANDREW WOOD moved, Mr. MACNAMARA seconded, and it was resolved:

"That the visitations of examinations be continued, and that the Executive Committee be directed to select visitors."

Friday, July 17th.

Dr. PAGET, President, took the Chair at 2 P.M.

The Appointment of Analysts, etc.—The PRESIDENT informed the Council that the deputation appointed on the previous day had obtained an interview with the President of the Local Government Board. He stated that the deputation had placed in the hands of the President of the Local Government Board a copy of the resolutions of the Medical Council; and that the President and the several members of the deputation had made a few remarks explanatory of the resolutions. They had also expressed the desire of the Council to co-operate with the Government, in any way within their power, which might now or hereafter be required for the development of the best means of education and examination in the various departments of knowledge which bear on the public health.

Conjoint Examinations.—Dr. PARKES, in pursuance of notice which he had given, asked the President if he could inform the Council whether the schemes for conjoint examinations in England and Ireland, which had been sanctioned by the Council, were being carried into effect?

Sir DOMINIC CORRIGAN did not think that there was any official information that the conjoint scheme for England had been sanctioned by the Council. The scheme for Ireland had been before the Council and had been sent back.

The PRESIDENT, in answer to Sir D. Corrigan, referred to a resolution of March 1st, 1872, approving of the English scheme, and allowing other bodies than those which had already taken part in it to do so without further reference to the Council. As to the Irish scheme, he believed that it did not make provision for the corporation of other bodies without further application to the Council. Replying to Dr. Parkes's question, he said that the Council were already aware how far the scheme for England had gone; they had also had information from Dr. Storrar as to the University of London, and the Apothecaries' Society had obtained a removal of their difficulties. He could not say that the scheme was absolutely completed, as there was still some legal difficulty as to the appointment of examiners from the Royal College of

Surgeons; but he did not say that these difficulties could not be overcome. In Ireland, the Apothecaries' Hall had expressed its desire to join. There was on the programme a report on the conjoint scheme from the King and Queen's College of Physicians, and apparently the formation of a conjoint board for Ireland was in a forward state.

Executive Committee.—The Council having balloted for the Executive Committee, the following members were declared to be elected:—Dr. Bennett, Dr. Acland, Dr. Sharpey, Dr. Quain, Dr. Andrew Wood, and Dr. A. Smith.

The Examinations in Chemistry.—Dr. APJOHN moved:

"1. That the Medical Council are of opinion that the number of paper questions in chemistry should not be less than ten, and that there should be no limit as to the proportion of those which the student is required to answer.

"2. That one-half of said questions should relate to general chemistry, and that the remainder should be taken from such departments of chemical science as have a bearing on physiology, pathology, and medical jurisprudence.

"3. That the *vivâ voce* examination should be such as would test the ability of the student to solve a few of the more simple problems in qualitative analysis, and apply to their respective uses the volumetric solutions of the *British Pharmacopœia.*"

Dr. PARKES seconded the motion. It was opposed by Mr. Turner and Sir D. Corrigan, on the ground that it entered too much into detail, and, on being put to the vote, was lost, 7 voting for and 9 against it.

Results of Examinations.—A table, showing the results of the examinations of the various licensing bodies, was submitted to the Council.

Dr. AQUILLA SMITH moved, Dr. BEGBIE seconded, and it was agreed:

"That the table showing the results of examinations be taken as read, and entered on the minutes."

The Conjoint Examination Scheme in Ireland.—The following letter from the King and Queen's College of Physicians in Ireland was read:

"King and Queen's College of Physicians, Ireland,
July 7th, 1874.

"Dear Sir,—By this post I send you twenty-five copies of the report of the College upon the report of the Committee of Reference, which this College adopted at a special meeting held yesterday.—I am, dear sir, yours faithfully, J. MAGEE FINNY, Registrar.—To Francis Hawkins, Esq., M.D., Registrar, General Medical Council."

Dr. AQUILLA SMITH moved, and Mr. MACNAMARA seconded:

"That the letter and report (May 1874) of the King and Queen's College of Physicians in Ireland on the report of the Committee of Reference be entered on the minutes."

Dr. APJOHN and Dr. LEET objected, as the original report was not before the Council.

Mr. TURNER moved as an amendment, and Dr. STORRAR seconded:

"That the Council acknowledge the receipt of the letter and report from the King and Queen's College of Physicians, Ireland, and thank the College for their courtesy in forwarding them."

The amendment was carried, and, having been put as a substantive motion, was agreed to.

The Period of Professional Study.—It was moved by Dr. FLEMING and seconded by Dr. APJOHN:

"That it be an instruction to the registrars before they enter the name of any applicant for registration on the *Medical Register*, to ascertain, by reference to the register of medical students, whether the period of time required by the Medical Council to be devoted to professional study has elapsed between the date of the applicant's registration as a student of medicine and the date of his licence; and further, that the registrar of each Branch Council shall report to his Council any case where this has been departed from, and take instructions from them as to any future proceeding."

The motion was negatived, 5 voting for and 9 against it.

Misconduct of an Aberdeen Graduate.—Dr. A. SMITH, in pursuance of notice which he had given, asked the representative of the University of Aberdeen if any proceedings had been taken by that university respecting an M.D. of Aberdeen, who was sentenced to four months' imprisonment at Inverness Circuit Court for fabricating certificates of vaccination.

Mr. TURNER, in reply, said that he had no information to give on the subject, but that he would communicate regarding it with the university.

The Apothecaries' Society and the Conjoint Board.—Mr. BRADFORD moved, Dr. STORRAR seconded, and it was agreed:

"That the following letters be entered on the minutes:"

"Apothecaries' Hall, July 19th, 1873.

"My Lord,—The Society of Apothecaries has desired me to communicate with you on the subject of a Bill introduced by the University of London into the House of Commons for removing certain disqualifications which prevented it from uniting with any two or more bodies in a conjoint examining board under the Medical Acts. This Bill was brought in on the 7th instant, was read a second time on the 11th, passed Committee without amendment on the 15th, and was read a third time and passed on the 16th. No doubt appears to be entertained of its being passed by the House of Lords this session.

"Under these circumstances, the Society desires me respectfully to draw your Lordship's attention to the correspondence which passed between the Society and the Medical Department of the Privy Council in 1872, and during the present year, and particularly to the letters addressed to the Society by the direction of your lordship, on June 14th, 1872, and March 24th, 1873. In deference to the suggestion contained in the letter of June 14th, 1872, the Society did not proceed with the Bill which it was about to introduce that session. Acting in the same spirit, the Society, as your lordship will see on referring to the correspondence of 1873, before taking any further steps itself, consulted the Government as to what its own intentions were, and received in reply the communication from the Privy Council of March 24th, 1873. Not only did the Society attach the greatest importance to this communication (which was received at the time of the session of the General Medical Council, and laid before that body), but it was regarded by the representatives of the whole medical profession as indicating the policy of the Government on the subject of medical reform.

"The Society admits that this letter did not go beyond an expression of what the Government itself was prepared to do; but, undoubtedly, an inference was drawn from it that the Government would not approve of any measure inconsistent with its own policy.

"It would appear, from the ease with which the Bill introduced by the University of London is being passed, that the inference drawn by the Society was incorrect.

"I am desired, under these circumstances, respectfully to intimate to your Lordship that the Society will introduce early next year the Bill which it had proposed to introduce last session, but which it refrained from doing in deference to your Lordship's suggestion.

"The Society further desires me to express the hope that, in promoting this measure, it will receive from the Government the same facilities as have been accorded to the University of London during the progress of their Bill.—I have the honour to be, my Lord, your Lordship's very obedient servant, (Signed) JAMES RICHARD UPTON,
"Clerk of the Society of Apothecaries.
"The Lord President of the Privy Council."

"Medical Department of the Privy Council Office, July 31, 1873.

"Sir.—I am directed by the Lord President to acknowledge the receipt of your letter of the 19th instant, informing his Lordship that the Society of Apothecaries intends early next year to introduce the Bill which it had proposed to introduce last session, and expressing the hope that, in promoting this measure, the Society will receive from the Government the same facilities as have been accorded to the University of London during the passing of their Bill. In reply, his Lordship directs me to inform you that, if such a Bill were introduced by the Society next session, no general measure of medical reform being then before Parliament, the Government would take the same course with regard to it as they have taken with regard to the University of London Bill of this session.—I am, sir, your obedient servant (Signed) JOHN SIMON.
"The Clerk to the Society of Apothecaries."

Mr. BRADFORD moved, Dr. STORRAR seconded, and it was agreed:

"That the following letter be entered on the minutes, the objection to the publication of it having ceased to exist":

"Apothecaries Hall, London, E.C., June 5th, 1874.

"My dear sir,—The Society of Apothecaries has given the fullest consideration to the views expressed on the part of the Branch Medical Council, as to the Society, in their present Bill, obtaining a similar power to that obtained by the University of London last year, namely, the power to make examination by the conjoint board an indispensable condition of being qualified to be registered as an apothecary under the Act of 1858. I may state that the personal feelings of the members of the Society would probably be entirely in accordance with the views entertained by the Branch Medical Council on this point.

"The Society as a body are, however, for the following reasons, in a position of considerable difficulty. Before any intimation of the views of the Branch Medical Council had been made to the Society, they had been obliged to deal with an amendment of a serious nature, proposed by Mr. Stansfeld, with the view of protecting the alleged rights of women; and the Society had succeeded in coming to a satisfactory arrangement with Mr. Stansfeld in reference to that amendment.

"I will presently point out the difference which exists between the cases of the University of London and the Society of Apothecaries.

But I will first explain that, if the Society were to attempt now to introduce a proviso in their Bill similar to that which exists in the University of London Act, it would be regarded by Mr. Stansfeld as an attempt to take away with one hand what had been conceded by the other, and would be resisted accordingly. I should add, that Sir John Lubbock concurs in the opinion which I am now expressing. The Society is, therefore, unwilling (whatever the personal feelings of the members may be) to run the risk of opposition to their Bill by an attempt to introduce a proviso, which does not appear to be an essential feature in their Bill.

"The following are the distinctions which exist between the position of our Society and the University of London:—1. The fact of no woman having obtained a degree or licence from that body would have rendered it difficult for that sex to obtain a *locus standi* before Parliament, so as to insist on the preservation of rights, the existence of which could not be even alleged; 2. As regards the two bodies in question, a comparison of the number of persons likely to be affected, on the one hand, in the case of the University of London, and, on the other hand, in the case of our Society, will make it clear that what could and did pass *sub silentio* in the former instance might rouse strong opposition in the latter.

"It has, I understand, been urged that the two Colleges have pledged themselves, on the completion of the conjoint board, to abstain from conducting separate examinations. That pledge the Society is equally ready to give if they become part of the conjoint board; a pledge, in fact, that, having joined, they will not (except under compulsion of a *mandamus*) admit anyone to a separate examination. The two Colleges themselves have at present done nothing more. The Society, therefore, for the reasons I have mentioned, are unwilling to imperil their Bill in order to secure what does not appear to them an essential feature of it.

"I take this opportunity of laying the Bill before you in the form in which it is proposed that it should go through Committee, and trust that it may appear in some respects considerably improved by the alterations which have been made principally at the suggestion of the Branch Council.

"I must, for obvious reasons, ask you to regard this letter as a private communication, and as not intended for publication.—Yours very faithfully, (Signed) WILLIAM DICKINSON, Master.

"To Dr. Paget, President of the Medical Council."

The Power of the Royal College of Surgeons of England to Expel Offenders.—In pursuance of notice, Dr. ANDREW WOOD asked the representative of the Royal College of Surgeons of England if the name of Matthew Bass Smith, which was removed by the Medical Council from the *Medical Register* at its last session, was still on the roll of members of the Royal College of Surgeons of England.

Mr. QUAIN stated that the Council of the College of Surgeons, in June 1872, resolved to remove the name of Matthew Bass Smith from the list of its members, in consequence of circumstances which occurred in a trial for manslaughter. But, having referred the case to the solicitor of the College, they were informed that the only bye-law of the College under which the case could be included did not authorise the Council to remove the name of Matthew Bass Smith from the list of its members. Subsequently (in April 1873), after the action of the General Medical Council in the case, the solicitor of the College of Surgeons, when again applied to, gave his opinion to the same effect. The Council of the College had a bye-law framed to enable it to attain the object desired; but delays occurred in obtaining any new bye-law, as all such laws required the sanction of a Secretary of State and of some of the judges. The Council of the College, however, earnestly desired to attain the object so much desired.

Saturday, July 18th.

DR. PAGET, President, took the chair at 12 noon.

The Royal College of Surgeons in Ireland and the Conjoint Examination Scheme.—Dr. APJOHN moved, Dr. PARKES seconded, and it was resolved:

"That the President be requested to ask Mr. Macnamara, for the information of the Medical Council, whether the Royal College of Surgeons in Ireland has or has not withdrawn from the scheme of conjoint examination adopted by the King and Queen's College of Physicians (June 28th, 1872), and agreed to by the University of Dublin, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall of Ireland; and sanctioned by the General Medical Council (March 31st, 1873)."

The motion was carried; and the PRESIDENT accordingly put the question to Mr. Macnamara.

Mr. MACNAMARA said that he must first say a few words regarding the constitution of the Royal College of Surgeons of Ireland. The College consisted of Fellows, who on the first Monday in June of each year elected a President, a Vice-President, and nineteen members of Council. All these went out of office at the beginning of the next June, and had to offer themselves for re-election if they desired to be again appointed. In the interval between the periods of election, the whole government of the College was vested in the President, Vice-President, and Council. The Fellows might at any time call a special meeting to discuss the affairs of the College, but had no power in its management. There was a distinction, which was not always understood, between the conjoint scheme itself and the details of the plan for carrying it out. A plan of working the scheme had been prepared by the referees; this plan was not pleasing to some of the Fellows, who discussed, not the scheme, but the working details; and disapproved of them. The Council of the College felt that it could not, without committing a breach of faith towards the Medical Council, withdraw the scheme; and, at a meeting of the Council, 15 voted for, and 2 against proceeding with the scheme. At the election in June, the Fellows might have dismissed from office all the members of Council who had supported the scheme. But, of all the 15 who had done so, 12 offered themselves for re-election; and one only of them failed, for reasons not connected with the conjoint scheme; while one of the two opponents of the scheme was not re-elected. The meeting of Fellows of the College at which this took place was the largest which Mr. Macnamara had ever seen, more than 200 being present.

Dr. APJOHN moved, Dr. PARKES seconded, and it was resolved:

"That the Council thank Mr. Macnamara for his reply to the inquiry of the President, and are glad to find there is a fair prospect that the Royal College of Surgeons in Ireland will eventually give its influential co-operation in carrying out the Irish scheme of conjoint examination, which has been sanctioned by the Medical Council."

Practical Examinations.—Mr. MACNAMARA moved:

"That, in the opinion of this Council, all examinations on anatomy should, so far as practicable, include the performance by each candidate of actual dissections; and, that all those on surgery should include the performance by each candidate of two or more operations on the dead subject."

Dr. LEET seconded the motion.

Dr. ALLEN THOMSON said that the Council had already expressed an opinion that all examinations should be of a practical character. A similar motion might as well be made with regard to chemistry or any other subject. He believed there was a general agreement that the examinations in anatomy and surgery should be practical.

Dr. ANDREW WOOD agreed that the examinations should be practical; but it was not advisable for the Council to go into minute details.

Dr. FLEMING thought that the resolution was unnecessary.

Mr. QUAIN said that there would be some difficulty just now in carrying out the motion.

Mr. MACNAMARA, with the consent of the Council, withdrew the motion.

Report of the Pharmacopœia Committee.—The following report was presented; and, on the motion of Dr. SHARPEY, seconded by Dr. PYLE, was received, and ordered to be entered on the minutes.

"The Pharmacopœia Committee beg to report that the resolutions adopted by the Council at its last meeting, in reference to the publication of a reprint of the *Pharmacopœia*, and of certain additions, in the form of a supplement, have been carried out.

"Five thousand copies of the reprint have been prepared, and with them a corresponding number of the additions have been bound up for sale, without any addition to the price of the work.

"Ten thousand copies of the additions have been bound separately. The price of these copies has been fixed by the Executive Committee at 9d. each.

"The cost of printing the reprint and the additions, together with the amount paid to Dr. Redwood for preparing and seeing both works through the press, amounts to £738 : 18 : 6.

"Nearly 1,000 copies of the reprint, and 6,500 copies of the additions, have been sold since publication, realising the sum of £376 : 13 : 6, and leaving on hand, stock, the value of which is estimated at £891 : 16.

"The Committee beg to recommend that the Pharmacopœia Committee be reappointed, and that it consist of five members.

"They also recommend that the duties of the Committee be to superintend all matters relating to the *Pharmacopœia* [more especially to consider the publication hereafter of a new edition of the work, and of the steps which should be taken for its preparation].

"The Committee beg to state that there are no outstanding liabilities on account of the *Pharmacopœia*.

"A statement of the debtor and creditor account of the reprint and additions of the *Pharmacopœia* is appended.

"W. SHARPEY, Chairman."

Dr. SHARPEY moved, and Dr. BENNETT seconded:

"That the report of the Pharmacopœia Committee be adopted."

An amendment was moved by Mr. TURNER, seconded by Dr. STORRAR, and carried:

"That the report of the Pharmacopœia Committee be adopted, with the exception of the words in paragraph 7, from 'more especially' to the end of the paragraph." [The words are enclosed in brackets in the copy given above.]

The following Committee was then named, viz.: Dr. Quain (Chairman), Dr. Begbie, Dr. Bennett, Dr. Sharpey, and Dr. A. Smith.

Sir DOMINIC CORRIGAN moved, Dr. A. SMITH seconded, and it was agreed:

"That the attention of the Pharmacopœia Committee be requested to the desirability of correcting, in any future edition of the *Pharmacopœia*, the approximate solubilities of salts, and other substances, under the head of 'Characters and Tests', instead of the present indefinite information afforded in the present *Pharmacopœia*."

The Apothecaries' Hall of Ireland and the Conjoint Scheme.—Dr. LEET moved, Mr. QUAIN seconded, and it was agreed:

"That this Council consents to the proposal that the Apothecaries' Hall of Ireland be allowed to appoint three examiners, instead of one, in practical pharmacy, under the scheme for the formation of a conjoint examination in Ireland, bearing date June 28th, 1872."

Preliminary Education.—A list of the examining bodies whose examinations fulfil the conditions of the Medical Council, as regards preliminary education, was presented by the Executive Committee. The committee recommended that the list be the same as last year, with the addition of "The Oxford and Cambridge Schools Examination Board." The recommendation of the Executive Committee was agreed to, provided the subjects examined on shall be such as are required by the General Medical Council.

Dr. HUMPHRY moved, Dr. STORRAR seconded, and it was resolved:

"That in addition to the examinations already recognised by the General Medical Council, the junior local examinations conducted by the English Universities should be recognised for the preliminary education of medical students, provided that Latin and mathematics, and also one of the following optional subjects, viz., Greek, French, German, natural philosophy, including mechanics, hydrostatics, and pneumatics, are among the subjects included in the pass certificate."

The Conjoint Examining Scheme for England.—Dr. RISDON BENNETT moved:

"That the Council do express their satisfaction at learning from the statement of the President, and from the documents laid before them by the representative of the Royal College of Physicians of London, that the arrangements for carrying out the scheme for a Conjoint Examining Board for England are so far advanced as to render it probable that the scheme will be in operation during the present year, and that, with the exception of the Society of Apothecaries, all the English licensing bodies have concurred in the scheme, and have appointed their representatives on the Committee of Reference, by whom the necessary regulations have been framed. The Council are further pleased to learn that the Society of Apothecaries have obtained by a recent Act of Parliament the means they required to enable that body also to join the scheme, and thus to fulfil the desire expressed by the Council in their minutes of March 1, 1872, that the scheme as sanctioned by them should be rendered a complete scheme for a conjoint board for England."

Recommendations of the General Council.—On the proposal of Dr. HUMPHRY, seconded by Dr. ANDREW WOOD, it was resolved that the Executive Committee should be requested to revise the "Recommendations and opinions of the General Medical Council"; to incorporate with them certain resolutions passed in the present session of the Council, and to forward the recommendations and opinions so amended to the several licensing bodies.

Report of the Finance Committee—The following report was presented, and on the proposal of Dr. A. SMITH, seconded by Dr. FLEMING, was ordered to be received and entered on the minutes:

"The Finance Committee beg leave to submit to the Council, in the annexed table, a statement of the income and of the expenditure of the Council during each of the years 1872 and 1873, and of the estimated income and expenditure for the year 1874. It will be seen that the actual income for the year 1873 was less by the sum of £768 16s. than that of the year 1872. This difference is almost entirely due to the exceptionally large amount of fees received for registration by the several Branch Councils in 1872, and not to any special decrease in the income of the year 1873, which was not below the average. It will also be seen that the balance in favour of income in 1872 was £2260 3s. 7d., whilst in 1873 the balance amounted to only £212 17s. 6d. This difference is due to the fact of the Council having sat during only five days in 1872, whilst in 1873 the sittings of the Council extended to nine days; further, it will be observed, that a sum of £598 10s. has been expended in 1873 on account of the visitations of examinations. On this point, the committee think it may interest the Council to know that a further sum of £301 18s. has been paid on account of these visitations, which will be included in next year's account, making the entire cost of the visitation, £900 8s. With respect to estimate for the present year, the income will probably not be less than that of the preceding year, whilst the estimated expenditure has been necessarily increased to meet the charges which will accrue in connection with the occupation of the new premises.

"The committee beg to mention that they have received a letter from the clerks to the Council, Messrs. Bell and Roope, which they have referred to the Executive Committee, who have authority to deal with the subject of the letter, in accordance with the minutes of the General Council, April 3rd, 1873.—RICHARD QUAIN, M.D."

Dr. QUAIN moved, Sir W. GULL seconded, and it was resolved:

"That the report of the Finance Committee, as now read, be adopted."

The Presidency of the Council.—Dr. PAGET said that the time had now come when he must carry out the intention which he expressed on the first day of the session, of retiring from the office of President.

Sir WILLIAM GULL here interposed, and said that it was the unanimous wish of the Council that Dr. Paget should retain the presidency for the full term of five years, if he could do so with convenience to himself. He handed to Dr. Paget, a written paper to this effect, signed by every member of the Council.

Dr. PAGET said that he had been aware that this invitation was to be presented to him, and it had had his respectful, earnest, and careful consideration. If it had not led him to change his intention—and it had not—it had not the less caused him to feel deeply the continued kindness which has been shown to him. He would certainly preserve the paper as one of the most precious of his worldly possessions. It could not but give him pain to break the association with colleagues with whom he had worked so long and so happily; but he hoped that they would not cease to be his friends although the official connection ceased.

Dr. Paget then left the chair which was taken by Dr. Stokes.

Dr. ANDREW WOOD said that Dr. Paget had rendered valuable services to the Council, both as an ordinary member and as President. He had never hesitated to make any sacrifice in order to expedite business. Under his guidance, the Council had enjoyed a period of tranquillity which could not be forgotten; and whatever the utility of the Council to the profession had been, was in great measure due to Dr. Paget. He moved:

"That this Council cannot part with their late President, Dr. Paget, without expressing to him their great obligations for his services as their President, services which have been so ungrudgingly devoted, at large sacrifices to himself, for the good of the Council and the profession, —for the uniform courteousness of his demeanour—for the impartiality of his decisions—for the discretion of his conduct in the chair—which have secured for him the esteem and affection of the members of the Council, and have conduced greatly to the efficiency of the action of the Council in raising the status of the medical profession."

Sir DOMINIC CORRIGAN seconded the motion, which was carried by acclamation.

Sir WILLIAM GULL (having first requested Dr. Acland to retire) moved, and Mr. QUAIN, seconded:

"That Dr. Acland be elected President of the Medical Council."

The motion was agreed to; and Dr. ACLAND took the chair.

The Executive Committee.—Dr. A. SMITH moved, Dr. BEGBIE seconded, and it was resolved:

"That the powers and duties heretofore delegated to the Executive Committee shall be vested in the said committee until the next meeting of the General Medical Council."

Votes of Thanks.—Dr. A. SMITH moved, Dr. BEGBIE seconded, and it was resolved:

"That the cordial thanks of this Council are due, and are hereby tendered to Dr. Andrew Wood for his services as Chairman of the Business Committee during the present session of the Council."

"That the thanks of the Council are due, and are hereby tendered to the Treasurers, Dr. Quain and Dr. Bennett, for their important services."

The session then closed.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 37, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 25TH, 1874.

THE VISITATION OF EXAMINATIONS.

II.

THE visitors appointed to inspect the first and second examinations of candidates for the diploma of the Faculty of Physicians and Surgeons of Glasgow were Dr. Aquilla Smith and Mr. Henry Power.

In reviewing the examination, the visitors "cannot avoid expressing their opinion that there is room for considerable improvement in the mode in which the proficiency of the candidates is tested in the important subjects of anatomy and physiology".

"Turning to the examination before us, the visitors find that, whilst the printed anatomical questions are perfectly fair and well adapted to test the acquirements of the candidates, they only represent, so to speak, one branch of a thorough examination in anatomy; and they feel that the estimate of the examiner would have been more satisfactory had the written examination been supplemented by a good *vivâ voce* examination on the muscles, bones, and ligaments, and by insisting on each candidate dissecting some part or region of the body.

"It is clear that the object of the above-mentioned division of subjects for examination is defeated if it be known that a student may pass, who, when asked so large a question as the distribution of the eighth pair of nerves, upon so important a subject as anatomy, can say all he has to say upon it in eight printed lines, which appears to have been the case.

"In like manner in regard to physiology, they are of opinion that it is impossible for an examiner to obtain from one written paper of three questions (for which only three-quarters of an hour is allowed) and a *vivâ voce* of five minutes, such a knowledge of a candidate's attainments as shall justify him in passing, though it may be quite sufficient to demonstrate the necessity of rejecting the candidate.

"They think that a knowledge of the appearance of the simple tissues under the microscope should be required of every student presenting himself for the first or primary examination.

"The omission of this, as well as the other shortcomings they have felt it their duty to mention, may in part be attributed to the absence of both the appointed examiners in anatomy and physiology who appear to have been grouse shooting.

"The examination in chemistry was well conducted, and was quite sufficient to adequately test the candidate's knowledge on that subject."

On the subject of the second or pass examination, they believe that, "in reviewing this examination, it appears to us that the examination in clinical medicine might be somewhat extended with advantage. A written report of two or more cases by the candidate would assist the examiner in forming his judgment, as it is difficult to avoid putting leading questions to the candidate when the examiner aids, as it were, in the examination of the patient. More specimens should be shown under the microscope, and pathological specimens might be exhibited.

"The examination on clinical surgery was more extended, but we noticed that no instruments were exhibited to the candidate; that there was no practical examination on bandaging, nor on the management of fractures and dislocations; no pathological specimens were shown; and still less was there any attempt made to test the candidate's knowledge of practical surgery by the performance of operations on the dead subject.

"These omissions in an examination, professedly intended to give a surgical qualification, we cannot but regard as requiring careful attention from the Faculty of Physicians and Surgeons of Glasgow; especially, as, in the regulations, it is stated that "recent dissections, anatomical specimens, surgical apparatus, and pathological specimens, are employed at the discretion of the examiners."

The visitors of the medical examinations in the University of Glasgow were Professor Humphry and Dr. A. W. Barclay. In reviewing the examinations, they say:

"Good as these examinations are made by the careful and conscientious conduct of them by the professors, we cannot but feel that the principle of committing the teaching and examination of the students to the same persons in the several departments, so much as is done in this university, is not on the whole a wise one. We believe that the addition of teachers from other schools to the staff of examiners would be a great advantage; and we believe that this opinion is to some extent shared by the Glasgow professors. This, we may observe, could be done without sacrificing the benefits which are felt in Glasgow to result from the conduct of the examination by the teachers of the candidates.

"We would further suggest, 1st, that the examination in physiology should be extended and improved; 2ndly, that dissection should be more frequently introduced as part of the anatomical examinations; 3rdly, that the recognition of specimens of disease should form part of the *vivâ voce* examination in medicine and surgery; 4thly, that two examiners should in all cases be present at the *vivâ voce* and clinical examinations; 5thly, that the number of the written questions in each paper which are required to be answered—in the more important subjects, at any rate—should be increased from one and a half to three or four, and that the time allowed for answering them should be at least two hours."

The visitors for the examination of the Royal College of Surgeons in Ireland were Dr. Aquilla Smith and Mr. Henry Power. Their strictures on the examination are severe, and their report to the Council led to an animated discussion, in the course of which the College was very sharply handled. They say of the junior class examinations:

"In reviewing the conduct of this examination, several points appear to be worthy of comment. In the first place, we have no hesitation in saying that the time occupied in the examination should be considerably extended. A sufficient interval of time should intervene between the written and the oral examination to allow the examiners to read over carefully, and to assign a definite number of marks to the written answers. On the present system this is impracticable, since the oral commences immediately after the written examination is completed, and any time spent by the examiner in reading over the written answers must necessarily be deducted from the time that should be spent on the oral examination—a matter of no small importance, when only fifteen minutes is allowed for the latter.

"It is to be observed that the candidates who present themselves for this examination are students who have completed their third year of attendance upon lectures and dissection. They may, therefore, reasonably be required to give evidence of the possession of a thorough practical knowledge of anatomy, and of something more than mere elementary knowledge of physiology.

"We are of opinion that two written questions on anatomy and one on physiology do not afford a sufficiently searching test of a candidate's knowledge of these important subjects, even when supplemented by an oral examination of thirty minutes by two examiners, and would recommend that a more systematic method of examination should be adopted, several questions being given on each subject, and the candidates being allowed a sufficient time to reply to them.

"In regard to the oral examination, the questions were practical and good, and such as every well educated student should have been able to answer promptly and fully, whilst much kindly consideration was shown to the candidates; but we cannot avoid stating that, in our opinion, the quarter of an hour system of examination at successive tables is not well adapted for adequately testing the acquirements of the candidate, especially if he be astute, timid, or obtuse. The candidate needs only to be slow in answering, and it is impossible for the examiner to go much beyond the surface in the few questions he has time to put, and no opportunity is afforded of ascertaining, by pressing the questions, whether the candidate's knowledge is the result of a cramming system, or whether he really understands what he has read and seen.

"We would further suggest the advisability of introducing, in accordance with the practice of other examining boards, a certain amount of histology into this examination.

"The system of marking in this examination appears to us to require modification. We have already stated that each of the four examiners can give fifteen marks as a maximum for the answers to the combined written and oral questions; whilst an aggregate of twenty marks suffices to pass the candidate. It would hence appear that it is in the power of any one examiner, by giving full marks, to almost insure the passing of a candidate. This we think ought not to be possible. It ought not to be possible, for example, that the examiner on materia medica, by giving fifteen marks for good answers in his subject, should be able to pass a candidate who had only obtained three marks from the examiner on physiology, and two from the two examiners on anatomy.

"We noticed that no conference took place between the examiners in reference to the relative value of the answers given by the candidates in the several subjects, including both the written and oral examination, nor was any special value assigned to the practical anatomy, which by inadvertence, as already stated, we had no opportunity of witnessing. It is easy to conceive that cases might arise where a conference would be of much importance in determining whether a candidate should or should not pass, though his aggregate number might be a little over or under twenty.

"We think it right to call attention to the fact, that although the "junior class candidates" are required by the bye-laws to produce certificates of having attended two courses of lectures on chemistry, one on materia medica, one on botany, and one on forensic medicine, no special questions on chemistry were given during the examination on materia medica; and that, with the exception of two or three trivial questions, there was no examination on either botany or on forensic medicine.

"We requested to be allowed to inspect and copy the papers of the candidate who had passed, but this was declined.

"The refusal to give up for a time to the visitors the written answers of the only candidate who passed on this occasion is not of much consequence, as the aggregate marks of the candidate amounted to only twenty-one, while one who was rejected obtained nineteen marks.

"The examination, if the dissection be fairly carried out, and if the modifications we have suggested be adopted, would, we think, prove an efficient test of the student's knowledge at this period of his career."

As to the examination of the senior class candidates, they report:

"No one of the branches of the examination appeared to us to be fully carried out, and this essentially results from the circumstance that, notwithstanding three days are nominally devoted to it, the whole examination is conducted in too hurried a manner. The students are hurried in writing their replies to the questions in the written examination, and the examiners are hurried in reading them; whilst insufficient time is devoted to the clinical and operative parts of the examination, in neither of which is more than a quarter of an hour devoted to the examination of each candidate."

As in the former case, the Council of the College refused to preserve the papers for the purpose of submitting them to the visitors. This has given rise to much unpleasant comment, and to it as much as to the other points of the report must be attributed the animated character of the discussion which arose in the Council, from which the Irish College has not emerged altogether scatheless. We have still some further reports to notice. We intend to do so at some length, as we believe that the fuller the publicity given to these reports the more salutary will be the result, both for the visitors and for the bodies inspected. The powers of the Council are not very considerable in this matter, and they will be greatly aided by an enlightened public opinion being brought to bear in aid of their useful labours.

THE MEETING OF THE MEDICAL COUNCIL.

In other pages of the Journal of the last two and the present weeks, we have given an account of the proceedings of the recent session of the General Medical Council. We here subjoin a brief summary of the principal events.

On the first day, the President, Dr. Paget, opened the proceedings with an address, which was published at page 33 of the Journal for July 11th. At its close, he retired from the office of President, which he had held for the full term of five years. Having passed a vote of thanks to him for his valuable services, the Council unanimously decided on re-electing him President. On again taking the chair, however, he announced that he could only consent to hold office during the session; and, at the termination of the business on the last day, he carried out his resolution of retiring, although the Council had in the meantime unanimously solicited him to remain in office for the full term of five years. His retirement was received with much regret; and the Council, by an unanimous vote, recorded their grateful appreciation of the able and courteous manner in which he had fulfilled his functions. Dr. Acland, the representative of the University of Oxford, was appointed his successor.

The business which chiefly occupied the Council was the consideration of the Reports of Visitations of Examinations. These had been made, in pursuance of the decision of the Council at its session in 1873, each by two visitors, one being a member of the Council and one being chosen by the Executive Committee from without the Council. The examinations visited were the following: Society of Apothecaries, London, by Dr. Quain (Member of Council), Dr. A. W. Barclay, and Mr. Busk; the Royal Colleges of Physicians and of Surgeons of Edinburgh (primary and second joint examinations) by Dr. Parkes (Member of Council) and Mr. Holmes; the Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh (single examinations) by Dr. Risdon Bennett (Member of Council) and Mr. Busk; the Faculty of Physicians and Surgeons of Glasgow and the Royal College of Physicians of Edinburgh (second conjoint examination) by Dr. Parkes (Member of Council) and Mr. Busk; the Faculty of Physicians and Surgeons of Glasgow (first and second examinations) by Dr. Aquilla Smith (Member of Council) and Mr. Henry Power; the University of Glasgow (first and second professional examinations) by Dr. Quain (Member of Council) and Mr. H. Power; also by Dr. Humphry (Member of Council) and Dr. Barclay; the Royal College of Surgeons in Ireland (examinations for letters testimonial) by Dr. Aquilla Smith (Member of Council) and Mr. H. Power; the Queen's University in Ireland, by Dr. Humphry and Mr. Power; also by Dr. Bennett and Dr. Bristowe. An analysis of these important reports is being given elsewhere in the Journal.

The question that the reports of the visitors should be at once taken into consideration by the Council was opposed, but without effect, by Sir Dominic Corrigan, who urged that the Council ought not to proceed further until the examinations of all the licensing bodies had been visited and reported on. The reports were considered in succession in Committee of the whole Council; and with regard to most of them it was decided to send copies to the bodies specially concerned, for their consideration and remarks. A stronger course was adopted with regard to the Royal College of Surgeons of Ireland, the Council appending to the ordinary resolution another calling special attention to certain defects alluded to in the report. A similar proceeding was proposed with regard to the Queen's University in Ireland, but, after an animated discussion, was not adopted.

Several motions relating to various points referred to in the reports were brought before the Council. The comments of the visitors on the imperfect preparation of many of the candidates led Dr. Humphry to propose that the Council should recommend that the certificates given by teachers should include a statement that the pupils had "satisfactorily attended" the class examinations. This was agreed to, after a debate in which it was shown that the system of class examinations had been already adopted by many teachers, in some schools, indeed, for many years; but that there was no power to compel the students to attend them. A proposal by Dr. Andrew Wood, that the area of examination (not of teaching) should be limited and defined in regard to such subjects as botany, zoology, chemistry, and materia medica, was also agreed to; it being the opinion of most members of the Council that the vast extent of these subjects rendered it unreasonable to expect a student to be master of them and at the same time to possess a competent knowledge of the more important practical departments. The Council also adopted a proposal of Dr. Humphry, recommending that two examiners, or an examiner and an assessor, should be present at every clinical and every oral examination; and also a motion brought forward by the same gentleman, that an examination on any subject ought not to be conducted wholly or in great part by the teacher of the candidate in that subject. A motion proposed by Dr. Storrar, in favour of "objective" examinations, and of the appointment of "experts" as examiners, was negatived; and the same fate befel a proposal of Dr. Apjohn to lay down rules for the conduct of examinations in chemistry. The principal reason for not approving these proposals, was the reluctance of the Council to lay down minute details of rules for the guidance of examining boards and schools.

The Council decided to continue the visitation of examinations.

Communications of a very satisfactory nature relating to the conjoint examination scheme for England were made to the Council. Dr. Storrar read a letter from the Home Secretary, approving of the resolution of the Senate of the University of London not to admit candidates to the second M.B. examination before passing the final examination of the conjoint Board. The passing of the Apothecaries' Act Amendment Bill was also reported; and correspondence relating to the subject was produced by Mr. Bradford, the representative of the Apothecaries' Society. A resolution expressing the satisfaction of the Council at the progress that had been made was passed. It appears, however, that there are still some legal difficulties in the way of carrying out the scheme; but it is confidently expected that they will be readily removed.

A question put by the President, by request of Dr. Apjohn, led to an explanation by Mr. Macnamara, the representative of the Royal College of Surgeons of Ireland, of the attitude of that body with regard to the Irish conjoint scheme. He explained that the Council, with whom rests the management of the affairs of the College, had steadily adhered to the conjoint scheme; and that the majority of the Fellows had shown their approbation of their conduct by re-electing the majority of them to office. The prospect of forming a conjoint board in Ireland with the co-operation of all the licensing boards in that division of the kingdom, except the Queen's University, was considered hopeful.

A proposal of Sir Dominic Corrigan, that the Medical Council should approve a Bill for instituting a special examination for all medical men seeking appointments in the civil public service, was rejected; the mover and seconder alone voting in its favour.

On the suggestion of Dr. Acland, the Council, on the first day of meeting, appointed a Committee to examine the report of the Parliamentary Committee on the Adulteration Act; and subsequently adopted a series of resolutions regarding the qualifications of public analysts, which were presented by a deputation of the Council to the President of the Local Government Board.

In reply to a question of Dr. Andrew Wood, whether Matthew Bass Smith, whose name had been removed from the *Register* by order of the Medical Council, was still on the roll of members of the Royal College of Surgeons of England, Mr. Quain, the representative of that body, explained that the College at present had no power to remove his name, but that a bye-law was being framed for the purpose of enabling the College to deal with similar cases.

The returns, two in number, from the Army Medical Department, showed that, out of thirty-three candidates, one only had been rejected.

The reports of the Pharmacopœia Committee and of the Finance Committee were presented and approved.

The session lasted nine days; but, beyond the discussion on the report of visitations of examinations, it cannot be said that much of importance was done.

VACCINATION PROSECUTIONS.

A PRACTICAL commentary upon our observations on this subject last week is furnished in the proceedings in the House of Commons on the 16th instant; from which it appears that the Banbury Board of Guardians, in November last, availing themselves of the present doubtful interpretation of a certain clause in the Vaccination Act, had actually passed a resolution "That this Board do not, in future, direct prosecutions against those persons who object to be vaccinated." Not only so, but, although the Local Government Board immediately pointed out to the guardians that the resolution could have no legal force or effect, because it was in defiance of the provisions of the law, and notwithstanding also that in the spring of this year a serious outbreak of small-pox occurred in the Banbury district, whereupon the Local Government Board called the attention of the guardians to the serious responsibility which they would incur by continuing to neglect puttng in force the law upon the subject and providing facilities for vaccination and revaccination, the guardians still refused to rescind their resolution.

The difficulty in further proceedings on the part of the Local Government Board presented itself in this way. The law officers of the Board advised that, while under the present Act the vaccination officers were bound to carry out the requirements of the law, even in the face of such a resolution of their guardians, to enforce this would place the vaccination officers in direct antagonism with their employers, and in a position which would be manifestly unsatisfactory to all parties. Fortunately, a remedy is about to be provided for the present or for any future difficulty which might arise under similar circumstances.

Mr. Sclater-Booth, in answer to a question of Lord R. Churchill, stated in the House on the evening in question, that a short Bill had been prepared and submitted to the other House of Parliament which would set all doubts aside for the future; adding that "he had no doubt that when the Bill came down to that House, it would be speedily passed into law, and the difficulty thus be got over".

It is satisfactory to find that this obstacle to the proper administration of the Vaccination Act has arisen from an oversight of those who drew the original Bill, and not from a want of appreciation of the great benefits of vaccination, or from any unwillingness to secure its thorough extension on the part of our legislators.

LOUISE LATEAU AND THE DISEASE OF THE MYSTICS.

DR. CHARBONNEAU has lately brought under the notice of the Académie de Médecine in Paris the disease under which Louise Lateau, the famous ecstatic, is now labouring. In a general review of the so-called mystics, he demonstrates that two natural conditions are indispensable to reach the mystic stage: the one, to profess a religion of which incarnation is one of the fundamental principles, so as to allow man to represent his divinity according to the form which accords with his desires and the climate he inhabits; secondly, to submit himself to a debilitating regimen, which, while diminishing the activity of his physical functions, suppresses the superior faculties of the soul, to the advantage of the imagination—the *folie du logis*. Amongst the Hindoos, as amongst the Christians, the ecstatic undergoes a long preparation, consisting, for the corporeal part, in proceedings likely to annihilate all the functions; and for the soul, in such as suppress the functions of relation and the exercise of the will, and in the concentration of all the strength in order to fix the attention on a single object. He says that ecstasy has never been produced at once and in a healthy subject. The history of all mystics bears witness to this; and Louise Lateau has appeared, once again to confirm this law—a law which takes the occurrences which have lately taken place at Bois d'Hama from the category of the marvellous.

Louise Lateau, who began to show signs of the ecstatic state when about eighteen years old, was accustomed from her earliest infancy to the more than frugal regimen of the Hindoos—to the enforced fasts of poverty, to privations of all kinds, watchings, fatigue, and, in fact, everything which could impede the functions of nutrition. On several occasions, she has manifested true suspensions of functional action, characterised by the absence of urinal discharges, constipation, sleeplessness, spasms of the epigastrium, and complete want of appetite—a group of symptoms which are often found assembled in Esquirol's observations respecting maniacs. This stoppage of the functions, this living mummification of the organs and tissues, sometimes lasts a month in Louise Lateau. Dr. Charbonnier believes this condition to be the same which is often met with in insane persons, who refuse to take nourishment with the greatest obstinacy.

When Louise Lateau had arrived at a certain stage of debility, she suffered from neuralgic attacks, the inseparable companions of an impoverishment of the blood in common with sleeplessness. *Sanguis moderator nervorum, sanguis somniferus.* These nervous phenomena have followed a sequence parallel to the aggravation of the general condition: painful neuralgias of the face, headaches, transient troubles of the intellect, slight attacks of delirium. After enforced feeding, which is prolonged more than a month, and hæmorrhages, first by the mouth, then by the womb, and afterwards from the feet, hallucinations attended with delirium came on, which lasted several days. Some weeks afterwards an ecstacy came on. Such was the progress of the phenomena.

Dr. Charbonnier, in an exhaustive memoir on the mystics which he has lately presented to the Academy, makes an abstract of the chapter in it relating to the ecstatic state, showing the modifications of the organs of those afflicted by this disease—modifications which may explain how life is sustained, notwithstanding such prolonged abstinences, and which he terms the "substitution of organs"—a law which, according to him, is intercalated between the law of Malthus and that of Darwin.

MR. W. G. HOWGRAVE has issued a full report on the *crèches* of London, with special reports on twenty-three nurseries, and a tabular statement showing the system pursued by each.

THE Eye Infirmary in Queen's Road, Brighton, is found to be insufficient to provide all the accommodation required, and an appeal is being made for funds wherewith to enlarge it.

THE Royal Naval and Marine Hospital at Chatham was officially inspected last Saturday by Sir Alexander Armstrong, K.C.B., Director-General Navy Medical Department, who subsequently visited the dockyard also.

AN International Pharmaceutical Congress will be opened at St. Petersburg on the 13th of next month. One of the principal questions for discussion will be the formation of an International and Universal Pharmacopœia.

A YOUNG lady, Miss Charlotte Yhlen, who highly distinguished herself at the University of Upsala last September, has come to England to study the hospital system in London and Edinburgh, before going to New York, where she has been invited to practise as a physician.

MR. WILLIAM BROOKE, of Northgate Mount, Honley, has offered a donation of £1,000 to the Huddersfield Infirmary, to be invested in such a manner as to enable the Board to send patients from that institution to hospitals at Buxton, Southport, and other places, Mr. Brooke expressing a preference for the patients to be sent to Buxton. The offer has been gratefully accepted.

MR. RICHARD APJOHN, the Public Analyst for the county of Huntingdon, reported to the last Court of Quarter Session in the following terms: "Being at this time required by Act of Parliament to furnish a quarterly report, I beg leave to state that, since my appointment as Public Analyst to the county of Huntingdon, I have had no article of any description submitted to me for analysis; and, I may add, I have enjoyed a like experience in the three other jurisdictions in which I hold appointments. Whilst, therefore, the public show their present reluctance to avail themselves of the services of the public analyst, it is impossible for me to report on the absence or presence of adulteration in the district."

WHAT IS ADULTERATION OF MILK?

AT Marlborough Street, on July 16th, a milk-dealer was summoned before Mr. Knox, for selling milk adulterated with water. The inspector purchased milk at the defendant's place. When told that it would be analysed, the defendant took some of the same milk, put it into a bottle, and asked him to seal it, so that Dr. Lankester might examine it. The certificate of Dr. Redwood, the analyst, was put in to show that the milk had been adulterated to the extent of nineteen per cent. Dr. Edwin Lankester said he had analysed the sample of milk. He could not say it was adulterated, and it might have been perfectly genuine milk. He did not agree with all that was stated as to adulteration by his brother analyst. Dr. Redwood, Professor of Chemistry to the Pharmaceutical Society, said he had analysed the sample of milk left with him and found it had been adulterated with water to the extent of nineteen per cent. He never knew in genuine milk such a low specific gravity. He was perfectly aware that the quality of milk varied according to the breed of the cow and other circumstances. He had no doubt the milk had been adulterated with water to the extent of one pint of water to four pints of milk. Mr. Knox fined the defendant 10s. and costs. It is to be regretted that two such well known analysts should vary so much in their respective reports. Apart from the natural wish of each to make the best of their client's case, the variation between pure milk and nineteen per cent. of water is very large, and such discrepancies tend to weaken public faith in the reliability of analysis.

CIVIL LIST PENSIONS.

IN awarding the Civil List pensions during the past year, we are glad to see that the claims of our profession have been fairly recognised as will be seen by the following awards. To Professor Thomas Rymer Jones, F.R.S., in consideration of his services to science as late Professor of Natural History and Comparative Anatomy at King's College, £50. To Mrs. Georgina Gordon Coote, widow of Mr. Holmes Coote, in consideration of her husband's medical services, especially during the Crimean war, and of her own labours as lady-superintendent of the Smyrna Hospital, £50. To Dr. Sharpey, F.R.S., late Professor of Anatomy and Physiology in University College, in consideration of his great services to science, £150. To the two sons and two daughters of Dr. Livingstone, in recognition of the value of their father's geographical discoveries in Central Africa, £50 each.

MEDICAL CERTIFICATES.

AN inquest was recently held by Dr. Lankester on the body of a child aged three months, which had been exhumed for that purpose. Dr. Skelding, who made the *post mortem* examination, deposed to the child having died from natural causes, and a verdict to that effect was recorded. The remarkable part of the case is this. The child was the daughter of a Mr. Bedell, described as a ship-owner of Euston Square, and was attended during its illness by a Mrs. Mills. On the death of the infant, the father applied to his medical attendant for a certificate, which was refused to him; being, however, a man of resources, he wrote one out for himself, signing it Geo. Bedell, M.D. At the inquest, he stated that "he received his diploma in America, and registered in Canada, but did not practise now". The jury expressed an opinion that the matter had very properly been brought before a judicial tribunal.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

THE twelfth annual meeting of this Society was held on July 7th, and closed the business of a successful year. The laws of the Society have undergone reconstruction, so as to admit of greater expansion. The annual meeting has been shifted to July, and the opening meeting of the Society to October. The office-bearers elected for the years 1874-5 are as follows:—*President:* Mr. P. E. Miall. *Treasurer:* Mr. J. Mossop. *Secretary:* Dr. Goyder. *Members of Committee:* Messrs. W. Whalley, John D. Lawrie, S. C. Hirst, and Dr. Bell. *Pathologists:* Drs. Lee and Rabagliati.

THE TRAINING SCHOOL AND HOME FOR NURSES IN CONNECTION WITH WESTMINSTER HOSPITAL.

MISS MERRYWEATHER, who for eleven years has been Lady Superintendent of a Training Home for forty nurses in connection with the Infirmary at Liverpool, has consented to take charge of the Home which is to form part of this institution. She will also direct the nursing service of the hospital, which of itself affords permanent employment for a staff of nurses to the extent of one hundred and ninety beds, besides being a school for the training of probationers. The Home will be started in a house rented for one year (with power to continue for two more) in the immediate neighbourhood of the hospital. The accommodation being, however, very limited, and the arrangements in many ways ill-suited to the special purpose, the Committee appeal to the public for aid to enable them to secure other premises, or a site for building, as occasion may offer. The primary object of the institution is to supply a body of well-trained nurses to Westminster Hospital; but, as the numbers of nurses and means of accommodation increase, other institutions and private families can be provided; so that it is hoped that, when in full work, the Home will be to a great extent self-supporting.

DEATH FROM HYDROPHOBIA.

LAST week, Mr. Fullagar, coroner for East Sussex, held an inquest at Portslade on the body of John Rapley, 26, a butcher, who died from the effects of the bite of a dog. The animal, it appears, had bitten several persons in the course of a few days; but it was not thought by the owner to be mad. Dr. Fuller of Shoreham stated that he dressed the thumb of the deceased on the 1st of April. On the following day, he explained to witness how the accident occurred. The dog flew at his throat; but he caught him with both hands round the neck, and got his body between his legs. Two men were passing, and he asked them to get a knife out of his pocket to stick the dog, as it was mad. The deceased then tried to get the knife out himself with one hand, and the dog got the upper hand and bit him. The fleshy part of the upper portion of the thumb was bitten away, one tooth having passed through the nail at the quick. Witness said he attended the deceased daily nearly six weeks, and had frequently seen him since. On Monday week, he again attended him professionally, up to which time he had considered him recovered. The deceased then complained of numbness and pain from the bite extending up the hand, with great depression of spirits and irritability. The symptoms increased daily till Tuesday afternoon, when he died. Witness had no hesitation in saying that death resulted from hydrophobia arising from the bite of a dog. Two other medical men were called in on Sunday and Monday, and were of the same opinion. The deceased previously enjoyed good health.

MEMORIAL BUST OF THE LATE DR. JOHN MURRAY.

ON Tuesday last, the bust recently executed by Joseph Durham, Esq., A.R.A., of the late Dr. John Murray, was presented to the Weekly Board of the Middlesex Hospital. The artist has caught the intelligent genial expression by which many of the friends of the deceased will best remember him. On the lower portion of the bust is engraved, "John Murray, M.D. Born November xxviii, 1843. Died October xv, 1873." On the marble bracket which supports the bust, the following appropriate inscription is placed: "This bust testifies the high regard and warm affection of many professional and private friends for one whose life, alas! too brief, had put forth buds of ample promise, and had already borne much early fruit." A site has been chosen for its erection in the museum; the Board thinking that, with a view to encourage emulation among the students and junior officers of the hospital, it was desirable to place the memorial in some place more generally accessible to students than the board-room. Any subscribers or friends who may wish to see the bust can do so at any time by applying at the hospital.

SURGEONS AND ASSISTANTS.

THE Master of the Rolls gave a decision last week, which is of considerable importance to medical practitioners and their assistants. The bill in this case—Gravely v. Barnard—was filed by a surgeon, and asked for an injunction of the Court of Chancery restraining the defendant, who was the paid assistant of the plaintiff, from practising as a surgeon and general practitioner within certain limits. The instrument, on which the plaintiff relied, was a bond into which the defendant had entered with him, not to interfere with the plaintiff's practice or take away his patients. The defence was that the bond was worthless to bind the defendant, there being no valuable consideration expressed on the face of it. The Master of the Rolls, however, held that it was not for him to decide whether the consideration was, or was not, sufficient, so long as there appeared to be some consideration on the face of the instrument, or so long as one might be fairly inferred from the surrounding circumstances. Here the bond recited that the plaintiff and defendant had agreed to enter into the relation of employer and assistant "for so long a time as should be agreed on between them". The meaning of that was, of course, that either party could terminate the connection at a moment's notice; and the plaintiff, finding that his assistant, who had hitherto been unqualified to practise, was about to pass an examination which would confer that qualification upon him, offered to continue him in his employment on the same terms as before, on condition that he would bind himself not to practise within certain limits. That was a valuable consideration in the eye of the law, and, if the parties thought it a sufficient one, it was not for the court to interfere, although there really was nothing to prevent the plaintiff from discharging his assistant the minute after he had signed the bond. He (Sir G. Jessel) could not help himself, therefore, and must grant the injunction prayed for, although if he allowed his feelings to override the law, he should certainly have refused it. Having read the affidavits on both sides, he must say that he greatly commiserated the defendant. It was arranged that the operation of the injunction should be suspended for a fortnight to allow of a settlement.

DEATHS FROM DIARRHŒA.

IN the eighteen largest English towns, 429 deaths from diarrhœa were recorded last week, against 226 and 196 in the corresponding weeks of 1872 and 1873. In London, during the week the annual death-rate was 24 per 1,000 inhabitants; and the 1,534 deaths which were registered included 238 deaths from diarrhœa. The deaths due to each of the zymotic diseases, excepting diarrhœa, were below the average. The 238 fatal cases of diarrhœa included 208 of infants under one year of age. To simple cholera and choleraic diarrhœa, the deaths of 8 infants and of one adult were referred. The mean temperature of the air was 3.4 deg. above the average; a considerable excess of temperature prevailed on each of the first four days of the week, whereas the mean differed but slightly from the average on the last three. No rain fell in London; about three quarters of an inch was, however, measured both in Liverpool and Manchester.

THE SHAFTESBURY PARK ESTATE.

THIS estate, a further part of which was formally opened by Lord Shaftesbury on Saturday last, consists of forty acres, standing about midway between Clapham Junction and the Wandsworth road station of the Chatham and Dover line. In August 1872, the Earl of Shaftesbury laid the foundation-stone. In November 1873, Lord Shaftesbury "opened" the new town which, even by that time, had arisen; and on Saturday he presided at another formal opening of another part of the estate. Last November about 350 houses had been finished. There are now 479 completed houses, and before winter sets in it is expected that 270 more will be fit for habitation—altogether 749 houses. When the whole plan of building has been carried out the park will contain 1,200 houses, of four distinct classes. Class 1 contains eight rooms—a front parlour with bay windows, a back room for meals, a kitchen with dresser and kitchener, a small larder, a scullery, fitted with copper and sink; a closet, ash-pit, and coal cellar, while on the first floor there are three bed-rooms and a little bath-room. Class 2 are seven-roomed houses, without the bath-room. Class 3 have six, and Class 4 five rooms, of which two are bed-rooms. Gas and water are laid to every house. Ventilators are supplied to each room; and the drainage (except surface water), is carried back from the closet and sink in the rear, so that no drain passes under any house. The foundations are of concrete; the roofs are of slate. The paths are laid with asphalte, space being reserved for rows of young trees, which have already taken kindly to the soil. Well-made roads run for the most part at right angles, and vary in width from thirty to forty feet. Thus Shaftesbury Park already contains bright and cheerful dwellings, arranged with the utmost attention to health and comfort, and no little regard to the picturesque. Window-gardening is general, and will certainly become more so, for the directors give prizes for the best show of plants and flowers in the windows and forecourts. There are small back gardens already, which have in some instances been prettily cultivated. There also a temporary lecture-hall, which will hold 700 or 800 people, and at present is used for a temporary school. Board schools will soon be built. A site is left for a co-operative store. Two acres and a half are reserved for a park and recreation ground; and Clapham Common and Battersea Park are not far off. Baths and washhouses are also projected. Not one public-house or beer-shop will be allowed on the estate, though the people are not teetotallers, but obtain their supplies of beer in their houses at their own discretion.

ST. BARTHOLOMEW'S HOSPITAL.

At a meeting of the Governors of this institution on Wednesday, at which his Royal Highness the Prince of Wales presided, Alderman Sir Sydney Waterlow, M.P., was unanimously elected Treasurer of the Hospital, on the motion of Mr. Francis Bennoch, seconded by Sir Charles Reed. The Prince had, on assuming the chair, explained in effect that the election of a treasurer had become necessary in consideration of the declining health of Mr. Foster White. His Royal Highness, at the same time, bore emphatic testimony, amid tokens of approval of the whole meeting, to the uniform devotion and ability with which the retiring treasurer, Mr. White, during the long period of twenty years, had applied himself to the duties of his office, and had striven to advance the interests and the usefulness of the hospital. The Prince also expressed the general sympathy of the meeting, as well as his own, with Mr. White and the members of his family, on his declining health. The motion appointing Sir Sydney Waterlow treasurer was commended to the meeting by the mover and seconder on the grounds of his well-known reputation as a useful and upright public man, of his uniform courtesy and consideration, and especially of the interest he had evinced in St. Bartholomew's by devoting of his own free will a few years ago a large and commodious building at Highgate as a convalescent home in connection with the parent hospital. The meeting afterwards passed an unanimous and enthusiastic vote of thanks to his Royal Highness the President for honouring it with his company and countenance on the occasion. It was stated, in the course of the meeting, that Mr. Foster White, the retiring treasurer, would still have the privilege, as heretofore, of occupying the official residence attached to the office, situated within the precincts of the institution.

SCOTLAND.

The Town Council of Aberdeen recently invited applications for the appointment of public analyst, at fees of from 2s. 6d. to 10s. 6d. per analysis; but, as there were only three candidates, it was determined to offer, in addition, £25 for fitting up a laboratory, with the view of inducing others to come forward.

STATE MEDICINE AND HYGIENE.

We understand that, in connection with the decision of the Edinburgh University Court to grant diplomas in Public Health, the Extra-Academical Medical School of Edinburgh has decided to institute a Lectureship "On State Medicine and Hygiene". We are glad to learn that Dr. Andrew Smart, F.R.C.P., of Edinburgh, author of the well known reports on "Cattle Plague", has been admitted Lecturer on this important subject. From what we know of Dr. Smart's antecedents, we have every reason to believe that the new Lectureship will prove a success in that gentleman's hands.

PORTRAIT OF SIR WILLIAM FERGUSSON.

A replica of the portrait of Sir William Fergusson has been presented by a deputation of the subscribers to the Royal College of Surgeons, Edinburgh. The deputation were received by Dr. Simson, President of the College. There was a large attendance. Professor Maclagan, Edinburgh, as representing the subscribers, presented the portrait, and the gift was acknowledged by the President. The picture will be placed in the portrait gallery of the College.

IRELAND.

The weather this summer in Dublin has been extraordinarily oppressive; and, as a result of the great heat, a young girl six years of age, resident in New Street, died last week from exposure to the sun.

Last week, at Lurgan, several parties were made seriously ill from the effects of eating some veal which was in an unwholesome condition. Two children have already died, and one woman is dangerously ill, and not expected to recover.

Drs. Meehan and Sheedy of Limerick were last week found guilty of having entered into a conspiracy to defraud the New York Insurance Company, by giving false certificates, etc.; and were sentenced by Judge Lawson to twelve months' imprisonment each. It is to be regretted much that members of the profession should have taken such an active part in proceedings so discreditable.

THE LIFFEY NUISANCE AND THE DUBLIN CORPORATION.

Without further remark, we chronicle the fact that the Dublin Corporation has had another stormy meeting over the Liffey question, and taken no further action.

SCARLET FEVER AND SMALL-POX.

Scarlet fever has lately been prevalent in Dublin; in the week ending Saturday, July 11th, of a hundred and fifty-four deaths registered, no less than twenty-one were due to that disease. Small-pox is rife at Belfast; where ten deaths from that cause were registered during the above-mentioned week.

THE QUARTERLY SUMMARY OF BIRTHS AND DEATHS IN DUBLIN.

During the quarter ending on Saturday, the 4th instant, 2,365 births were registered in Dublin; being equal to an annual ratio of 30 in every 1,000 of the population. The deaths registered within the same period were 2,043; affording an annual rate of 26 in every 1,000 inhabitants. The quarterly death-rate in Belfast was 27; in Cork, 25; in Limerick, 23; in Londonderry, 23; in Waterford, 24; in Galway, 21; and in Sligo, 14. In Dublin, zymotic diseases caused 20.4 per cent. of the total deaths registered; and scarlet fever proved fatal in 176 instances, or 1 in every 11.6 of the total deaths registered. In the corresponding quarter of last year there were only 23 deaths referred to this disease; 497 persons have fallen victims to this pestilence during the last nine months. There were no deaths from small-pox registered in Dublin during the quarter; but in Belfast there were 37 deaths from this disease; in Londonderry, 30; and in Waterford, 2. The deaths from phthisis, in Dublin, amounted to 225, 1 in every 9.1 of all the deaths. The mean of the mean weekly temperature for the quarter, as returned from the Ordnance Survey Office, Phœnix Park, was 52.7 degs.; at Greenwich it was 53.5 degs. The rainfall at Dublin, during the thirteen weeks, measured 3.890 inches, and at Greenwich 3.61 inches.

SIR DOMINIC CORRIGAN'S PROPOSED MEDICAL ACT AMENDMENT BILL.

The draft of the Bill to amend the Medical Acts brought under the notice of the General Medical Council by Sir Dominic Corrigan had been previously submitted to the King and Queen's College of Physicians and rejected by that body. It is necessary to make this statement with regard to Sir Dominic's Bill, as otherwise it might be thought that the Irish College of Physicians had approved of the proposed measure, which, for some unaccountable reason, was supported by the College representative, Dr. Aquilla Smith, who, in this instance, did not advocate the views of the majority of his constituents. Was Sir Dominic's Bill submitted to the Senate of the Queen's University? It is worthy of note that this new proposal comes from the representative of the body which alone, of the Irish medical authorities, refuses to take any part in the formation of a conjoint examining scheme, and that without assigning any reason.

PROPOSED MEMORANDUM AND ARTICLES OF ASSOCIATION (SUBJECT TO THE APPROVAL OF THE BOARD OF TRADE);

AND BYE-LAWS TO BE ENACTED IN PURSUANCE OF SUCH ARTICLES OF ASSOCIATION AS RECOMMENDED BY THE COMBINED COMMITTEES, UNDER THE ADVICE OF THE SOLICITOR, MR. J. R. UPTON, PRINTED PURSUANT TO A RESOLUTION OF THE COMMITTEE OF COUNCIL OF THE 2ND JULY INSTANT (PUBLISHED IN THE "BRITISH MEDICAL JOURNAL" OF THE 11TH INSTANT.

MEMORANDUM OF ASSOCIATION OF THE BRITISH MEDICAL ASSOCIATION.

I. The name of the Association is the "British Medical Association".

II. The Registered Office of the Association is to be in England.

III. The objects for which the Association is established are—The promotion of medical and the allied sciences, and the maintenance of the honour, and the interests of the medical profession by the aid of all or any of the following, viz.:—

(*a*) Periodical meetings of the members of the Association, and of the medical profession generally in different parts of the country.

(*b*) By the publication of such information as may be thought desirable, in the form of a periodical journal, which shall be the journal of the Association.

(*c*) By the occasional publication of transactions or other papers.

(*d*) By the grant of sums of money out of the funds of the Association for the promotion of the medical and the allied sciences, in such manner as may from time to time be determined on.

(*e*) And such other lawful things as are incidental or conducive to the attainment of the above objects.

IV. The income and property of the Association, from whatever source derived, shall be applied solely towards the promotion of the objects of the Association, as set forth in this memorandum of Association, and no portion thereof shall be paid or transferred, directly or indirectly, by way of dividend or bonus, or otherwise by way of profit, to the persons who at any time are, or have been members of the Association, or to any person claiming through any of them, provided that nothing herein shall prevent the payment in good faith of remuneration to any officers or servants of the Association, or to any member of the Association, or other person, in return for any services actually rendered to the Association.

V. The fourth paragraph of this memorandum is a condition on which the licence is granted by the Board of Trade to the Association, in pursuance of Section 23 of the Company's Act, 1867. For the purpose of preventing any evasion of the terms of the said fourth paragraph, the Board of Trade may from time to time, on the application of any member of the Association, impose further conditions which shall be duly observed by the Association.

VI. If the Association act in contravention of the fourth paragraph of this memorandum, or of any such further conditions, the liability of every director, hereinafter called Member of Committee of Council, shall be unlimited, and the liability of every member who has received any such dividend, bonus, or other profit aforesaid, shall likewise be unlimited.

VII. Every member of the Association undertakes to contribute to the assets of the Association, in the event of the same being wound up during the time that he is a member, or within one year afterwards, for payment of the debts and liabilities of the Association, contracted before the time at which he ceases to be a member, and the costs, charges, and expenses of winding up the same, and for the adjustments of the rights of the contributors amongst themselves, such amount as may be required not exceeding the sum of *One Guinea;* or in case of his liability becoming unlimited such other amount as may be required in pursuance of the last preceding paragraph of this memorandum.

We, the several persons whose names and addresses are subscribed to this memorandum, are desirous of being formed into an Association in pursuance of this Memorandum of Association.

Dated this day of , 1874.

ARTICLES OF ASSOCIATION.

1. For the purposes of registration, the number of the members of the Association is declared not to exceed 100.

2. The Committee of Council of the Association, hereinafter mentioned, may, whenever the objects of the Association require it, register an increase of members.

3. The Association is established for the purposes expressed in the Memorandum of Association.

Qualification, etc., of Members.

4. Every person who, at the date of the registration of the Association, is an ordinary member of the unincorporated body called by the same name, within the meaning of their laws, dated August, 1873, and has paid all subscriptions due from him, in accordance with such laws, shall be entitled to become a Member of the Association (hereinafter called a member) upon signing an agreement in that behalf.

5. The terms and conditions upon which every person, not entitled to become a member under Article 4, is to become a member, and also under what circumstances any member may be expelled from the Association, so as to cease to be a member thereof, shall be prescribed from time to time by the Association in General Meeting.

6. Every member shall pay a subscription to the Association of One Guinea per annum, which shall entitle him to receive the publications of the Association for the current year, the subscription shall date and be considered due in advance on the 1st of January in each year, commencing on the 1st of January, 1875, except in the case of a member admitted on or after the 1st of July in any year when the subscription for such part of the year shall be half a guinea in advance.

7. Any member, whose subscription shall not have been paid on or before the 31st December of the current year, shall, without prejudice to his liability to the Association, be suspended from all privileges of membership until he shall have paid the same and all subsequent subscriptions (if any) up to the time of payment. No member shall (except in case of his death or expulsion) cease to be a member without having given six calendar months previous notice, in writing, of his intention in that behalf to the Secretary, hereinafter mentioned, and paid all arrears of subscriptions (if any) due from him.

8. Honorary members, without any of the liabilities of members, may be elected from time to time by the Association in General Meeting, on the recommendation of the Council hereinafter mentioned. The following classes of persons shall be eligible as honorary members: (*a*) Members of the medical profession of scientific eminence residing in the United Kingdom, in the Colonies, or in foreign countries. (*b*) Gentlemen residing in the United Kingdom, in the Colonies, or in foreign countries, not belonging to the medical profession, but distinguished in sanitary or physical science. (*c*) Gentlemen who may have rendered distinguished service to the Association. No honorary member shall be entitled to any vote or any further privilege than that of attending the annual general meetings and of receiving copies, not exceeding twenty-five in number, of any memoir or communication of his own, printed by the Association. Every honorary member shall cease to be such member upon a resolution to that effect passed in general meeting.

Publications.

9. A journal, under the title of the "BRITISH MEDICAL JOURNAL", shall be published weekly in London by the Association, and shall be conducted by a paid Editor, who shall be responsible for all that appears in its pages, except such matters as may be printed by direction of the Committee of Council. The JOURNAL shall contain papers on medical science, and shall be considered the medium of communication between the members of the Association. In it shall be inserted all notices of places and times of meetings of the Association and any other Association business which the Committee of Council require to be inserted therein. Transactions shall be published occasionally, if the funds of the Association permit. Once in every year a list of the members and honorary members, and their addresses, shall be published in the JOURNAL.

General Meetings.

10. The first General Meeting shall be held at on the day of , 187 .

11. Subsequent general meetings shall be held once in every year, commencing with the year 1875, at such time and place as may be prescribed by the Association in general meeting, and if no time or place is so prescribed, a general meeting shall be held on the day of August, in every year, commencing as aforesaid, at such place as may be determined by the Committee in Council.

12. The above-mentioned first general meeting and subsequent annual general meetings shall be called ordinary meetings, and all other general meetings shall be called extraordinary.

13. The Committee of Council may, whenever they think fit, and they shall, upon a requisition made in writing, by any fifty or more members, convene an extraordinary general meeting.

14. Any requisition made by the members shall express the object of the meeting proposed to be called, and shall be left at the registered office of the Association.

15. Upon the receipt of such requisition the Committee of Council

shall forthwith proceed to convene a general meeting, and if they do not so within twenty-one days from the date of the requisition, any fifty members may themselves convene a meeting.

Proceedings at General Meeting.

16. Seven days' notice, at the least, specifying the place, the day, and the hour of meeting, and in case of special business the general nature of such business shall be given to the members in manner hereinafter mentioned, or in such other manner (if any) as may be prescribed by the Committee of Council, but the non-receipt of such notice by any member shall not invalidate the proceedings at any general meeting.

17. All business that is transacted at an extraordinary meeting, and also all business that is transacted at an ordinary meeting, with the exception of scientific and professional discussions and addresses, and the consideration of the accounts, balance sheets, and the ordinary reports of the Council and Committee of Council, and the other routine business of the Association, shall be deemed special.

18. No business shall be transacted at any meeting unless a quorum of members is present at the commencement of such business, and such quorum shall not be less than twenty-five.

19. If within one hour from the time appointed for the meeting a quorum of members is not present, the meeting, if convened upon the requisition of the members, shall be dissolved. In any other case it shall stand adjourned to the same day in the following month at the same time and place; and if at such adjourned meeting a quorum of members is not present, it shall be adjourned *sine die*.

20. The President of the Association (to be appointed as hereinafter mentioned), or, in his absence, the President of the Council (to be appointed as hereinafter mentioned) shall preside as chairman at every general meeting of the Association.

21. If at any meeting the President, or President of the Council, is not present within fifteen minutes after the time appointed for holding the same, the members present shall choose some one of their number to preside as chairman.

22. The chairman may, with the consent of the meeting, adjourn any business from time to time, and from place to place; but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

23. At a general meeting, unless a poll is demanded by at least twelve members, a declaration by the chairman that a resolution has been carried, and an entry to that effect in the book of proceedings of the Association, shall be sufficient evidence of the fact, without proof of the number or proportion of the votes recorded in favour of or against any such resolution.

24. If a poll be demanded in manner aforesaid, the same shall be taken in such manner as the chairman directs, and the result of such poll shall be deemed to be the resolution of the Association in general meeting. In case of an equality of votes at any general meeting, the chairman shall be entitled to a second or casting vote.

Council and Committee of Council.

25. The business of the Association shall be managed by the Council and the Committee of Council; and the respective constitutions, duties, powers, and modes of procedure of the Council and Committee of Council shall be determined on from time to time by the Association in general meeting.

26. The Committee of Council may take such steps as they think proper for having transferred to the Association, or to trustees for it, the complete ownership of, and control over, for the purposes and benefit of the Association, all the property and choses in action belonging to the unincorporated body hereinbefore referred to, and may get in and receive payment, and give good discharges for, and otherwise deal with, such property and choses in action in like manner in all respects as if the same had originally belonged to the Association.

Branches.

27. For the wider diffusion of the benefits of the Association, members may form themselves into separate bodies, to be styled Branches. Branches shall be so constituted, and shall have such powers and privileges, and be subject to such obligations, as shall be determined on from time to time by the Association in general meeting.

Officers.

28. There shall be the following officers of the Association—viz., a President of the Association, a President-elect, Vice-Presidents, a President of the Council, a Treasurer, an Editor of the JOURNAL, and a Secretary, who respectively shall be designated or elected, and hold office, and have and enjoy such duties, powers, and privileges; and as to the Editor of the JOURNAL and Secretary, receive such emolument as shall be determined from time to time by the Association in general meeting.

Votes of Members.

29. Every member shall have one vote and no more. No member shall be entitled to vote at any meeting unless all monies which at the time of such meeting shall have been due from him to the Association for more than one year shall have been paid.

30. Votes may be given either personally or by proxies; a proxy shall be appointed in writing under the hand of the appointor.

31. No person shall be appointed a proxy who is not a member; and the instrument appointing him shall be sent by post to the Secretary, so as to be delivered at the registered office of the Association not less than forty-eight hours before the time of holding the meeting at which the proxy proposes to vote.

32. Any instrument appointing a proxy shall be in the following form.

British Medical Association.

I,   of   in the county of   , being a member of the British Medical Association, hereby appoint   of   as my proxy to vote for me and on my behalf at the ordinary or extraordinary (as the case may be) general meeting of the Association, to be held on the   day of   , and at any adjournment thereof to be held on the   day of   next, or (as the case may be) at any meeting of the Association that may be held in the year.

As witness my hand this   day of

Signed by the said

In the presence of

Notices.

33. A notice may be served by the Association upon any member either personally or by sending it through the post, in a prepaid letter, addressed to such member at his registered place of abode.

34. Any notice, if served by post, shall be deemed to have been served at the time when the letter containing the same would be delivered in the ordinary course of the post; and in proving such service, it shall be sufficient to prove that the letter containing the notice was properly addressed and put into the post-office.

Winding-Up.

35. The Association shall be wound up voluntarily whenever an extraordinary resolution, as defined by the Companies' Act (1862), is passed, requiring the Association to be wound up voluntarily.

Names and addresses and descriptions of subscribers.

Dated the   day of   , 187 .

Witness to the above signatures.

PROPOSED BY-LAWS OF THE BRITISH MEDICAL ASSOCIATION.

Election and Expulsion of Members.

1. Any qualified medical practitioner not disqualified by any bye-law of the Association who shall be recommended as eligible by any three members shall be admitted a member by the Committee of Council, or by any Branch, provided he has the votes of not less than three-fourths of the members present at the meeting of the Committee of Council or Branch at which he is proposed for election, and agrees in writing to become a member, and has paid his subscription for the current year.

2. Any member accused of professional impropriety or misconduct may be expelled from the Association by a resolution in general meeting, and shall thereupon cease to be a member, provided that he shall have had two months' previous notice in writing from the Secretary of the alleged impropriety or misconduct.

Officers.

3. The President of the Association shall be elected annually, at the Annual General Meeting of the Association. He shall, at the time of his election, be a member resident in the county, city, or borough in which such meeting is held. The President shall be an *ex officio* member of the Council; and every member who has served the office of President shall bear the title of Vice-President of the Association for life, provided that he continue to be a member of the Association.

At each Annual General Meeting, a President shall be elected to serve until the next Annual General Meeting, and also a President for the then next ensuing year, who shall, until his year of office commences, bear the title of President-elect.   of   shall be the first President, and   of   shall be the first President-elect.

4. The first President of the Council shall be   of   .

Every subsequent President of the Council shall be elected by the Council. The President of the Council shall hold office for three years; and at the first meeting of the Council, after the determination of such office by effluxion of time, a new President of Council shall be elected for the then ensuing three years. Every member who has served the office of President of the Council shall, if so elected at the Annual General Meeting of the Association at which he retires, bear the title of Vice-President of the Association, provided that he continue to be a member of the Association.

5. Each of the following persons, so long as he continue a member of the Association, shall also bear the title of Vice-President of the Association, viz.:

(All persons who, at the Annual Meeting in 1875, *would be Vice-Presidents of the unincorporated body can be here named.)*

6. The Treasurer of the Association shall receive all the subscriptions and other monies payable to, or receivable by, the Association, and shall discharge all accounts which have been ordered by the Committee of Council to be paid. The Treasurer shall be elected annually at the Annual General Meeting, and shall be *ex officio* a member of Council; and every member who has served the office of Treasurer shall bear the title of Vice-President of the Association for life, provided that he continue to be a member of the Association.

The first Treasurer shall be of .

7. The Secretary of the Association shall reside in London, and devote his whole time to the business and affairs of the Association and of the office of the JOURNAL. His duties shall include (among others) the being present at the meetings of the Association, of the Council, and of the Committee of Council; the recording their respective minutes; the conducting of the correspondence of the Association; the superintending the collection of subscriptions; the enforcement of the regulations as regards those in arrear, and acting in general obedience to the directions of the Council and Committee of Council. of shall be the first Secretary; after he has ceased to be Secretary, his successor from time to time shall be elected by the Committee of Council.

The Secretary shall be paid for his services at such rate as the Committee of Council think fit; he shall hold his office during the pleasure of the Committee of Council, but he shall be entitled to three months' notice of the determination of his appointment, and he shall, if he wish to retire from such office, give three months' notice of such wish to the Committee of Council.

The offices of Secretary and Editor of the JOURNAL shall not be held by the same person.

Council.

8. The Council shall consist of the President, the President-elect, the Vice-Presidents, the President of the Council, the Treasurer, and the readers of addresses and Presidents of Sections at the Annual General Meetings of the Association for the current year, and (after the year 1875-6) for the next preceding year, together with (after the year 1875-6) such other members of the Association as are to be elected annually by the Branches in accordance with the bye-law in that behalf. In case of any question, the Committee of Council shall decide what constitutes a section at each Annual General Meeting, and who is to be considered the president of a section or the reader of an address. The Council shall hold its meetings at the time and place of the General Meetings of the Association, and at other times and places if summoned by the President of the Council, or by the Committee of Council, or by a requisition signed by not less than twenty members of the Council. The Council may prescribe rules and regulations for the conduct of its business. Twenty-one members shall be a quorum, and a majority of a quorum shall bind a minority; the Council may delegate any of its duties or powers to a subcommittee, consisting of not less than members of its body, who shall be deemed the agents of the Council in the matters delegated, and have power to act for and bind it accordingly.

9. Each Branch, as that body is hereinafter defined, shall, before the Annual General Meeting in 1876, and before each subsequent Annual General Meeting, elect members who shall represent that Branch in the Council for the ensuing year, according to the following scheme.

In a Branch consisting of twenty members, one member shall be elected as representative of that Branch, and one other member shall be elected, to be called the Honorary Secretary of that Branch.

If the members of any Branch amount to more than twenty, then, for every twenty additional members, each Branch shall be entitled to elect one additional representative member. A complete list of the members so elected as representatives, or as Honorary Secretaries of Branches, shall be sent to the Secretary of the Association at least five weeks before the Annual General Meeting, and they shall continue to be members of the Council until the Annual General Meeting of the ensuing year, when they may be re-elected or superseded by the Branch which they respectively represent.

10. The Council shall annually prepare a report of the general state and proceedings of the Association for the past year, and shall present such report in such manner and form as may from time to time be arranged by them at each Annual General Meeting of the Association. The Council shall also nominate gentlemen to read such addresses as may be deemed expedient at each Annual General Meeting, and shall also arrange the division into sections of the matters to be discussed and considered at each Annual General Meeting.

11. The Council shall also, at each Annual General Meeting, propose the place of meeting for the next Annual General Meeting, and nominate as President some member resident in the county, city, or borough in which such next Annual General Meeting is proposed to be held to be submitted for election. The Council shall also, at or before the time of each Annual General Meeting, elect, by voting-papers, twenty members of its own body as members of the Committee of Council for the ensuing year. The Council shall in all respects determine the order of business and mode of procedure at such Annual General Meeting, so far as the same respectively are not by the Articles of Association relating to general meetings or bye-laws otherwise determined.

The Committee of Council.

12. The Committee of Council shall consist of the President, the President-elect, the President of Council, the Vice-Presidents of the Association, the Treasurer, and, after the year 1875-6, of the Honorary Secretary for the time being of each Branch (who shall all be *ex officio* members of the Committee of Council), and, after the year 1875-6, also of twenty members of the Council to be elected by the Council, as provided in the next bye-law of the elected members of the Committee of Council. Such five as shall have attended the fewest meetings of the Committee of Council during the preceding twelve months shall retire at each Annual General Meeting of the Association, and shall be ineligible for re-election for the ensuing year. In the event of an equality of attendances, the retiring members or member shall be determined by lot.

13. The mode of election of the twenty elected members of the Committee of Council shall be as follows. The Committee of Council shall, in due time before the second and each subsequent Annual General Meeting of the Association, nominate twenty members of the Council, among whom no one of the five retiring members of the Committee shall be included. A list of the members of Council so nominated, together with a list of the new Council, shall be sent to each member of the new Council at least three weeks before each Annual General Meeting. Any two members of the Council shall be entitled to nominate any one or more members as members of the Committee of Council on giving notice of such nomination to the Secretary of the Association at least ten days before each Annual General Meeting. A list of members so nominated shall be sent to each member of the new Council before the Annual General Meeting; and the election of the twenty members of the Committee of Council out of all the members so nominated shall take place at the first meeting of the new Council and by means of voting-papers.

14. The Committee of Council shall manage the general affairs and business of the Association, except as otherwise provided by the articles or bye-laws. The Committee of Council shall meet not less than four times in each year. It shall be presided over by the President of Council, or in his absence by a chairman, to be appointed by the meeting. Its meetings shall be held at such time and place as the President of Council shall appoint, and the President of Council shall, upon receiving a requisition, signed by not less than ten members of the Committee, and specifying the business for which a special meeting is required, call together a special meeting thereof; but at no special meeting shall any business be transacted other than that for which such special meeting was called. Seven members of the Committee present at any meeting shall be a quorum, and a majority of a quorum shall have power to bind the minority. The Committee shall appoint the editor of the JOURNAL, and shall direct any other publications of the Association, and shall take cognizance of any matter which may require immediate decision.

15. The Committee of Council shall annually appoint a public accountant to audit the accounts of the Association up to the 31st day of December in each year, and to prepare a report containing a full statement of the assets and liabilities of the Association, and of its exact financial condition. The report shall be published in the JOURNAL within the first four months of each year.

16. In the event of the death, resignation, or incapacity of any officer of the Association during his term of office, the Committee of Council may appoint any member as his successor during the period for which he would have continued in office if he had not died, or resigned, or become incapable.

Branches.

17. Any number of members, not being less than twenty, meeting together, may form themselves into a Branch of the Association.

18. The Branches shall be free to govern themselves as their respective members shall think fit; but no Branch law shall be valid which, in the opinion of the Committee of Council, shall contravene any fundamental law of the Association, and no member of the Association shall be a member of more than one Branch.

19. Each Branch shall pay its own expenses, and no Branch shall be deemed for any purpose the agent of the Association, or have power to incur any obligation in its behalf.

MR. SIMON'S REPORT ON PUBLIC HEALTH.

THE following report has been presented by Mr. Simon to the President of the Local Government Board. From want of room, we omit the appendices to which reference is made.

As the officer appointed to make report to the Local Government Board, for the annual information of Parliament, in relation to matters concerning the public health, and to the inquiries and other proceedings which the Board, under the Public Health Act, 1858, may have directed in such matters, I beg leave to submit to you that for the past two and a half years, and particularly during the last year, the circumstances of official and administrative transition, consequent on the Acts of Parliament of 1871 and 1872, have been such that no consistent scheme of report in general relation to the sanitary interests, which are under the Board's superintendence, has been possible to me; and the present report, which regards the year 1873, must necessarily, even more than its two predecessors, illustrate the difficulty of the unsettled circumstances.

2. Of the Board's business during the year 1873, in matters of concern to the public health, the largest and incomparably the most important part was that which related to the action of local sanitary authorities under the Act of 1872 in appointing their officers of health and inspectors of nuisances. This action, which the Legislature, at the instance of the Royal Sanitary Commission, had made obligatory on all the local authorities, and which included as its most important feature that for the first time the medical profession throughout the country was to be brought into official use with a view to the better prevention of disease, was, at least in part, even in the terms of the statute, tentative[*]; and evidently the discretion to be used by each authority in its compliance with the terms of the law would, for better or worse, be of great future consequence to the local working of the Sanitary Acts, and to eventual public estimation of the new machinery. The Board throughout the year 1873 was advising local authorities in detail on particular schemes of appointment and duty for the above-mentioned sanitary offices; but this branch of business was exclusively in the hands of the non-medical officers of the Board, and I therefore do not here attempt to give any account of the proceedings or their results.

3. Of the medical inspections which were made during 1873 in regard of local sanitary questions, and which, under the peculiar circumstances of the year, were but forty-two in number, I subjoin a detailed list. In one of them the inspection related to a question of hospital accommodation, and in one to certain manufacturing processes causing nuisances to several districts; but, otherwise, universally the ground of inquiry was some more or less important presence of disease; and the last column of the subjoined table will enable some judgment to be formed as to the extent to which the powers of the authorities had been exercised, and the duties fulfilled, in the particular instances referred to. I may add that, as some of these local inquiries were in cases of much sanitary interest, I propose bringing their results before you, as soon as practicable, in a separate supplementary report.

4. One considerable inquiry, of a sort different from the above, was in progress during part of the year, but has not hitherto been completed. It has in view to examine the sanitary conditions under which certain industries are now carried on, as compared with the lung-diseasing conditions which existed in 1860-64, when special report on them was made to the Privy Council; and I have to state that during 1873 contributions towards the making of that comparison were furnished in inquiries of the Medical Department as follows: by Dr. Ballard, in respect of metal trades at Sheffield, Wolverhampton, Alcester, Bromsgrove, and Birmingham; by Dr. Blaxall, in respect of glove-making at Yeovil; by Dr. E. Smith, in respect of tailoring and printing in London; by Dr. Thorne, in respect of pillow-lace manufacture at Newport and Towcester, of machine-lace and hosiery manufacture at Nottingham, Radford, and Basford, of straw-plaiting at Tring and Berkhampstead, of silk-weaving and watch-making at Coventry, and of hosiery manufacture at Leicester and Hinckley.

5. The business of the Board as to vaccination in 1873 regarded, as usual, the following matters:—(*a*) the proceedings of local authorities and officers under the Vaccination Acts; (*b*) the provisions by which the national supply of vaccine lymph is maintained; and (*c*) the arrangements which give effect to the Order of Council regulating the qualifications of public vaccinators. (*a*) In superintendence of local proceedings under the Vaccination Acts, the Medical Departments inspected 1617 vaccination districts in 354 unions or parishes, each district inspection involving, first, an inquiry into the state of vaccination in the district; secondly, where requisite, a notification to the authority as to defects found in the local administration of the Acts, with advice as to the changes required; and thirdly, in suitable cases, a recommendation of the vaccinator for pecuniary award, under section 5 of the Vaccination Act, 1867, out of moneys voted by Parliament for the purpose, and of which in 1873 an amount of £8508 17s. 4d. was thus distributed. Particulars of the vaccination inspections of 1873, and of the awards made to public vaccinators, are subjoined in Appendix, No. 2. *b.* Acting as National Vaccine Establishment, the Medical Department supplied vaccine lymph in answer to 9569 applications. Particulars as to the sources whence this lymph was derived, and as to the applicants who received it, are given, with other statistics of the National Vaccine Establishment, in Appendix, No. 3. The stations supplying lymph for the public service were, as usual, specially inspected. (*c*) The several educational vaccinating stations, established with reference to the Order of Council which regulates the qualifications of public vaccinators, require in this relation to be inspected on behalf of the Board, and were, as usual, so inspected in 1873; but as they are for the most part stations which also supply lymph for the public service, and as the efficiency of a station for the latter purpose greatly concerns its efficiency for the former, the inspection of them in the one relation conveniently combines with inspection of them in the other, and in practice the two objects are attained in single inspections.

6. Lastly, I have to report that in 1873, and particularly during much of the second half of the year, Asiatic cholera was more or less prevalent in many parts of continental Europe, and sometimes—as at Paris, Havre, Rotterdam, and Antwerp—in places which have constant and easy communication with England. In our relations to cholera on the continent of Europe, there are at present some points of interest on which I may have occasion to submit to you a supplementary report; but I need not here do more than refer to the Board's actual proceedings as to cholera during the year on which I am reporting. In July 1873, in view of the then circumstances, the Board issued (instead of an Order which had been issued in 1871 by the Lords of the Council) an amended Order, prescribing rules for the detention and examination of ships suspected of choleraic infection, and for dealing with cases of actual infection. See Appendix, No. 4. The Board also circulated among the local sanitary authorities of England a Memorandum (App., No. 5), which, at the Board's desire, I had prepared, on the precautions generally proper for local adoption under the circumstances; and particular communications on the subject of local arrangements were also had by the Board with several of the sanitary authorities of ports. In a few cases, namely, three times in the Thames, twice at Liverpool, once at Southampton, and at least once at Swansea, the local arrangements were tested by infectious arrivals; and in most of these cases, as well as in several instances of false alarm, local inquiry was made by inspectors from the Medical Department; Dr. Buchanan, Mr. Radcliffe, Dr. Gwynne Harries, and Mr. Power.[*]

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[*] In regard of rural sanitary districts, the first appointments of medical officers of health and inspectors of nuisances under the Act must be for a period not exceeding five years.

[*] In one case, among those which particularly concerned London, the danger was extremely great. On the 28th July, a ship from Hamburg landed at Blackwall a body of eighty-two Danish and Swedish emigrants, in destination for New Zealand. During the voyage, no sort of illness, except sea-sickness, had been noted among them, and therefore no objection to their landing had been raised under the Board's recent order; but almost immediately afterwards, when, to await re-shipment, they had settled themselves in various lodging-houses in Whitechapel, and were legally in the position of ordinary residents in London, it became evident that cholera was among them; and the Board's first information of this state of the case was due to the courtesy of a private medical practitioner who had been called to the sick. As soon as his letter was received by the Board, communication on the subject was had by the medical department with the authorities and others who were concerned, and by great exertions of all, under a state of law in which everything depended on voluntary exertions on one side and absence of objection on the other, the emigrants by 31st July (the day on which they were to have been re-shipped for New Zealand) were collected and placed in isolation on the port-authority's hospital-ship *Rhin*, off Gravesend, to remain there under medical care. Then the houses where they had been temporarily lodged, and which meanwhile had been under close observation by the Whitechapel officer of health, Mr. Liddle, were finally disinfected. Of the eighty-two emigrants, twenty-eight sickened and eight died; but to our own population there was no extension of the disease. The removal was managed by the emigration agent, to whom the great importance had been explained of getting all the

The above account refers, as I have stated, to a period of official and administrative transition, during which it is impossible to represent the Local Government Board as directing inquiries under the Public Health Act, 1858, in any definite relation to the new sanitary system of the country; but, with the end of the year 1873, that period of transition may be deemed to have nearly accomplished itself; and I may hope that, before the next season arrives for the submission of the Annual Report under the Act of 1858, it may have become possible to begin, in a really useful sense, such new succession of reports as the changed conditions of sanitary administration seemed henceforth to require.

If, in that hope, I may venture to indicate from beforehand the purposes which it seems to me the reports under the Act of 1858 must in future be expected distinctively to fulfil, I would say that, whatever else they may be expected to do, at least they must be expected to set forth the knowledge which the Board, through its department of sanitary inquiry, obtains, with regard to the *practical effect of the laws which are in force for the prevention of disease throughout England.* It is the common conviction of persons who have most studied the subject, that the deaths which occur in this country (now about half a million a year), are by fully a third part more numerous than they would be, if existing knowledge of the chief causes of disease were reasonably well applied throughout the country; and I need hardly add that, if thus some 125,000 cases of preventable suffering annually attain their final record in the death-register, that vast annual total has the terrible further meaning that each unit in it represents an indefinite (often very large) other number of cases, in which preventable disease, not ended in death, though often of far-reaching ill-effects on life, has also during the year been suffered. The Local Government Board, viewed as a Central Board of Health, and the more than fifteen hundred District Authorities which, each with its appointed Medical Officer of Health, locally administer the health-laws, may be regarded as having had their respective functions assigned to them in special and systematic relation to that state of things; and it will be peculiarly with regard to that relation, namely, as rendering account of the central share of the responsibility, that the future annual reports of the holder of my office will, I apprehend, have their essential meaning.

In the sanitary administration of England, there are certain prescribed cases (chiefly in regard of local powers of rating, mortgaging, and byelaw making, where the local action cannot be taken without previous express approval of the Central Authority; and no doubt the Central Authority, in its exercise of that responsibility, has often been able to influence very advantageously the course which Local Authorities have proposed to take. Also it possesses, in supposed reserve for great epidemic emergencies, a power to issue directions for certain purposes under the Diseases Prevention Act, 1855. But with exception of such special cases, the function of the Central Authority in regard of local sanitary action is primarily one of mere observation and inquiry. Not itself authorised to interfere in such action, except where the results are at fault, it watches and interrogates results; and it is distinctively in this relation to the sanitary interests of the country that the Local Government Board will be represented by its ordinary proceedings under the Public Health Act, 1858. For the eventual test of local sanitary administration will be the success with which it prevents disease; and, in each case where the preventable disease is not prevented, the Local Government Board can, by skilled inspection under the Public Health Act, 1858, satisfy itself as to the circumstances and causes of the failure: giving thereupon such skilled advice, or proceeding in certain extreme cases to issue (under § 49 of the Act of 1866 or under the Diseases Prevention Act), such orders and directions as the particular occasion may require.

What standards of success in disease-prevention ought to be taken as satisfactory by the Local Authorities, which now have to act in that matter, and by the Central Authority, which has to superintend their action, is a question on which I need not here submit more than very few general observations. Our large annual total of preventable deaths receives probably from most or all of the fifteen hundred sanitary districts of the country contributions, larger or smaller, which in their respective degrees are evidences of sanitary unsuccess; and I would therefore point out, as of very important bearing on the whole tone of sanitary administration, that, in the death-accounts which have henceforth to be critically examined by both Central and Local Authorities, figures which arithmetically make but little show may, for administrative purposes, have immense meaning. One or two deaths by enteric fever, noted in a Quarterly Return of the Registrar-General in regard of some village or small country town, may, in hundreds of instances, correspond to long-continued local conditions of scandalous filth and unwholesomeness; one or two deaths by scarlatina or small-pox, almost unnoted in regard of some considerable town, may represent the beginning of what, three months later, will be a terrible epidemic, agitating the community with distress and fear, and adding prodigiously to the whole year's death-rate of the place; and it is with reference to considerations like these, that records of even single deaths will now have to be medically read and interpreted. In regard of such epidemic, visitations as are aptest in this country to excite local alarm, and to be felt as conclusive appeals for central interference, it may appear a mere truism to say that, in proportion as the disease is present, the time for preventing it is past; but for practical purposes it is indeed all-important to remember that sanitary administration has its hopes of success in preventing, not in arresting, great epidemics; and that, if warnings are not taken from the smaller excesses of disease, catastrophes, not further warnings, may be next to come. It seems almost unnecessary to add, that a method of procedure which waits for death as its ground of action may peculiarly dispense with cumulative proofs; and that, as no one preventable death can any longer be remedied in regard of him who has suffered it, so the record of it may the more emphatically claim to be read as a protest on behalf of others.

The vigilance which the Local Government Board has to exercise in regard of the local prevention of disease in England will, of course, not universally need to express itself in the form of inspections. As regards the Board's giving of advice or assistance to local sanitary authorities and their officers, clearly this would be limited, first, by the fact that, unasked, it could not properly have place except where the local results showed need for it; and secondly, by the consideration that, in the large and permanent interests of sanitary government, a maximum of local self-reliance, and a minimum of central intervention, are in themselves important aims. And even as regards mere inquiry into the facts of what is locally going on, correspondence (often bringing in the reports of local officers) will in some cases afford the Board all adequate information for its purpose.

On the other hand, and provided due regard be had to the above considerations, the advantage which may be gained to the sanitary progress of the country by inspections conducted, at least for many years, on a sufficiently large scale, under the Public Health Act, 1858, can hardly, I think, be over-estimated. It has, I believe, been the experience of the Local Government Board, in those branches of its administration which do not concern the public health (as particularly in its poor-law and common municipal business), that the personal agency of Inspectors of the Board, as distinguished from mere inquiry and advice by letter, is, in a very large proportion of cases, essential to the success of the work: first, in order that the Board may competently understand the local conditions or proceedings which it desires to judge; and, secondly, in order that, in a degree and with an effect which no letter-writing can attain, it may make to the local authorities, with which it has concern, precisely such representations, and may give them precisely such advice, as the particular local circumstances require. The Board would probably not expect experience of a different kind in its future, essentially medical, province of sanitary superintendence; and, indeed, as regards this province, my own experience enables me to say with certainty that it is peculiarly one in which clerical, as compared with inspectorial agency, would show itself inadequate to the purpose. By skilled inspections under the Public Health Act, 1858, on such a scale as practically to represent a central audit of local death-accounts, and an exertion of central influence or authority, in favour of more active or better directed local efforts, in places where human life had not been sufficiently cared for, the Local Government Board would be, in reality, though only in the limited sense which the law prescribes, a Board of Sanitary Superintendence for England.

Briefly, then, as regards the Annual Reports to be hereafter made under the Public Health Act, 1858, the state of the case, as I apprehend it, will be this. The Local Government Board will, from time to time, determine what degree of central vigilance as to the local prevention of disease shall be represented by its proceedings under the Act, and will regulate, in accordance with such standard of work, the staff by which the work has to be executed. It will be for the holder of my office annually to lay before the Board a report of the proceedings so taken; substantially a report on the new sanitary administration of the country, as examined by the Board from the standpoint of results; and which, so far as means for it exist, would aim at exhibiting, for the information of Parliament, what, year by year, are the

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emigrants together into suitable quarters, where their state of health could be medically watched and cases of incipient cholera be isolated; but this action, taken by him with the co-operation of the recently appointed able health-officer of the port, Mr. Harry Leach, was without any support from law. That he was able to do as advised, and to do it in such a way as to transfer an immense danger from the heart of London to a comparatively safe distance, was due to the goodwill of the port-authority, who made their Gravesend ship available for the relief of Whitechapel; and it seems to me that, by acting in that liberal spirit, the Corporation of the City helped London out of a serious difficulty. Dr. Buchanan, assisted in part by Dr. Gwynne Harries, was the inspector who visited in this important case.

chief existing excesses of disease in the several sanitary divisions of England, and what the relation of such excesses to insufficiencies of law or administration. Incidentally to the above, which I have regarded as the essential business of future annual reports under the Act, it would probably be of advantage to the public service that the reporter should use the same annual opportunity for submitting to the Board, with a view to publication, such new knowledge as the Medical Department might, during the past year, have acquired with reference to the prevention of disease, and such new memoranda of advice on sanitary subjects as the growing experience of the Department might be held to justify.

From among the many points of local relation which the Board's sanitary superintendence must include, there is one which in conclusion I will specially mention; not, indeed, without confessing that, in love and honour for my own profession, I regard it with warm personal interest; but believing that I may, nevertheless, without partiality, describe it as of fundamental interest to the working of the scheme of recent legislation. While watching, from the point of view of results, the action taken by local authorities throughout England for the better prevention of disease, the Board will be superintending the exact province of work for which the respective local authorities under the Act of 1872 are required to appoint their Medical Officers of Health; and the inspections under the Public Health Act, 1858, will therefore, so far as they extend, give the Board knowledge of the working of that new institution in the various forms in which it is being tried throughout the country, and in which, in regard of about half the number of cases, the trial is with the Board's part-payment and particular responsibility. Such inspections, too, as bringing the Board's Medical Department into direct relation with the local Officers of Health, and giving the Department opportunity to contribute any assistance in its power to the success of the local institution, will, where they extend, represent an object which the Royal Sanitary Commission, in making the recommendations on which the Public Health Acts of 1871 and 1872 were founded, put forward as an element of their scheme. As regards that intention of the Royal Sanitary Commission, I need hardly say that, to any holder of my office, it must always be amongst the highest of ambitions to be able to see the experience of this Department really conducive to the information and influence of younger fellow-labourers in other parts of the same great field of public service; and it would be affectation in me to deny that, during many early years of the new organisation, relations in that sense between the central and local services may often be of important, and sometimes of indispensable use, to the latter. I would, however, also express my confident expectation that, though from the nature of the case the relation in these earlier years must chiefly consist in assistance which the central office can so render, succeeding years will more and more bring the central office under obligation to local contributors of knowledge, and to local illustrations of progress. And year by year it will surely grow to be among the most useful, as it must also be among the happiest duties of the Annual Reporter, under the Public Health Act, 1858, to represent, for the information of all the Officers of Health of the kingdom, such additional fruits of scientific observation, and such new evidences of practical success, as will have come to the Board's knowledge from among their number.

THE VISITATION OF EXAMINATIONS AND THE IRISH LICENSING BODIES.

A DUBLIN correspondent writes to us:

The mode in which the Medical Council has treated the reports of the visitors of the Medical Council upon the examinations at the Queen's University and the Royal College of Surgeons has produced general dissatisfaction among the profession in Ireland. The faults of the examinations are quite well known to Dublin, and duly appreciated; but not only the authorities of the licensing bodies themselves, but the whole profession in Ireland, are, we think, very justly indignant that severe censures should be passed upon Irish bodies for defects not more glaring than those discovered in the Scotch bodies. The remarks of Sir William Gull are considered specially out of place. Why did not Sir William attack the Scotch bodies as well as the Irish? Even if a certain Irish representative should seem an obstructive member of the Council, it is no reason why the body he represents should be unjustly attacked, almost in direct opposition, and certainly not in proportion to the report of the visitors of examinations. Yet these are the feelings Sir William Gull's remarks have stirred up in Dublin. The result is likely to be a general want of confidence in the fairness with which the visitors' reports were treated by the Council. In fact, the injudicious conduct of the Council has created a sort of anti-English feeling among the profession, similar to that which exists among the Home Rulers on general questions.—We regret this extremely, as we believe every facility was offered to the visitors for inspecting the examinations; and even the apparent shrinking from observation which has been insinuated against the authorities of the College of Surgeons was, we know, purely accidental and unintentional, and has, we think, been satisfactorily explained.

DEATH FROM CHLOROFORM.

WE understand that a death occurred from chloroform at the Leeds Infirmary on the 11th instant. By the courtesy of Mr. Pickles, we shall be able to publish notes of the case in our impression of next week.

THE CONJOINT EXAMINING SCHEME.

THE Council of the Royal College of Surgeons have been seriously occupied at recent meetings on the final revision of the terms of arrangement for the Conjoint Examinations. They have endeavoured to arrive at a manner of meeting the difficulty in which they are placed by the terms of their Charter as to the appointment of Examiners in Surgery in concert with the Committee of Reference, and we believe the difficulty may be considered to be satisfactorily solved. It is probable that students registered on and after the 1st of October next will receive notice that they will be required to pass under the Scheme of the Conjoint Examining Board.

ASSOCIATION INTELLIGENCE.

NOTICE OF SPECIAL GENERAL MEETING.

NOTICE is hereby given that, in accordance with Law 20, a Special General Meeting of the Association will be held at Norwich on Thursday, the 13th day of August next, immediately on conclusion of the Address in Surgery, for the purpose of considering the resolutions necessary for the incorporation of the Association.

FRANCIS FOWKE, *General Secretary.*

37, Great Queen Street, London, July 9th, 1874.

BRITISH MEDICAL ASSOCIATION:

FORTY-SECOND ANNUAL MEETING.

THE Annual Meeting of the British Medical Association will be held at Norwich, on Tuesday, Wednesday, Thursday, and Friday, August 11th, 12th, 13th, and 14th, 1874.

President—Sir WILLIAM FERGUSSON, Bart., F.R.S., Surgeon to King's College Hospital, London.

President-elect—EDWARD COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

An Address in Medicine will be given by J. RUSSELL REYNOLDS, M.D., F.R.S., Physician to University College Hospital.

An Address in Surgery will be given by W. CADGE, Esq., Surgeon to the Norfolk and Norwich Hospital.

An Address in Obstetric Medicine will be given by JAMES MATTHEWS DUNCAN, M.D., F.R.S.Edin., Lecturer on Midwifery and Diseases of Women and Children in the School of Medicine, Edinburgh.

The business of the Association will be transacted in four Sections, viz.:—

SECTION A. MEDICINE.—*President:* Dr. Eade, Norwich. *Vice-Presidents:* Dr. Sydney Ringer, London; Dr. Durrant, Ipswich. *Secretaries:* Dr. Bradbury, 59, Corpus Buildings, Cambridge; Dr. Lowe, King Street, King's Lynn.

SECTION B. SURGERY.—*President:* Sir James Paget, Bart., F.R.S., London. *Vice-Presidents:* T. W. Crosse, Esq., Norwich; Dr. Macnamara, Dublin. *Secretaries:* F. Worthington, Esq., Lowestoft; Reginald Harrison, Esq., 38, Rodney Street, Liverpool.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Churchill, Dublin. *Vice-Presidents:* Dr. W. S. Playfair, London; Dr. Steele, Liverpool. *Secretaries:* Dr. Edis, 23, Sackville Street, London; F. Image, Esq., Westgate Street, Bury St. Edmunds.

SECTION D. PUBLIC MEDICINE.—*President:* W. H. Michael, Esq., London; *Vice-Presidents:* Dr. Bateman, Norwich; Dr. Ransome, Bowden. *Secretaries:* Dr. Bond, Gloucester; Dr. Leech, Manchester.

The Honorary Local Secretaries are:

Dr. J. B. PITT, Norwich.
H. S. ROBINSON, Esq., Norwich.
Dr. BEVERLEY, Norwich.

TUESDAY, *August* 11*th.*

9.30 A.M.—COMMITTEE ON QUALIFICATION IN STATE MEDICINE.
10.30 A.M.—CATHEDRAL SERVICE.
1 P.M.—MEETING OF COMMITTEE OF COUNCIL.
3 P.M.—MEETING OF THE COUNCIL, 1873-74.
8. P.M.—GENERAL MEETING—President's Address

BUSINESS: President resigns Chair to President-elect; Vote of Thanks to ex-President; President's Address; Report of Council; Election of General Secretary.

WEDNESDAY, *August* 12*th.*

9.30 A.M.—MEETING OF COUNCIL, 1874-75.
11.30 A.M.—SECOND GENERAL MEETING.
11.30 A.M.—ADDRESS IN MEDICINE, by Dr. RUSSELL REYNOLDS, F.R.S.
2 to 5 P.M.—SECTIONAL MEETINGS.
9 P.M.—SOIRÉE AT ST. ANDREW'S HALL.

THURSDAY, *August* 13*th.*

9 A.M.—MEETING OF THE COMMITTEE OF COUNCIL.
10 A.M.—THIRD GENERAL MEETING—Reports of Committees.
11 A.M.—ADDRESS IN SURGERY, by WILLIAM CADGE, Esq.
2 to 5 P.M.—SECTIONAL MEETINGS.
6.30 P.M.—PUBLIC DINNER.

FRIDAY, *August* 14*th.*

10 A.M.—ADDRESS IN OBSTETRIC MEDICINE, by Dr. MATTHEWS DUNCAN.
11 A.M.—SECTIONAL MEETINGS.
1.30 P.M.—CONCLUDING GENERAL MEETING.

RECEPTION OF MEMBERS, AND GENERAL ARRANGEMENTS.

The Central Hall of the Assembly Rooms will be fitted up as a Reception-Room, and will be opened at 9 A.M. on Tuesday, August 11th, and on the following days at 8 A.M., for the issue of tickets and the daily journal to members.

Gentlemen are requested to register their names and addresses in the Reception-Room as soon after their arrival as possible.

Provision will be made for the receipt and postage of letters, the receipt and delivery of telegrams, and for the care of parcels, umbrellas, etc.

At the end of the Reception-Room, a Refreshment Buffet will be arranged.

For the Editor of the JOURNAL and the General Secretary, a room will be fitted up at Noverre's Rooms.

The Assembly Rooms contain, besides the Reception-Room, on the right hand of the entrance, a room fitted up for the Local Secretaries and the Secretaries of Committees. There are also, under the same roof, a room appointed for the Medicine Section, a Reading and Writing Room, a Luncheon Room, Lavatories, and the Annual Museum.

Hotels.—The following are the chief Hotels: "The Norfolk", in St. Giles's Street; "The Royal", in the Market Place; "The Castle", on the Hill; "The Maid's Head", Winsum Street, Jombland; "The Rampant Horse", Rampant Horse Street; "Mortimer's Hotel", in St. Giles's Street; and many others.

Private Lodgings.—For Private Lodgings and full particulars respecting the Hotels, application should be made to Mr. Horace Turner, Upper St. Giles's Street, Norwich, Honorary Secretary of the Reception Committee.

Soirée.—A *Soirée* will be given in St. Andrew's Hall, Norwich, on the Wednesday evening, August 12th, and will consist of Music, Scientific Exhibitions, Paintings of the Norfolk and Suffolk School of Artists, and Refreshments.

ANNUAL MUSEUM.

The seventh annual Museum of the British Medical Association will be held at the Assembly Rooms, and will be open daily from 10 A.M. till 6 P.M., on August 11th, 12th, 13th, and 14th, for the exhibition of the following objects.

1. Latest inventions in medical and surgical instruments and appliances of all kinds.
2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids.
3. General pathological specimens; with photographic models, drawings, etc., illustrating disease.
4. Urinary calculi; with drawings or diagrams of urinary disease, and of operations on the urinary organs.
5. Drawings, diagrams, or models illustrating the ventilation of hospitals and private dwellings.
6. Microscopic pathological specimens.

N.B.—Specimens of disease and calculi which have been exhibited at former meetings cannot be received on this occasion.

The following is a list of the Museum Committee: Mr. Wm. Cadge, *Chairman*, 24, St. Giles' Street, Norwich; Mr. Francis Sutton, London Street, Norwich; Mr. Jonathan Hutchinson, 4, Finsbury Circus, London, E.C.; Mr. Joseph Allen, Tombland, Norwich; Mr. Francis Fowke, 37, Great Queen Street, London, W.C.; Mr. Chas. Williams, 9, Prince of Wales' Road, Norwich; Mr. J. R. Baumgartner, Norfolk and Norwich Hospital; Mr. Charles Firth, *Hon. Sec.*, 65, St. Giles' Street, Norwich.

NOTICE TO EXHIBITORS.—Application to be made as soon as possible, at the same time giving a list of objects, and mentioning the space required. Each object to be accompanied by a printed or written description, or reference, for insertion in the Catalogue; and it is important that these descriptions should be sent *not later than July 28th.*

All parcels to be delivered on or before August 4th, and to be removed within three days after August 14th. They must be addressed "British Medical Association, care of C. Firth, Esq., Assembly Rooms, Norwich". All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be enclosed in each package, ready to be fixed on the outside.

All communications to be addressed to CHARLES FIRTH, Esq., St. Giles' Street, Norwich, the Honorary Secretary to the Museum Committee.

EXCURSIONS.

On Friday afternoon, parties of ladies and gentlemen, accompanied by gentlemen able to give information, will be formed to visit—

1. The Cathedral (where a paper will be read), and other places of antiquarian interest near at hand.
2. The Waterworks, Filtering Beds, and Reservoirs; the Sewerage Works and Farm; Bishop Hall's Palace (now the Dolphin Inn); also, on the route of this excursion, will be seen the remains of the City Walls at St. Benedict's Gates, Chapel Field, and Ber Street Gates.
3. Cossey Hall and Park.

Later on in the afternoon, J. J. Colman, Esq., M.P., kindly invites the members of the Association to a *déjeuner.*—All intending to accept Mr. Colman's invitation, whether members of the Association or ladies accompanying them, are particularly requested to notify this fact as early as possible to Mr. W. Bransby Francis, St. Clement's, Norwich.

On Saturday there will be excursions for members of the Association and ladies—

1. To Wells, Holkham Hall and Park, the Danish Camp at Warham, Binham Priory, and Walsingham Abbey.
2. To Swaffham, Castleacre Priory, Houghton Hall, and Raynham Hall.
3. To Aylsham Church, Blickling Hall, Felbrig Park, Beeston Hills, and Cromer, returning by Gunton Park.—The Marchioness of Lothian kindly invites members who join this excursion to a luncheon at Blickling Hall.
4. To Fulton Broad, joining the next party.
5. To Herringfleet and Somerleyton Hall.

As special arrangements have to be made for carriages to convey the parties joining these excursions, the numbers must be limited, and tickets cannot be issued after Wednesday, August 12th.

6. There will also be a Yacht Excursion, which will be limited to the accommodation afforded by the yachts at the disposal of the Excursion Committee.

Members wishing to join any of these excursions are desired to communicate early with the Honorary Secretary of the Excursion Committee, Mr. W. Bransby Francis, St. Clement's, Norwich.

The following Places of Interest in the Neighbourhood of Norwich may be conveniently visited by members and ladies during the meeting: Yarmouth; Lowestoft: Cossey Hall; Caistor, by Norwich; Thetford; Wymondham's Geological Stations at Bramerton, Thorpe, Horstead; Botanical Stations at Horsford and St. Faith's. Hunstanton and Sandringham can also be visited from Norwich in a day.

In Norwich, amongst the objects of most interest are the Cathedral, which is open daily; forty-two churches, those most worthy of a visit being St. Peter's, Mancroft; St. Giles's; St. Stephen's; St. John's, Maddermarket; St. Gregory's; St. Michael at Plea; St. Michael at Castany; St. James's; and St. Peter-per-Mountergate; etc. Amongst the ancient buildings, are St. Andrew's Hall, the Guildhall, the Castle (now the County Gaol), St. Helen's Hospital, the Old Bridewell (now a tobacco manufactory), Bishop Hall's Palace (now the Dolphin Inn); the Old Well in St. Laurence, recently restored; and the remains of the City Walls, standing in various places. Mousehold Heath is a short distance from the city.

During the meeting, the following places will be open to members of the Association on presenting their cards of membership: The Public Library; the Literary Institutions; the Free Library; the Norfolk and Norwich Hospitals; the Eye Infirmary; the Children's Infirmary; the

Bethel (a charitable institution for lunatics); St. Helen's Hospital (a charitable institution for decayed tradesmen); the School for the Indigent Blind; the Norfolk and Norwich Museum; the Guildhall, with the City Plate; the Castle (now the County Gaol); the City Gaol; the County Asylum; the Waterworks; the Sewerage Works and Farm; J. J. Colman's Works; Bolingbroke's, Clabburn's, and Willett's; the Yarn, Power-loom, and other Factories; Barnard and Bishop's Iron-works, and many others.

The hours at which these places can be visited shall be published at a future date.

PAPERS.

The following papers have been promised.

Ogle, J. W., M.D. 1. Cases of Tumour of the Cerebellum; 2. Cases of Adenomatous Tumours within the Thorax.

Fothergill, J. Milner, M.D. The Systemic Indications of Chronic Bright's Disease.

Gowers, W. R., M.D. Cases of Convulsions from Organic Brain-Disease.

Ferrier, D., M.D. The Localisation of Function in the Brain.

Eade, Peter, M.D. A Disease of Carpenters.

Mackenzie, Morell, M.D. On the Ætiology of Bronchocele.

Anningson, Bushell, M.B. On the Ætiology of Infectious Diseases.

Thompson, J. Ashburton, Esq. General Remarks on the Internal Administration of Free Phosphorus.

Bradbury, J. B., M.D. Notes of Six Cases of Hydatids of the Liver treated by Puncture.

Hicks, J. Braxton, M.D., F.R.S. On the Adaptation of the Galvanic Cautery to Gynæcology.

Wright, Frederick W., M.D. On Decollation as a Mode of Delivery in Arm-Presentations.

Ross, James, M.D. On the Action of Mercury.

Smart, W. R. E., M.D., C.B., Inspector-General of Hospitals and Fleets. On the Relative Frequency, the Causes, and Modes of Suicidal Attempts in the Navy and Army.

Fox, Cornelius B., M.D. Water-Analysis; as it should and as it should not be performed by the Medical Officer of Health.

Thornton, W. Pugin, Esq. On the Indications for Tracheotomy afforded by the Laryngoscope.

Baker, J. Wright, Esq. Case of Lithotomy: the Nucleus of the Stone being a Broken Piece of Elastic Catheter.

Thorowgood, J. C., M.D. On the Nature of the Asthmatic Paroxysm.

Duncan, J. Matthews, M.D. Laboratory Note: On the Tensile Strength of the Fœtus.

Cormack, Sir John Rose, M.D. Diphtheritic Paralysis.

Cormack, Sir John Rose, M.D. Successful Resection of the Shoulder-joint in Case of Gunshot Wound.

Althaus, J., M.D. On some Forms of Spinal Exhaustion, and their Treatment by the Constant Galvanic Current.

Drysdale, Charles R., M.D. On Dysmenorrhœa.

Braidwood, P. M., M.D. On Cerebro-Spinal Concussion.

Clapperton, James, Esq. Maternal Impressions.

Buchanan, George, M.D. Some Points in the Anatomy and Surgery of Talipes Varus.

Barwell, Richard, Esq. A New Method of treating Chronic Strumous Synovitis, more especially of the Knee.

Drysdale, C. R., M.D. When, and for how long, should Mercury be used in the treatment of Syphilis?

Beverley, M., M.D. Hospital Hygiene, illustrated by references to the Norfolk and Norwich Hospital in the past, present, and future.

Rumsey, H. W., M.D., F.R.S. The Correlation of Sick Poor Relief and Public Health Administration.

Haviland, Alfred, Esq. The Geographical Distribution of Disease within the area of the combined Sanitary Authorities of the Counties of Northampton, Leicester, Rutland, and Bucks.

Bond, Francis T., M.D.. 1. On a New Form of Disinfectant; 2. On an Improved Form of Dry Closet; 3. On a New Method of dealing with House-Slops in rural districts.

Higgens, Charles, Esq. On Muscular Asthenopia.

Steele, A. B., L.K.Q.C.P. On the Treatment of Mechanical Dysmenorrhœa and Chronic Induration of the Cervix Uteri.

Chambers, T., M.R.C.P. 1. A Case of Complete Inversion of the Uterus, profuse *Post Partum* Hæmorrhage, and rapid Death of the Patient. 2. A Case of Retroflexion of the Gravid Uterus: Retention of Urine: Vesical Hæmorrhage: Transfusion with Lamb's Blood: Death.

Amyot, Thomas E., Esq. Cases of Traumatic Diabetes: with some Remarks as to Treatment.

Edis, Arthur W., M.D. The Rectum in its relation to Uterine Disease.

Dowse, T. S., M.D. 1. The Treatment of Acute Rheumatism. 2. A Case of Tumour originating from the Dura Mater of the Spinal Cord in the Cervical Region, producing General Paresis.

Skrimshire, John, M.D. (Holt). On Preventive Surgery in its Relation to Injuries from Agricultural Implements.

Lund, Edward, Esq. On Incision *versus* Excision of the Knee in Children.

Manby, F. E., Esq. The Treatment of Loose Cartilages.

Bradley, S. M., Esq. On the Mode of Employing Pressure in Cases of Chronic Inflammatory Enlargement.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above-named officers *on or before the 1st of August*.

No paper must exceed *twenty* minutes in reading; and no subsequent speech must exceed *ten* minutes.

All speeches at the General Meeting must not exceed *ten* minutes each.

FRANCIS FOWKE, *General Secretary*.

General Secretary's Office, 37, Great Queen Street, W.C.,
June 25th, 1874.

CUMBERLAND AND WESTMORLAND BRANCH.

THE annual meeting of the above Branch will be held at Carlisle, on Wednesday, July 29th, 1874.

Gentlemen intending to bring forward communications, are requested to give immediate notice.

HENRY BARNES, M.D., *Honorary Secretary*.

Carlisle, June 30th, 1874.

BIKMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held on Tuesday, June 23rd, at the Midland Hotel, Birmingham. There was a large attendance of members and visitors.

The retiring President, Mr. FURNEAUX JORDAN, introduced the President for the ensuing year, Mr. W. C. GARMAN of Wednesbury, who then took the chair.

Dr. T. UNDERHILL proposed a vote of thanks to the retiring President, which was seconded by Dr. A. HARRISON and carried with acclamation. Mr. JORDAN acknowledged the compliment.

New Members.—The following gentlemen were unanimously elected members of the Branch:—Messrs. C. A. McMunn, M.B., Wolverhampton; Philip Bindley, M.B., the General Hospital; Francis Warner, M.D., Acock's Green; Edward Mathews, Redditch; William Bates, B.A., Birmingham; J. H. Joy, M.D., Tamworth.

Report.—Dr. FOSTER, one of the honorary secretaries, next read the annual report, which stated that the Council had much pleasure in congratulating the twentieth annual meeting on the continued prosperity of the Birmingham and Midland Counties Branch of the British Medical Association. The number of members was now 311. During the past year, twenty-four new members had been elected, twelve had withdrawn from the Branch in consequence of removal from the neighbourhood, three had resigned, three had been struck off for non-payment, and nine members had died; viz., Dr. G. F. Evans, Mr. T. Ebbage (Leamington), Mr. Swain, Mr. C. S. Boswell (Redditch), Mr. Major Morgan (Lichfield), Mr. Moseley (Redditch), Mr. Waters (Coventry), Mr. T. C. C. Wheatcroft (Cannock), and Mr. A. Dodson. The past year had been an active one as regards the work of the Branch, six ordinary and two special meetings having been held. The attendance at the meetings has been large, and the interest of the papers read has called forth on several occasions valuable discussions. [Here followed a list of papers and other communications during the session 1873-4.]

The first mentioned paper (On Certain Unused but Valuable Means of Medical Education, by Dr. Fowler Bodington), read at the October meeting, was a thoughtful and able essay in favour of the utilisation of the numerous hospitals in the country districts for the purposes of medical education. The paper evoked an animated debate, which ended in the adoption of a resolution appointing a Committee of the Branch to consider the subject of medical education, especially with reference to Parliamentary legislation. This Committee, with Dr. Fowler Bodington as Chairman and Mr. A. Oakes as Secretary, drew up a report, which was presented to a special meeting of the Branch on April 9th. After being discussed at this and at a subsequent meeting, its further consideration was postponed till next session. The Council felt that the thanks of the Branch were due to the Committee on Education for their elaborate and suggestive report, which, when finally adopted, may form, it is hoped, the basis for further action by other Branches, and the Association itself, for the reform of the present system of medical education. The Council had much pleasure in recording the continued activity and usefulness of the Pathological and Clinical Section, and had also to report that the Microscopical Section had done valuable work during its first session. In accordance with the wish of many members, arrangements had been considered for a more intimate connection between the two sections as regards work and meetings. The Council trusted that, before the ensuing session, the plans might be adopted and the work of the sections more perfectly and conveniently organised. When such arrangements were completed, the Council would submit to the Branch a scheme for the amalgamation of the subscriptions to the Branch and the sections, in accordance with the resolution passed at the last annual meeting. The Council referred with pride to the fact, that the Hastings Prize Medal of the Association had again been carried off by a member of the Birmingham and Midland Counties Branch, the medal for 1873 having been awarded to Mr. Lawson Tait. The competition for the prize last year was especially honourable to the Branch, inasmuch as two of its members were the authors of the first and second essays. The merit of the second essay, moreover, was so unusual, that the Committee of Council of the Association, on the recommendation of the adjudicators, awarded a second medal to Dr. Edward Malins. The Council called attention to the greatly improved financial position of the Association, which was due in no small degree to the energetic and able business management. The members would be pleased to hear that the condition of the funds had enabled the Committee of Council to recommend to the annual meeting at Norwich the distribution of £200 in grants for the encouragement of original research. The growth of the Association during the past year had been considerable, and the formation of new Branches in districts in which the Association had had but few members was a specially favourable sign. The North Staffordshire Medical Society had converted itself into a new Branch, to be called the Staffordshire Branch. The Council offered this new Branch a hearty welcome, and trusted that it might be the means of bringing into the Association many members of the profession living beyond the reach of the Birmingham and Midland Counties Branch. Every new Branch could in this way add strength to the Association, and assist it in its great work of advancing the scientific and general interests of the profession throughout the kingdom.

Mr. WATKIN WILLIAMS, the honorary treasurer, read the statement of accounts for the past year, which showed that there remained in hand £51 6s. 1d., against £26 8s. 1d. last year.

The report and statement of accounts were unanimously adopted.

Dr. HINDS read a report from the Microscopical Section of the Association, which set forth principally that, though the attendance had not been numerous, the result showed the wisdom of the establishment of the section. The Committee considered that Birmingham ought not to be behind Manchester, Liverpool, and London in the cultivation of this branch of medical science. There were ample means to make it a real success. The report was received.

Votes of Thanks.—Dr. BODINGTON proposed, Mr. MANBY seconded, and it was carried unanimously, "That the thanks of the Branch be given to the officers of the Pathological and Clinical Section".

Dr. HINDS proposed, Dr. MACKEY seconded, and it was carried unanimously, "That the thanks of the Branch be given to Dr. Wade, the late chairman of the Microscopical Section".

Votes of thanks were also passed to the other officers of the section; to the retiring Council and representatives of the Branch; and to the honorary secretaries and treasurer.

President's Address.—The PRESIDENT delivered an address, which is published at page 101.

Mr. BAKER proposed that the warmest thanks of the meeting should be given to the Chairman for his valuable and interesting address, concurring in the views which had been advanced.

Dr. ARLIDGE seconded the proposition.

Mr. ERNEST HART, in supporting the motion, asked whether it was not desirable for the Branch to consider whether it should not take up the work of Mr. Dalrymple, and press forward the measure before the legislature, so as to get it practically treated in the next session of Parliament. The motion was carried unanimously.

Election of Officers for Ensuing Year.—The voting papers having been examined by Mr. J. Gardner and Mr. F. Underhill, the scrutineers appointed by the meeting, the following officers and Council were declared to be elected:—*President-elect:* W. F. Wade, F.R.C.P. *Hon. Secretaries:* T. H. Bartleet, M.B., and Balthazar Foster, M.D. *Treasurer:* T. Watkin Williams, Esq. *Members of Council—County:* J. T. Arlidge, M.D. (Stoke-upon-Trent), G. Fowler Bodington, M.D. (Kingswinford), A. J. Harrison, M.B. (Walsall), Vincent Jackson, Esq. (Wolverhampton), R. Bond Moore, Esq. (Wolverhampton), C. A. Newnham, Esq. (Wolverhampton), James Thompson, M.B. (Leamington), T. Underhill, M.D. (West Bromwich). *Town:* Alfred Baker, Esq.; Sampson Gamgee, Esq.; E. Malins, M.D.; H. Oakes, Esq.; O. Pemberton, Esq.; J. Russell, M.D.; J. Sawyer, M.D.; J. F. West, Esq. *Representatives of the Branch in the General Council of the Association:* Bell Fletcher, M.D.; Balthazar Foster, M.D.; Sampson Gamgee, Esq.; W. C. Garman, Esq.; J. S. Gaunt, Esq.; Vincent Jackson, Esq.; James Johnston, M.B.; Furneaux Jordan, Esq.; Edward Mackey, M.B.; Frederick Manby, Esq.; J. Manley, Esq.; James Russell, M.D.; Thomas Underhill, M.D.; W. F. Wade, F.R.C.P.; T. Watkin Williams, Esq.

Dinner.—The members afterwards dined together to the number of fifty-seven, Mr. W. C. Garman occupying the Chair, Dr. Wade, the President-elect, and Dr. B. Foster, the vice-chairs. Mr. Ernest Hart and Mr. F. Fowke were present as visitors.

SOUTHERN BRANCH: ANNUAL MEETING.

THE annual meeting was held at the Pier Hotel, Southsea, on Thursday, July 9th, under the presidency of Inspector-General SMART, M.D., of Haslar. Sixty members, from all parts of Hants, Dorset, and South Wiltshire, were present. In the evening, forty-two members dined together.

The President delivered an address.

Officers and Council.—The following were elected. *President:* W. R. E. Smart, M.D., C.B., R.N., Haslar. *President-elect:* W. C. Maclean, M.D., C.B., Netley. *Vice-Presidents:* J. P. Aldridge, M.D., Dorchester; F. J. Butler, M.D., Winchester. *Representatives in the General Council:* Heber Ellis, Esq., Poole; J. R. Kealy, M.D., Gosport; H. J. Manning, Esq., Salisbury; James Mouat, C.B., V.C., Portsmouth; J. Osborne, M.D., Southampton; W. F. J. Turner, M.R.C.P.Ed., Ryde. *Representative on the Parliamentary Bills Committee:* W. Case, L.R.C.P.Ed., Fareham. *Council of the Branch:* W. G. Bacot, M.D., Blandford; W. G. Davis, Esq., Heytesbury, Wilts; L. O. Fox, M.D., Winchester; W. H. Garrington, Esq., Southsea; J. W. M. Miller, M.D., Southsea; R. I. J. Stevens, M.D., Christchurch. *Honorary Secretaries of Districts:* Southampton—Theophilus W. Trend, M.R.C.P.; Bournemouth—P. W. G. Nunn, Esq.; East Dorset—C. H. W. Parkinson, Esq.; West Dorset—W. D. Vawdrey Lush, M.D.; Isle of Wight—W. F. J. Turner, M.R.C.P.; Salisbury—H. J. Manning, Esq.; South Hants—J. Ward Cousins, M.D. *Honorary Secretary and Treasurer*—J. Ward Cousins, M.D.

CORRESPONDENCE.

THREATENED DEATH FROM NITROUS OXIDE.

SIR,—As much may be learned by failure as by success; and there are especial reasons for asking you to permit me to record in your JOURNAL a recent case, in which I nearly lost a patient under the influence of nitrous oxide gas.

The patient was a lady about thirty years of age, and with all the outward signs of health. The gas was administered by a well known hospital surgeon. After a few inspirations, before she was unconscious, her pulse, which was under my fingers, entirely ceased to beat, whilst simultaneously her breathing stopped. In fact, she seemed dead, and we both exclaimed, "She is gone". Her tongue was pulled forward, and she was placed upon the floor, when we at once resorted to artificial respiration, as we then thought, with but little chance of restoration. Fortunately, our efforts were crowned with success, and in a few minutes there was a slight inspiration, after which breathing became gradually normal, though the patient did not recover consciousness for nearly half an hour. I have often seen unpleasant symptoms during the administration of nitrous oxide gas, but this is the worst case which I have met with.

Now for the *morale* to be deduced from this experience. Gas has been responsible for some few accidents in England, and for more in America, where it is sometimes administered very incautiously; but, as a rule, this anæsthetic is generally held to be *sine periculo;* and, acting upon this assumption, it is too often given by those who, not being surgeons, unwittingly take a great risk upon themselves. It is for the benefit of these gentlemen that I bring forward this case; for I know that men who are not members of the College of Surgeons are daily in the habit of administering this anæsthetic to their patients, and I have even heard of the services of a wife being called into requisition on such occasions—a story showing such a lack of professional dignity, that I would willingly assume it to be untrue. However, I know that it is commonly given by men lacking any surgical or medical qualification—

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even by men who do not possess the dental diploma of the College. Of course, such men act at their own risk; but I think that it is only fair to place the fact before them, that they incur the hazard of placing themselves in a very unpleasant predicament should anything untoward occur, for they would find it hard to persuade any jury that they were free from blame.

I have also heard of duly qualified men permitting others who are not qualified to administer anæsthetics whilst they operate. The evil here is, that the patient does not understand that the person called in to assist merely acts under the guidance of the operator, and consequently learns to despise the risk incurred, and to think that one man can administer ether, gas, or chloroform, as well as another; this conception being most unfair to those surgeons who make the administration of anæsthetics a specialty; whilst, more important still, the presence of the unqualified administrator would impede rather than aid any of those recuperative measures which must be so promptly adopted when accident occurs. And here I may say that, had we not both been qualified men and up to the emergency in the above mentioned case, I believe the life of the unfortunate patient would have been sacrificed. Again: many second-rate and unqualified dental practitioners, who are in the habit of giving gas themselves, either for the sake of economy or as an inducement to patients to be "operated upon", as I have seen it advertised, "by the new painless method", place "*surgeon*-dentist" on their door-plates—a title which, to my certain knowledge, deceives even the most intelligent, and thus indirectly serves to bring odium upon the surgical profession; for I have been innocently asked how it was possible that this man or that man, being so uneducated, could have passed an examination as a surgeon; and the questioner seemed astonished when I replied that the assumed title by no means implied a surgical diploma. I trust that the time may not be far off when every dentist will be of necessity a surgeon; but until then the public ought to be warned that "surgeon-dentist" emblazoned outside a door or upon a lamp does not, as a rule, imply any superior education whatever, but rather the reverse. But this is foreign to the subject and to the first object of this letter, which is to impress upon those members of the dental profession who are not fully qualified that anæsthetics, of whatsoever kind, should never be administered under any circumstances save by duly qualified practitioners.

I am, etc., S. HAMILTON CARTWRIGHT.

Old Burlington Street, July 21st, 1874.

THE EDINBURGH CHAIR OF PHYSIOLOGY.

SIR,—I believe your leader of last week on this subject will meet with general approval, and hope will have a salutary effect. As a physiologist interested in the progress of the science, but having no personal views in respect to the Edinburgh Chair, I have read with some regret Dr. Pettigrew's pamphlet of testimonials, which strongly exemplify the justice of your views.

Dr. Pettigrew has done some admirable anatomical work, with which, it cannot be doubted, the electors to the Edinburgh Chair of Physiology are fully acquainted; but it is doubtful how far this can be urged as indicating special qualification for filling the most important Chair of Physiology in the United Kingdom. In this pamphlet, he is led, by the principle of self-advocacy involved in the system, firstly to endeavour to give an impression as to his familiarity with physiological research which is not just, and, in the second place, to make capital out of favourable notices of his published works—notices for the most part published in the daily newspapers and other journals entirely wanting in scientific authority, or written, as I can vouch, by personal friends and former fellow-students. As to the first matter, Dr. Pettigrew states:

"*Opportunities for Acquiring the Art of Teaching.*—(*a*). I have visited the leading Professors and Universities in France, Germany, Austria, Belgium, and other parts of the Continent, for the express purpose of ascertaining their peculiar modes of teaching. I have in especial examined the physiological laboratories of Paris, Berlin, Vienna, Leipsic, Brussels, Bonn, Heidelberg, Munich, Prague, Würzburg, etc., etc."

It is only in writing an application for a vacant appointment that a man of Dr. Pettigrew's stamp would be inclined thus to represent a running visit made in a summer's vacation as giving him an acquaintance with the methods pursued in the physiological laboratories of the Continent. A little further on in the same document, we find the statement in italics, that Dr. Pettigrew made and preserved, under Goodsir, *nearly two hundred physiological preparations.* Why physiological, when it is perfectly certain that they were anatomical? The various other details as to Dr. Pettigrew's proceedings as a student—the number of his classes, of his lectures, examinations, etc.—thoug not containing the *implicatio falsi*, as is too often the case in such documents, are in that degree of bad taste which can only be excused by the supposed exigencies of the system of candidature which we have above denounced. If Dr. Pettigrew had quoted the reviews of his writings, especially those on flight, from all the leading scientific journals, a very different story would have been presented. As a matter of fact, it is well known to physiologists that Dr. Pettigrew drew certain physiological conclusions from morphological data touching the mechanism of flight. These conclusions were partially correct, but in most important matters erroneous. It was Professor Marey of Paris who, by direct physiological experiment, by methods which were purely experimental, demonstrated the true movements of the wing in flight. Dr. Pettigrew, as an *anatomist*, arrived at incorrect conclusions. A *physiologist* was needed to investigate the problem adequately; and Professor Marey, whilst unacquainted with Dr. Pettigrew's writings (as he has remained), made the investigation. These researches on flight, so far from supporting Dr. Pettigrew's claims to a Chair of Physiology, serve to show that, although a clever anatomist, he fails in dealing with physiological problems.

Nothing but the pressure of the testimonial system could have given birth to such a pamphlet as this.

I am, etc., A PHYSIOLOGIST.

THE PATHOLOGICAL EXAMINATION AT THE COLLEGE OF SURGEONS.

SIR,—In your impression of last week, a letter from Mr. Flower opens with the remark, "A small work has recently been published, entitled *A Guide to the Examinations at the Royal College of Surgeons of England*, the intention of which appears to be to frustrate, as far as lies in its power, the main object for which the Council of the College has long been striving in instituting– practical examinations". As the author of that work, will you allow me to say that no such intention as that suggested was ever contemplated by me, and, indeed, is entirely foreign to my professional sympathies. My object—as plainly stated in the introduction to the work—is, in the first place, to set forth what the College, "as an examining board, has done, and is doing, to sustain and extend the educational character of the profession, and to protect the just rights of the public in regard to the qualifications of men who are licensed to practise surgery". On the other hand, and, consequently, "to all who are preparing, or are about to prepare, for the professional examinations at the College, a proper knowledge of the nature and direction of such examinations cannot fail to be useful". Candidates for the diploma of Member or Fellow, having had their attention directed to the whole course of examination, as to the series of anatomical and pathological preparations, the surgical instruments and apparatus, and the examination papers, will thus be led to acquire that *kind* of knowledge—practical or otherwise—which the regulations of the College demand; and I submit, therefore, that a Guide to that end cannot in any way be designed to frustrate the object which the Council has long had in view. I am, etc., FREDERICK J. GANT.

Connaught Square, S.W., July 20th, 1874.

THE TREATMENT OF OUT-PATIENTS.

SIR,—In commenting a few weeks since on two cases of maltreatment of out-patients at St. Bartholomew's Hospital, you stated your belief that there was no ground for thinking that St. Bartholomew's was any worse in this respect than any other metropolitan hospital. Allow me to corroborate this view of the matter by referring your readers to an account, published in the *Lancet* of Saturday last, of a patient suffering from caries of the cervical vertebræ, who, having twice applied at the out-patient room of St. Thomas's Hospital, and having been twice rejected as a case not sufficiently urgent to be admitted, went away and died within twenty-four hours of his second visit to the hospital, his disease never having been diagnosed during his lifetime, and the fatal result having been probably accelerated by friction with a liniment apparently intended to cure some swollen glands in his neck. I am quite unable to suppose that any of the surgical staff at St. Thomas's could have failed, on examination, to recognise the true nature of the case, in which, on *post mortem* examination, it was found that "the occipito-atloid articulation of the left side was carious and entirely disorganised, and occupied by an abscess-cavity, which had probably burst at the point where the odontoid process had perforated the dura mater"; and it is not a little remarkable that, in the report of the case furnished to your contemporary by the surgical registrar, none of the staff is credited with even a "nominal responsibility" for the case.

An out-patient's card, relating to a somewhat similar case which occurred at the Middlesex Hospital, is now lying before me, in which a patient applied twelve days before her death to that institution. Her disease is put down as "cough", and the treatment consisted of Haustus Scillæ compositum ter die. When seen two days before her death by a private practitioner, she was in the last stage of phthisis accompanied by dropsy, and her friends were quite amazed at being told that she would probably not live many days.

Another out-patient's letter in my possession shows that a man suffering from "hæmoptysis, with signs of hæmorrhage in right apex", who was ordered gallic acid and tincture of opium on his first visit to University College Hospital, was, on his second visit, a week afterwards, ordered mistura quinæ cum ferro, probably by one of the students, with a result, as regards the hæmoptysis, which may be imagined.

I am, etc., H. Nelson Hardy.

21, Fitzroy Square, W., July 15th, 1874.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

At a special Council meeting of this Association held on Thursday, the 16th, the following propositions were submitted and unanimously agreed to.

That, in the judgment of this Council, it is desirable that district Poor-law medical officers should be health-officers of first instance in their respective Poor-law districts; that all reports of insanitary conditions made by them in the performance of such duty should be forwarded to a superintendent health-officer acting as such over a considerable area, such as the whole or part of a county, with whom should rest the authority of putting the law in action.

That the salaries of Poor-law medical officers should be paid wholly from the Consolidated Fund, instead of partially, as at present.

That the dispensary system of medical relief should be extended to provincial towns and rural districts; the expenditure in drugs, surgical and other appliances, with rent, etc., of dispensary buildings, being left to be defrayed from local sources.

That the superannuation of Poor-law medical officers should, under certain statutory restrictions, be in future compulsory, instead of permissive.

That the imposition of additional duties, whether sanitary or otherwise, and notably the recent requirement to examine and certify as to the condition of children for the School Board, without any remuneration, should be resisted; and that every effort be made to secure reasonable payment for such extra services.

It was also moved, and unanimously agreed to, that Dr. J. Rogers, Chairman of the Council, should attend the forthcoming annual meeting of the British Medical Association at Norwich, for the purpose of submitting the foregoing resolutions to its consideration, with the view of securing its support.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Taunton Rural Sanitary District.—Dr. H. Alford's report commences with certain general remarks as to the geology, the water-supply, the means of drainage and sewerage, the system of excrement disposal, and the dwelling accommodation of the district; and it subsequently refers in much greater detail to those conditions as they are found to prevail in each village, and especially where cases of infectious diseases have prevailed. The water-supply is in many cases fouled by excremental refuse, owing mainly to the pollution of streams and to the soakage of privy and cesspool contents into wells. The report shows how these conditions have, in certain instances, been associated with the existence of enteric fever; and Dr. Alford urges that this pollution of soil and of water should be prevented by means of efficient drainage and the adoption of the dry-earth system of excrement removal. The dwelling accommodation in some parts of the district is evidently of the worst description; the premises are dirty and neglected; and the cottages and huts are bad structurally, and, owing to overcrowding, quite unfit for human habitation. The mortality of the district during the past year has not been high; and the comparative freedom from fatal cases of infectious diseases is probably in a great degree owing to the surveillance and care exercised by the medical officer of health, who states that, on every appearance of any such disease, the premises have invariably been disinfected and cleansed, and their sanitary condition has often been otherwise improved. Action of this character is extremely valuable, and we regret that it is not invariably carried out in all sanitary districts; for it often happens that means of disinfection are neglected because the medical officer of health wishes to avoid any so-called interference with the patients of another practitioner, whereas he should deem it one of his first duties to see that such steps are taken in every case of infectious disease, if not under the guidance and advice of the practitioner attending on the case, then as the result of his own action as the responsible officer of the sanitary authority.

Poor-Law Districts.

Sir,—In the abstract of laws affecting the medical profession attached to Churchill's *Directory*, I find this sentence. "As a general rule, the guardians may not assign to any medical officer a district which exceeds the area of 15,000 statute acres, or which contains a population exceeding 15,000 persons." I shall feel obliged if you will inform me—

1. In what Act or Order this rule is contained?
2. What circumstances would be allowed as an exception to this "general rule"?
3. Could a practitioner holding a district of 14,000 acres in one union be appointed parish medical officer to a district of 5,000 acres in an adjoining union, if another practitioner living in the same town as himself, and in every way qualified, were a candidate for the appointment?

If you can reply to these queries in your answers to correspondents I shall esteem it a favour. I enclose my card, and beg to subscribe myself

July 14th, 1874. Litmus.

*** "Litmus" will find that Article 159 of the Consolidated Orders of the Poor-law Commissioners, now Local Government Board, directs that the Guardians shall not assign to any medical officers a district which exceeds in extent the area of 15,000 acres, or which contains a population exceeding the number of 15,000 persons. Article 160 provides that if it be impracticable to comply with this order, then at the time of the appointment of the medical officer a special minute of the circumstances shall be entered on the usual record of the Guardians' proceedings, and that a copy of such minute shall be forwarded to the Local Government Board for their consideration, and that, if the Local Government Board approve, then in such case the Guardians may assign such district to such medical officer.

That numerous instances of double appointments (similar in character to that described by Litmus) exist, there cannot be any question of a doubt. Thus Dr. J. Rogers states that there are 627 districts which are held by 291 medical officers; that there are 665 districts which exceed 15,000 statute acres, and 205 districts which exceed 15,000 persons. In fact, as this gentleman has asserted, the Local Government Board, in their entire ignorance of the value of efficient medical relief, has never refused its sanction to any medical appointment made by a Board of Guardians, however much such appointment may be in contradiction of their own general orders.

MILITARY AND NAVAL MEDICAL SERVICES.

MEDICAL SERVICES OF THE ARMY AND NAVY.

Sir,—As you have been kind enough to call for information regarding affairs in the above departments, and have given us every assistance and support, for which all ranks cannot be too grateful, I think it the bounden duty of individual officers to make public, through the medium of your widely circulated Journal, the grievances and disadvantages under which they labour; more especially now, because announcements are appearing that examinations will be held on August 10th for vacancies in the Army and Naval Medical Services, so that intending candidates may be forewarned of the grievous disappointments they will experience if success attend their efforts at these examinations; and, while such candidates are forthcoming, I fear we can hope for no mitigation of our wrongs.

Intending candidates have only to devote an hour of their time to reading the correspondence that has recently appeared in your columns, and also the *Broad Arrow*, to see that the Army and Naval Medical Services are in a deplorable state, and that their respective conditions may be described as bad and worse; and that even a dispensary in Ireland (not to speak of surgeoncies to the several lines of steamers: assistancies, *pro tem.*, till the conditions of these services are ameliorated, which they must of necessity be if they cannot get candidates) is, comparatively speaking, independence and comfort to what they may expect if they enter the army or navy—I don't speak of the Indian Medical Service, for its advantages are not to be questioned; and, indeed, qualified young surgeons cannot do better than compete for these vacancies. Not so the Army or Naval Medical Services. Here they have to expect certainly ten shillings a day to commence with; but, against this, they may calculate on being knocked about at the shortest notice, belonging to neither one regiment nor the other, and having to pass half their service in the East or West Indies with inadequate pay and sundry other disadvantages.

The fact is, that, until there is a return to the regimental system (when every medical officer had a happy home, if he chose to make it one for himself), earlier and better retirement, and more certain and rapid promotion (which has been getting more tardy every year, coming up now to fifteen and half years' service before the surgeon can expect to be promoted to surgeon-major), are granted, there can be no contentment, zeal, or efficiency.

The medical officers of the army are naturally anxious to know what the present Director-General is doing to obtain these ameliorations of their state; for, of course, as their chief, they have every right to expect that he will exert himself to the utmost of his power on their behalf, inasmuch as it cannot be a satisfaction to represent such an important department, of which almost every member is complaining of discomfort and hardship. I am, etc.,

July 1874. SURGEON, A.M.D.

NAVAL MEDICAL APPOINTMENTS.

STAFF-SURGEON GEORGE J. WILLES, M.D., from H.M.S. *Agincourt*, to H.M.S. *President*, *vice* Watson (period of service expired).

Staff Surgeon Fysher Negus, from half-pay, to H.M.S. *Agincourt*, *vice* Willes.

Surgeons George Bolster, William Inman, M.D., M. D. Hurlstone, and H. Macdonnell, to be Staff-Surgeons (second class) in H.M. Fleet.

Deputy Inspector-General William Macleod, M.D., has been reappointed to the Royal Naval Hospital, Yarmouth.

Inspector-General John Davidson, M.D., C.B., has been appointed Honorary Physician to the Queen, *vice* Sir Alexander Nisbet, Knt., deceased.

OBITUARY.

RICHARD JEFFERSON, M.R.C.S., L.S.A.

MR. RICHARD JEFFERSON, after a course of study at Guy's and St. Thomas's Hospitals, was admitted a Member of the College of Surgeons in 1824. Soon afterwards, he began practice in Market Weighton, East Yorkshire, where he remained until the end of his life. So high was his sense of duty, and so great his interest in his work, that he never took a holiday during the whole of that period, fifty years; and, until the last eighteen months, he was never incapacitated from work for a single day through illness. About two months ago, he had an attack of jaundice, the effects of which he was unable to shake off. He died on June 27th, aged 74.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 16th, 1874.

Barber, Edward, Sheffield
Ford, Robert Giles, Suffolk Street, Commercial Road
Lidderdale, James, Lock Hospital
Thomas, Herbert Henry, Queen's Crescent, Haverstock Hill

The following gentleman also on the same day passed his primary professional examination.

Taylor, James, Bristol School of Medicine

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABERDEEN, City of—Public Analyst: 2s. 6d. to 10s. 6d. per analysis, and £25 for fitting out Laboratory.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications, 10th August, to Sir W. M. Muir, Director-General.

ASTON UNION—Medical Officer and Public Vaccinator for the Aston Road District: £80 per ann., and fees. Applications, 28th inst., to John Lumby, Clerk.

ASYLUM FOR IDIOTS, Earlswood—Assistant Medical Officer: £150 per annum, board, and apartments. Applications, 29th instant, to the Secretary, 36, King William Street, E.C.

BALLACHULISH SLATE QUARRIES—Medical Officer: £200 per annum, guaranteed. Applications, 1st August, to Mr. Gardener, Bank of Scotland, Ballachulish.

BRIERFIELD URBAN SANITARY DISTRICT, combined with several others—Medical Officer of Health: £500 per annum for three years. Applications, 27th instant, to A. Stanley Dean, Clerk to the Burnley Rural Sanitary Authority.

BRIGHTON AND HOVE DISPENSARY—Physician-Extraordinary. Applications, 3rd August, to Somers Clarke, Honorary Secretary.

BRIGHTON AND HOVE PROVIDENT DISPENSARY—Surgeons for Districts 3 and 5. Applications, 4th August, to J. Dennant, Honorary Secretary.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary: £80 per annum, increasing to £100, board, lodging, etc. Applications, 4th August, to George Fell, Solicitor.

CAPE COPPER MINING COMPANY—Assistant Medical Officer: £150 per annum and lodgings, and free passage out and home. Applications to the Secretary, 6, Queen Street Place, E.C.

CERES, Fifeshire—Parochial Medical Officer and Public Vaccinator: £23 per annum, and fees; and £42 per annum as Medical Officer of the Adamson Institution. Applications, 31st instant, to Mr. Younger, Inspector of Poor.

CITY OF GLASGOW FEVER HOSPITAL—Physician Superintendent.

DOWNHAM UNION—Medical Officer for District No. 6: £50:5:8 per annum.

DOWNPATRICK UNION, co. Down—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Strangford Dispensary District: £100 per annum, and fees. Applications, 13th August, to Samuel Secd, Assistant Secretary, Ballylena, Strangford.

DRIFFIELD UNION—Medical Officer and Public Vaccinator for the Fordingham District.

DURHAM UNIVERSITY COLLEGES OF MEDICINE and PHYSICAL SCIENCE, Newcastle-upon-Tyne—Professor of Biology combined with Physiology: £450 per annum, and a portion of fees. Applications, 15th August, to T. Wood Bunning, Secretary to College of Physical Science.

EAST LONDON HOSPITAL FOR CHILDREN, Ratcliff Cross—Assistant Visiting Physician. Applications, 30th instant, to Ashton Warner, Secretary.

EVELINA HOSPITAL, Southwark Bridge Road—Registrar and Chloroformist: £20 per annum.

GLAMORGANSHIRE LUNATIC ASYLUM, Bridgend—Medical Superintendent.

GLENTIES UNION, co. Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Carrick Dispensary District: £100 per annum, and fees. Applications, 28th instant, to Samuel Cassidy, Honorary Secretary, Bruckless House, Donegal.

GRIMSBY URBAN and PORT SANITARY DISTRICTS—Medical Officer of Health: £50 per annum.

HENDON UNION, Middlesex—Medical Officer and Public Vaccinator for the Weald District: £30 per annum, and fees. Applications, 29th instant, to W. A. Tootell, Clerk, Edgware.

INDIAN MEDICAL SERVICE—Fourteen Surgeons. Applications, 10th August, to T. P. Pears, Major-General, Military Secretary.

LAMBETH PARISH—Medical Officer for No. 1 District: £80 per annum.

METROPOLITAN FREE HOSPITAL—Assistant-Physician. Applications, 4th August, to George Croxton, Secretary.

MOHILL UNION, co. Leitrim—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rynn Dispensary District: £120 per annum, and fees. Applications, 27th instant, to Francis Gearty, Honorary Secretary, Finnaloughta, Dromod.

NEWPORT (Monmouthshire) INFIRMARY and DISPENSARY—Resident Medical Officer: £100 per annum, furnished lodgings, board, etc. Applications 5th August, to E. W. Willey, Secretary.

NORTH DARLEY URBAN SANITARY DISTRICT—Medical Officer of Health. Applications, 4th August, to S. Mills, Clerk.

OWENS COLLEGE, Manchester—Professor of Anatomy: minimum emoluments, £500 per annum. Applications, 1st August, to the Council, under cover to J. Holme Nicholson, Registrar.

ROYAL NAVAL MEDICAL SERVICE—Surgeons. Applications, 6th August, to A. Armstrong, Director-General.

RHYMNEY IRONWORKS—Out-door Assistant.

STAFFORDSHIRE GANERAL INFIRMARY, Stafford--House-Surgeon and Secretary: £100 per annum, board, lodging, etc. Applications, 1st August, to W. H. Dudley, Secretary.

TORBAY INFIRMARY, Torquay—Dispenser: £50 per ann.,' board and lodging.

WESTERN GENERAL DISPENSARY—Dentist. Applications, 25th instant, to W. Kimpton, Secretary.

WEST LONDON HOSPITAL, Hammersmith—House-Surgeon: £70 per annum, furnished apartments, etc. Applications, 27th instant, to T. Alexander, Sec.

WEST SUSSEX, EAST HANTS, and CHICHESTER GENERAL INFIRMARY and DISPENSARY—Assistant House-Surgeon: £20 per annum, board, lodging, etc. Applications, 5th August, to Dr. Macpherson, Secretary.

WIGTON UNION, Cumberland—Medical Officers and Public Vaccinators for the Aspatria and Allonby Districts: £14 and £13 per annum, and fees respectively. Applications, 28th instant, to W. Mandnell, Clerk.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

COLEMAN, Henry W., M.R.C.S.Eng., appointed Surgeon to the Farnley Iron Works, Farnley, near Leeds.

FAIRCLOTH, John M. C., M.D., appointed Physician to the General Infirmary, Northampton, *vice* *J. H. Webster, M.D., resigned.

HUGHES, Wm. Hugh, M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer of Health for the Urban Sanitary District of Ashton-under-Lyne. £50 per annum: Area, 1,391 acres; population, 31,985.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

ALLEN.—On July 16th, aged 27, Susanna, wife of Bryan H. Allen; M.D., of Hastings.

DRUITT.—On July 18th, at Wimborne Minster, in her 83rd year, James, widow of Robert Druitt, Surgeon of that place, and daughter of the Rev. James Mayo, Master of Queen Elizabeth's Grammar School at Wimborne, and Vicar of Avebury.

MARRIAGE.

REID—WATSON.—At Cutts, Aberdeen, on the 21st instant, by the Rev. W. Anderson, Alexander Reid, M.A., M.D., Canonbury Park, London, N., to Annie, second daughter of the late Robert Watson, builder.

DR. JOHN H. WEBSTER.—At a Court of Governors of the Northampton General Infirmary, specially convened for the election of a Physician, it was resolved—"That this Court cannot separate without cordially recognising and gratefully acknowledging the valuable services of Dr. Webster during the nineteen years that he held the office of Physician to this Institution."

UNIVERSITY COLLEGE HOSPITAL.—Messrs. Edwin Bedford and Charles Jellicoe, the executors of the will of the late Miss Mary Gray Ratray, have given the sum of £500 to University College Hospital, out of the funds left for their disposal to charitable institutions.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

The Annual Meeting.

Members proposing to be present at the Annual Meeting in Norwich are requested to communicate their intention without delay to Dr. Beverley. A form for the purpose will be found in the advertisement pages of this week's Journal.

Infant would be obliged to any reader who would refer him to any published rules (for popular use) respecting the prevention and treatment of diarrhœa in children. Some such rules, issued by the New York(?) Board of Health, were noticed in one of the medical reviews a few months ago. The reference is wanted.

An Intending Member.—Candidates for the membership of the Association whose applications and certificates, properly filled up, have been sent to the General Secretary, will be entitled to attend the meeting at Norwich. Gentlemen desirous of becoming members must send in their applications and certificates without further delay.

The Rev. Dr. Bell requests us to intimate that he has not had time to go into the necessary details for perfecting his proposition "for bringing the matter of electing one Council only for the management of the affairs of the Association before the Annual Meeting of 1874. He hopes to do so for the next Annual Meeting of 1875."

The Vacant Appointment for a Surgeon.

F.R.C.S. writes to us that a well known hospital surgeon, whose name he mentions, is believed to be a candidate for the "vacant appointment" (vacant now for two years) at the Royal Orthopædic Hospital, Regent Street. We must, however, decline to couple any surgeon's name with such a candidature under existing circumstances, unless on his own authority. We have heard of two young assistant-surgeons during the last few months who were persuaded to consent to become candidates; but both were advised subsequently by their professional friends that they would best consult their professional reputation, and show a suitable sense of what was due to their common profession, by declining to be candidates for any office at the Orthopædic Hospital until the Committee had set itself right with the profession; and they both withdrew.

Necropsies at Coroners' Inquests.

Sir,—On reading the report of De Groof's inquest in the daily papers, I formed a very high opinion of the foreman's intelligence, in demanding a *post mortem* examination even in this exceptional case. It is high time that our profession fully exposed the utter farce that an inquest represents, unless invariably backed up by a *post mortem* examination. My experience for the last twelve years in hospital practice has conclusively convinced me that coroners deprive their court of the most reliable evidence, by hesitating to order a *post mortem* examination in every instance.

By adopting the broad and intelligent rule of invariably holding a necropsy in inquest cases, we, as medical men, shall be spared many a collision with the coroner; shall hear less nonsense from the ratepayers that *post mortems* are useless: we shall be spared some painful exhibitions of economic rivalry; and feel conscious that our steps are directed in the path of orderly truth.

I am, etc., Richard Davy, Surgeon to the Westminster Hospital.
London, July 1874.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 37, Great Queen Street, W.C., and not to the Editor.

South-Eastern Branch of the British Medical Association.

Sir,—The President of the South-Eastern Branch of the British Medical Association mars his address with signs of animosity against one of the medical charities of Brighton. He enumerates the institutions of the place, but instead of naming the Children's Hospital properly with the rest, he merely observes (speaking of a ward for children just opened in the County Hospital), "Had it only been instituted a few years ago. it would have saved the Brighton public the supposed necessity of having to support a separate hospital for children". Now, it is inconsistent with medical etiquette, and with the duties of a President, who is bound to be impartial, to take this tone from the chair; yet, though various remarks and objections have been made in Brighton about it, the words are published unaltered in your pages, whereby it is clear their author is not capable of perceiving their impropriety. They cannot hurt the hospital, but they damage the profession, lowering the same before the public by this touch of professional jealousy, also within itself by the bad example thus set in a local President's address. It is for the credit of the British Medical Association, which your Journal so ably represents, as well as for the good of the profession, that this should be discountenanced. To no purpose is a fanfaronade of fine words almost in the same breath. By deed, not word, must the unity and nobleness of the medical calling be proved. The President's duty is not to touch local animosities. if there be any, but to do what he can to raise the tone and position not only of what he presides over, but also of the whole profession. Nor should he so act as to dispose local medical men to stand aloof from the South-Eastern Branch, which, though increasingly flourishing, does not include all who ought to belong to it. I am, etc.,

Brighton, July 20th, 1874. A Governor of a London Hospital.

Aide-toi, et Dieu t'aidera.

Sir,—I trust you will allow me space to express a hope that the services of the executive of the Poor-law Medical Officers' Association will meet with the recognition of medical officers throughout the country, and that they will now make an effort, and stand by those who have watched and worked on their behalf for years past. Respecting the subjects of the proposed petitions, it must be admitted that having medicines supplied by the medical officer is a most unsatisfactory arrangement—meaning as it does that every case is a tax upon him, varying in some instances from many shillings to some pounds, and, examined backwards, being a premium for neglect.

I need not say much on the subject of pensions: those who, in the pride of health and strength, may have been careless of their own interests, will surely find the day when both will fail. For the rest, it has been truly said "that if a man do his duty in our profession, he has not time to enrich himself"; whilst, on the other hand, the wealth and resources of the country are to be recognised at every turn. I am, etc., Lam-Aleph.

Determination of Casts in Urine by Inspection.

Sir,—Whilst experimenting with a test recently suggested, I found that casts in the urine could be detected by the unaided sight, and fished out singly with a pipette for further inspection under a microscope, and this under circumstances when the ordinary method would not discover them, from their number being too small; it being necessary to slightly agitate the urine, and to warm it sufficiently to keep the urates dissolved. There is generally a quantity of some sort of fibre derived from bedding, etc.; but this is distinguished by the particles having a more definite outline, and being of smaller calibre than the casts which have a gelatinous appearance.

As this method is not mentioned in works on the subject, I presume it is not generally known, and I should be obliged for further information as to its clinical value, my own experience being slight and confined to granular casts.

July 18th, 1874. I am, etc., Walter Lattey, L.R.C.P.Lond.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, July 20th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. George Johnson, London; Mr. R. S. Fowler, Bath; Dr. G. E. Shuttleworth, Lancaster; Dr. Stephen, Fettercairn; Mr. John Latham, Sandbach; Mr. Lawson Tait, Birmingham: Dr. Hawkes, Alton; Dr. A. B. Steele, Liverpool; Mr. J. M. Morris, London; Dr. Calderwood, Edinburgh; Dr. Wells, Reading; Staff-Surgeon W. Wilson, R.N.; Dr. R. T. Wright, Lahore; Dr. Drysdale, London; Dr. Edis, London; Dr. Russell, Glasgow; Mr. Crocton, London; Mr. W. Lattey, Southam; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Lam-Aleph; Dr. Joseph Bell, Edinburgh; Our Glasgow Correspondent; Dr. W. Finch, Colchester; Dr. D. Goyder, Bradford; Dr. J. Batty Tuke, Bradford; Dr. C. Royston, London: Mr. Wickham Barnes, London; Mr. R. S. Pettrydridge, Bodmin; Mr. G. C. Coles, London; Mr. A. E. Barrett, Lynn; An Intending Member; Mr. T. H. Bartleet, Birmingham; Our Edinburgh Correspondent; Dr. E. Haward, London; Mr. S. H. Cartwright, London; Dr. John Brunton, London; Dr. Warner, Birmingham; Dr. Rugg, London; Dr. Moore, Dublin; Dr. V., Goole; Dr. Edwards Crisp, London; Our Dublin Correspondent; Dr. J. Matthews Duncan, Edinburgh; Dr. Ogle, London; Mr. F. J. Pickles, Leeds; Dr. Russell, London: Dr. Nathan Allen, Massachusetts; A Physiologist; Dumbledore; Mr. J. F. Barnes, Liverpool; Mr. Eames, Haslar; Dr. Pettigrew, Edinburgh; H. T. A., Horsham; etc.

AN ADDRESS
ON
MEDICAL EXAMINATIONS,
ETC.

Delivered at the Annual Meeting of the Metropolitan Counties Branch, July 20th, 1874.

By T. B. CURLING, F.R.S.,

Consulting Surgeon to the London Hospital; President of the Branch.

GENTLEMEN,—In taking the chair for the first time, as your President, I must tender you my hearty thanks for the honour you have conferred upon me, in placing me in this distinguished position. It will be my endeavour to secure your confidence and support, by strict attention to the duties of the office, and by all the efforts in my power to promote the utility and influence of this Branch of the Association.

It is not my intention to occupy your time by any lengthened observations, but I must not depart from the usual custom of your President addressing some remarks to the members on entering on the duties of his office. The Metropolitan Counties' Branch of the British Medical Association was established in 1852. In 1873, the number of its members was nearly five hundred; and this year, a large addition having been made during the meeting of the parent Association in London, the number exceeds six hundred, so that this Branch is, I believe, the largest one now affiliated to the Association, and is really a very considerable society.

Since my nomination as your President-elect, I have been led to inquire what objects the Metropolitan Counties' Branch can best promote for the common benefit of its members and the general welfare of the Association. In the provinces the Branch societies do excellent work, not only in cultivating mutual good feeling and an interchange of courtesies amongst its members, but also in the diffusion and advancement of knowledge by the reading of papers and discussions on medical topics, and in the promotion of benevolent objects. It must be admitted that any addition to the numerous societies instituted in London for these various purposes, is now little needed. It may, indeed, be questioned whether the societies for the improvement of medical knowledge are not already too numerous. They present an array, not only sufficient to meet the wants of practitioners in all parts of the metropolis and its suburbs, but also the needs of those who devote themselves to special departments of medical science and practice. Most of these societies are well supported, and some have achieved a remarkable success. It is not easy therefore to discover an open gap or a vacant space for us to step in and fill. I must claim, however, for the Metropolitan Counties Branch during its existence, good work done in the direction of public medicine, and in relation to public health; and it must be borne in mind that our Branch is the only *general* medical body in the metropolis for the discussion of those great questions which concern both the profession and the public; and it is ready for action now, as in former times, whensoever its services may be required.

A recent movement in the provinces leads me to remark that the addition of the Metropolitan Counties Branch to the Parent Association, and the two grand gatherings of all the Branches in London, have tended, and I hope will still further tend, to secure a community of interests, to dissipate a provincial feeling, if such still linger, that the metropolitan members of the profession have views and objects apart from those members dwelling in the great towns of England and in the country. There ought to be—there is—no such antagonism. There is no real ground for supposing that the leading practitioners in London, and the members of the Councils of the two chief medical corporations, most of them belonging to our Branch, do not regard the interests of all members of the profession alike; or that they are otherwise than desirous of maintaining the reputation, and increasing the efficiency, of the schools of medicine in all parts of the country. A late president of the Association, a provincial surgeon of high repute,* in his address at Birmingham, referred, in eloquent language, to the advantages of union and nationality, and gracefully acknowledged the liberal and enlightened views of the metropolitan members.

It has long been felt, by all who have bestowed any attention on medical education, and notably by the General Council of our Association, that the number of examining bodies in the United Kingdom entitled to confer diplomas and licenses, qualifying for registration and for practice, is a serious evil, discreditable to the profession and injurious to the public. The course of education, the time required for its pursuit, the character and quality of the examination tests differ considerably in the nineteen licensing bodies. Candidates rejected as incompetent by one examining board, have succeeded in passing another less stringent in its requirements. The General Council of Medical Education, established in 1858, though fully alive to these serious evils, have only limited power to deal with them and to correct them. In London, a student, in order to obtain certificates of fitness to practise medicine and surgery, usually passes the examinations of two distinct boards. A candidate intending to limit his practice to medicine or to surgery, if he pass only one of these examinations, has submitted to an insufficient test of qualification; for it is universally acknowledged that a student, no matter what department of practice he is destined to follow, ought to acquire a competent knowledge of all branches of medical science and practice. Some years ago, attempts were made by the two chief medical corporations to unite, with the view of partially removing these anomalies, but their efforts were not successful. In 1869, a move, which originated in the Council of the College of Surgeons, was cordially met by the authorities of the College of Physicians; and the two corporations have since been working in harmony and perseveringly, with the view of instituting a conjoint examination scheme. The English universities have all joined in promoting this scheme; and, with a self-denial which redounds greatly to their honour, have shown themselves ready to forego some of their rights and privileges for a common good. The Society of Apothecaries is now moving in the same direction. Certain clauses in the charters of two of the medical corporations, and of one of the Universities, have given rise to difficulties and delay in the formation of the regulations for working the scheme. Some of these difficulties have been overcome by the Legislature, and it is expected that all obstacles will shortly be removed, so as to enable the scheme to be put in operation, due notice being given to prevent its effects from being retrospective. Had the Medical Bill of 1870 passed into law, the difficulties and delay, which have since arisen, would have been prevented; and I fully join with my predecessor in this chair, in lamenting the opposition which was offered to it, and which led to its withdrawal, quite agreeing with him that we then sacrificed a great good—what is really important for what is unimportant—for what, if gained, would have been a source of trouble and expense, without any corresponding advantage.

A Committee of one of the Branches of our Association, adopting a proposition advocated in one of the medical journals, have recently recommended urging upon the legislature the institution of a State examination for all members entering the medical profession. The only reasonable ground for supporting such a proposition would be the failure of the conjoint scheme, or the incompetency of the examining boards appointed by the corporations. By far the largest number of candidates entering the profession are examined at the College of Surgeons in anatomy, physiology, pathology, and surgery. Now, I can refer with confidence, and I may add, as an examiner, with some pride, to the favourable reports of all visitors to these examinations; of the teachers in the London and provincial schools; and of eminent foreign professors who have assisted at the examinations, and have borne testimony to their efficiency and their fairness. Huxley has justly remarked that "examination is an art, and a difficult one, which has to be learned like all other arts". But, in practical examinations like those at the College of Surgeons, there is something more even than skill in the art of examining. There are the material resources for conducting it, resources carefully and elaborately prepared, after long years of observation as to the requirements necessary in examinations. No other institution possesses such abundant and such excellent material for conducting a high class examination in anatomy and pathology as the College of Surgeons, owing to its unrivalled museum; and let me add that the Examiners are elected from the whole of the Fellows by the Council, itself a representative body holding office for a limited period. And now that the conjoint scheme is matured, there will no longer be any barrier to the separation of examiners in anatomy and physiology from those in surgery, a separation which I have long advocated, which has been agreed to by the Council of the College, and provided for in the Scheme.

In the improbable event of a State examination for all persons entering the profession being instituted, it would be as well to consider in what way the examining board would be formed. The Minister of State must seek assistance from our profession, and the appointments might be made under the direction of the Medical Officer of the Local Government Board, or of some unknown member of our profession, for we have recently seen how the official medical adviser of the Government can be set aside and ignored. Would an examining board composed of physicians, surgeons, and teachers so appointed, under the advice of a physician, or of a surgeon, as distinguished even as Mr. Simon, command the confidence of, and give satisfaction to, the profession and the public? Would a board so appointed possess a single advantage or any credit superior to a board of examiners carefully chosen by a committee of reference, composed of the best men from our corporations and the universities, who would possess full knowledge of the most capable teachers in the medical schools?

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* Mr. Alfred Baker.

I have mentioned public medicine as one of the subjects in the support of which the Metropolitan Branch of the Association has done some good work. Unfortunately, the laws relating to sanitary medicine are imperfect, have been passed piecemeal, and want consolidation, and our knowledge of some of the important matters bearing on health, the causes of diseases, and the best means of avoiding or warding them off, is not sufficiently definite and settled. There appears, however, to be a general unanimity of opinion in the profession in favour of instituting a department of State medicine, and providing for instruction and examinations in the special subjects relating to it. The Medical Council, the College of Physicians and Surgeons, as well as this Association, have all taken action in recommending the adoption of measures for these purposes. The public are beginning to find that prevention is better than cure, and that thousands of lives are sacrificed to the neglect of sanitary precautions, to the poisoning or deterioration of the food we take, and the air we breathe. Great good, without doubt, is already done by the Inspectors of Schools, Factories, and Mines, as well as by the Inspectors and Officers of Health; but what is chiefly required is some test of qualification, some security that persons appointed to these offices have acquired a competent knowledge of the particular subjects with which they have to deal. When this is obtained, we may hope to diminish the scandal, so little creditable to a scientific profession, of opposing evidence in courts of justice on sanitary matters concerning which there should be common agreement, and of conflicts of opinion on matters of chemical analysis. The Committee of the House of Commons on the Adulteration of Food have just made some valuable suggestions, with the view of meeting some of the evils to which I have alluded.

Gentlemen,—I have touched briefly, and I fear but feebly and inadequately, on a few topics which I thought might interest you at the present time, and which seemed appropriate to the occasion of this meeting. A free discussion of subjects of a medico-political character cannot but lead to good results, often to the removal of prejudices and the correction of erroneous impressions. In the promotion of questions such as those to which I have alluded, our individual influence may be small; but when that influence is exerted in various circles, when our opinion is expressed collectively, a public feeling is created, which helps the onward progress of useful measures. But let us be sure that our views are broad, and that the object we have in view is the common good, not the special interests of any particular class or institution, and we may then direct our energies, with a confident reliance that success will ultimately crown and reward our exertions.

CREMATION IN ITS BEARINGS UPON PUBLIC HEALTH.*

By WILLIAM EASSIE, C.E.

In reading this paper before this Society, I may say that it is no thesis composed to satisfy the moment, and, in some sort, befittingly respond to the honour you have done me, but a paper which embodies my conscientious sentiments. In strict keeping with the sanitary text, I shall take no notice whatever of the history of cremation, or its relationship to religion, sentiment, or economy, but deal entirely with its bearings upon the health of the living, pointing out, from carefully collected and authentic sources, how the dead have poisoned, and still poison, the living, and how science can dispose of all who pay the debt of nature in a manner which, to use the words of a now famous document, "shall rapidly resolve the body into its component elements by a process which cannot offend the living and shall render the remains absolutely innocuous".

Cremation is no new thing, as we all know. And, as is usual when anything affecting health is concerned, its champions have been found in the medical professions. I have seen most, if not all, of the pamphlets published on cremation in Germany, Italy, and France, and they are all by members of the faculty of medicine. The best considered and most practical work is that of Sir Henry Thompson, which nearly every European nation has now translated for itself. It has awakened in our own land an interest which cannot possibly subside, and its arguments have found a willing confirmation in the minds of thousands of all classes.

In order to form a comprehensive idea of the salutary benefits which will accrue from a general observance of cremation, or even from a limited adoption of the scheme (which, by the way, is nowhere forbidden by the statutes of the land), it will be necessary to cursorily review the positive evils for which past inhumation was answerable—the comparative benefits which have resulted from subsequent legislative enactments, which, although mostly relating to our metropolis, have, nevertheless, exercised a certain beneficial influence upon the whole country—and so lead up to the superlative advantages which the advocates of cremation consider the incineration of our dead will secure.

It seems to be generally admitted that the fœtid air exhaled from the dead is fatal, if breathed in a concentrated state, and that, even when dissipated by the wind, it lowers the vital powers of the community. Cases of instant death to grave-diggers, notably to three in Paris in September 1852, from accidentally inhaling the concentrated miasma which escapes from coffins, have been recorded. Slower deaths from exposure to the same evil, through what is designated low fever, are very common. Undertakers have given evidence to the effect that they have suffered from faintness and nausea, even when they have not been cognisant of any offensive odour.

Dr. Riecke reported that putrid emanations "operate in two ways, one set of effects being produced through the lungs by impurity of the air from the mixture of irrespirable gases, the other set through the olfactory nerves by powerful, penetrating, and offensive smells". Dr. Southwood Smith said that, when present in the atmosphere, morbific animal matter is "conveyed into the system through the thin and delicate walls of the air-vesicles of the lungs in the act of respiration", and instances how the vapour of turpentine, if only inhaled when walking through a recently painted room, will exhibit "its effects in some of the fluid excretions of the body even more rapidly than if it had been taken into the stomach".

So with the vapour which rises from an overcrowded and even from any churchyard. People who are accustomed to reside near badly regulated graveyards are mostly unable to detect the serious nuisance by the sense of smell; but medical men, accustomed to the dissecting-room, can distinguish it directly, and can even separate it from the foul odours arising from the sewers. In a case at Manchester, where a main sewer ran through the graveyard, the graves drained into it, and the smell of the dead came into the houses through the untrapped sinks. A Mr. Roe stated on oath that he once traced exudation from a churchyard in St. Pancras Parish into the road-sewer thirty feet distant, and that this would have resulted even if the sewer had been cemented or concreted over. These cases will prove that there are more sources of danger than from surface-emanations. The rule seems to be that, where the graveyards and roads are paved, and the stones laid horizontally, the escape of the deleterious matter is either into the wells or sewers. If, as in many instances, the level of the burial-ground be above that of the street, the loathsome matter may even be seen trickling down the walls of enclosure. Some most sickening cases were published in 1851 in the report issued by the General Board of Health.

If the formation of a deep sewer will suffice to drain dry all the wells near its line of march, then the sinking of a well near a burial-ground must help to drain the latter. There is a complication when drains in the neighbourhood of graveyards are tidelocked at intervals; and an instance of this was given by Dr. Reid, who stated that careful examinations of the air in the Houses of Parliament, thirty years ago, resulted in the discovery that it was very much vitiated, both by night and by day, from their proximity to St. Margaret's burial-ground.

The disorders commonly complained of in the neighbourhood of burial-grounds are headaches, diarrhœa, ulcerated sore throats, and so on. An officer, however, stated to Mr. Chadwick, from whom I quote, that, when a building looking over a certain Liverpool churchyard was used as a barracks, he and his men always suffered from dysentery. It was related by Messrs. Houlier and Fernel that, during the prevalence of the plague in Paris in the beginning of the eighteenth century, "the disease lingered longest in the neighbourhood of the *Cimetière de la Trinité*, and that there the greatest number had fallen a sacrifice". In such desperate plight also were the houses which abutted upon the churchyard of St. Innocent, that the vapour was *seen* to rise from the soil, and that the stench was unbearable. It is on record, too, that, when a large common grave, fifty feet deep, was dug in the same cemetery in the following year, candles would not burn in the cellars of the adjacent houses, and those who only approached the apertures were immediately seized with alarming attacks. The walls of the cellars streamed down also with a poisonous moisture, which caused a painful swelling of the hands and lower arms of those who injudiciously touched it. It was proposed by M. Fourcroy to analyse the gas evolved from bodies which had been interred in this oversaturated soil; but no grave-digger would assist in its collection, because it produced almost sudden death if inhaled in the concentrated form near the body, and even at a distance, "when diluted and diffused through the atmosphere, produced depression of the nervous system and an entire disorder of their functions". As a rule, the grave-diggers there had a cadaverous appearance and all the other signs of slow poisoning. M. Patissier also noticed several cases where death resulted from digging the graves. Doubts have been expressed as to the baneful effect of putrid emanations upon grave-diggers; but, as Mr. Chadwick has observed, if a number of these men be compared with a number of men following healthier occupations, it will be found that the mephitic influences entail a loss of at least one-third of the natural duration of life and working ability. As a rule, none but the healthiest and most robust men choose this trade, and they drink very freely, in order to overcome the nervous depression caused by unhealthy emanations, live on stimulating foods, and work but for a few hours per day.

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* Read before the Metropolitan Counties Branch.

Professor Parkes, in his *Practical Hygiene*, has described and named the offensive gases and putrid vapours given off by churchyards. Professor Pettenkofer has also proved the presence of carbonic acid gas in the ground-air under houses, and the effects produced by this pulse-lowering gas. Dr. Reid examined at Manchester some graves which had been dug some hours previously, and found that it was necessary to have recourse to mechanical or chemical ventilation before the men could descend in them. The carbonic acid gas simply flowed into these deeply dug graves from the porous surrounding soil, like so much water. In the same way also this poisonous gas finds its way into the churches whose floors are below the level of the churchyards.

The danger of inhaling the atmosphere of churches or chapels, under which burial-vaults are used or interments made, has been repeatedly pointed out. Dr. Copland mentions the case of a gentleman who was poisoned by a rush of foul air from the grated openings on the sides of the steps, and who died from a malignant fever in a few days' time, communicating the same to his wife with a fatal result. The same fever has been known to seize the pew-openers when cleansing and shaking the mattings of the floor. After a vault had been opened, the smell was at times overwhelming. It was the opinion of Mr. Chadwick, after examining some hundreds of witnesses of all kinds, that entombment in vaults was a more dangerous practice than interment in the earth, because of the liability of the coffins to burst.

We may, therefore, for our purpose, assume that, even under the most favourable circumstances, hurtful emanations must perforce rise out of burial-grounds, there being no more natural escape for the gases of decomposition than by levitation. These gases will rise to the surface through eight or ten feet of gravel, just as coal-gas will do, and there is practically no limit to their power of escape. The danger is always persistent in the cases of dry and porous soils, exactly those which are most fitted for cemetery purposes. In a churchyard at Stuttgart, in which only five hundred bodies were interred yearly, and not more than one in each grave, the north-west wind rendered the emanations from the dead perceptible in houses two hundred and fifty paces distant. It will thus be seen that the soil best fitted to ensure decay is exactly the worst one for neighbouring houses. Unless there can be some artificial means taken to bring about the slow combustion of these gases, as, for instance, by layers of charcoal, the gases must continue to escape in a foul condition.

What shall we say of the poisoning of our wells and water-supplies by too adjacent burial grounds? Professor Brande has instanced a case of a well near a churchyard, the water of which had not only derived odour, but colour, from the soil, and gave it as his opinion that the water in all superficial springs near burial grounds is simply filtered through accumulated decomposition. Some wells near a churchyard in Leicester were disused some time ago because of a perceptible taint in the water, and, in Versailles, several wells which were situated below the churchyard of St. Louis stank so much as to require shutting up. During the Peninsular War, our troops suffered greatly from low fevers and dysentery, caused by being obliged to drink the water from wells which were sunk too closely to the interred sick. Troops have often been compelled to change their encampments owing to this kind of water-poisoning. Cases are on record where men have been seriously injured by excavating amidst some water which had drained from graves, and a medical man once discovered, upon the surface of a glass of well-water presented to him at the bar of a London hotel situated near a burial ground, a film of morbific matter. In Paris, M. Ducamp, not long ago, discovered a spring which was entirely derived from the rain which fell in the cemeteries and from the liquids of decomposition; and the foolish people, discovering that it possessed the peculiar sulphur-like taste which is always concomitant with decaying organic matter, purchased it as a mineral water.

Dr. Mapother has visited the churchyards of many Irish towns, and has "generally found them placed on the highest spot near the most central part, whence of course all percolations descend into the wells". One churchyard he particularly describes "as lying so low that the water from the river overflows it in wet weather; and, notwithstanding this circumstance, from 30,000 to 40,000 people are supplied from this river".

The latest and best authenticated case of water-poisoning from infiltration of this kind is given by Dr. De Pietra Santa in his last work. He confines himself to quoting the example of the hamlets of Rotondella and Bollita, the cemeteries of which, placed upon the summit of a wooded hill, and at a considerable distance from the houses, have still been the means of carrying contagion into their midst. At the foot of the hill upon which the cemetery was perched, emerged the springs destined for the daily use of the inhabitants, and, these being the products of pluvial waters which had once spread over the surface of the two cemeteries, the water had filtered through the earth and become impregnated with the elements of the dead bodies. This contaminated water eventually produced a fearful epidemic. Dr. Pappenheim says that, if organic chemistry had made more progress, if, above all, the organic matters contained in drinkable waters were known, springs would be easily found containing putrefied substances, which he mentions, to the great injury of those who use the water, and it would be easily discovered that the evils came from a distant cemetery. People, however, are now more and more alive to the danger of subterranean infiltration from dead matter, and the use of wells in towns and cities is now nearly unknown. In Paris, a law forbids the sinking of a well within one hundred yards of any cemetery, but, in some cases, two hundred yards has proved an insufficient distance. In parts of Germany, again, the minimum distance allowed by law is one hundred yards.

In 1843, the area of the cemeteries, properly so-called, in the metropolis amounted to about 260 acres, and the annual number of burials performed amounted to nearly 3,400. Of this number, the burials in the East London, in the City of London and Tower Hamlets, and in the Kensal Green Cemeteries, made up over two-thirds. The number of burials per acre in the East London Cemetery, Mile End, was 154; in Kensal Green, 17; and in Norwood, 5. A very good idea of the lamentable want of proper space for burial in the metropolis in 1843 was furnished by Mr. Sopwith, who showed by a plan that the extent of intramural space then provided was just about half of what it ought to be, even at the standard of 110 burials per acre. At that time, things were in a most desperate state, the burials at the parochial yards of St. Mary's-at-Hill, St. George's Burial Ground in Uxbridge Road, and St. Olave's, Tooley Street, averaging 1204 per acre. The grounds belonging to other religionists were in some cases worse; for the interments in the Roman Catholic yards at Moorfields and Dockhead, in the Baptist ground at Woolwich and in the Congregationalist fields at Stepney, averaged 1278 per acre. But the parochial burial-grounds of St. Giles's, St. Pancras, and St. John's Chapel of Ease, exceeded the last named figure by 282, and, horrible to relate in these days—when we calculate that, to properly accommodate even 52,000 annual metropolitan dead with decennially renewed interments, we should want at least 500 acres—the burials in the new Bunhill General Burial Ground reached the astounding figure of 2323 per acre.

Since 1843, however, many of the parochial dissenting and general burial grounds have been closed, and the cemeteries have been more resorted to. New ones have also been opened, as, for instance, that at Woking. Others, again, are being projected for places where interments have been found difficult to obtain, notably one for the South of London, near Penge.

Anyone can see for himself the evils resulting from overcrowding our burial grounds. It is believed by some that the drainage from the grounds of the chapel at St. John's Wood finds its way into the canal intersecting the park roads, and that the unwholesome smells complained of at North Bank are traceable to the crowded condition of that ground. It is certain that at times the air in the Wellington Road is most unsavoury. In 1850, the Board of Health condemned the cemetery at Brompton, but wholesale interments are still carried on there, with, it must be, anything but satisfactory results to the houses which surround it. At the present moment, it is proposed to open a burial-ground for Hampstead Parish within 500 yards of a reservoir, constructed since 1871 at a cost of £25,000. The formation is clay, and could be well enough drained; but it is extremely probable that, at some future time, the exhalations will affect the water, especially if uncovered. At the present moment also a company is being formed to work a cemetery at East Ham, two miles nearer to the city than Ilford Cemetery. As the site is upwards of two miles beyond the metropolitan area, no certificate is required from the Secretary of State, and yet it is adjacent to some very populous parishes, whence, as is set forth, numerous interments may be expected. The site occupies 115 acres, 45 of which it is purposed to reserve for burials, the other 70 to be sold in lots for building purposes. No one, however, should find fault with any means taken for relieving the present cemeteries.

A great many cases could be raked up against the present mode of burial; but I will not act the part of a special pleader. I might, however, point out that instances have occurred in which burial-grounds have been washed away by the bursting of reservoirs. In 1854, at Herrenlauersitz, upwards of one hundred bodies, the majority still encoffined, were washed out of their resting-places by an inundation, and floated into gardens, harvest-fields, and houses, nor were they wholly recovered until a fortnight after the calamity.

Our burial laws specify that each dead adult shall be entitled to four superficial yards of earth. Allowing for the predominant deaths amongst children, this would be an average of three yards. This thirty-six superficial feet is about the space allowed to each body by the authorities of Stuttgart and Munich; but, in Würtemburg, fifty-four feet are accorded, and in some parts of Austria as much as ninety feet is awarded to each adult. The common practice with us is to allow about a quarter of an acre of burial-ground to each 1000 head of population, where the soil is favourable; but some authorities double this allowance, and leave room for embellishing the ground. Wise cemetery companies also allow a space between each alternate row of grave-spaces, in order to prevent trampling. They, moreover, encourage the purchase of family freehold grave-plots containing three or six grave-spaces. It is true that the proprietors of the burial-ground profit by this payment in anticipation; but the benefit accrues largely to the public as well, for it does not become necessary to open the same grave should two members of a family die with but a short interval between. For the rest, a commodious grave-space presupposes a sufficiency of soil to absorb the gases, allows the grave to be opened without the earth of the adjoining one falling into it, dispenses with the shoring up of the sides with planks, and provides excellent space for suitable monuments. As a general rule, one-sixth of the entire acreage of a cemetery will also of a necessity be appropriated for roads and paths, for sites of lodges and chapels, and botanical groves.

The depth at which burial is practised varies much, but it is usually from eight to ten feet in soil propitious to decay. Six feet would suffice, it might be; but, as the intention is to be able to reopen the graves fourteen years after the burial of an adult, and eight years after the burial of a child, a fair maximum depth is resorted to. When a burial has taken place in an allotment, the above period of lying fallow can only be shortened should it be necessary to open the grave to inter another member of the family. In such a case, a foot of earth must be interposed. The law is also distinct on the point that no one shall be buried in any unwalled grave within four feet of the ordinary level of the ground, unless it be a child, and then not less than three feet of soil shall lie above it.

When the coffin is not laid in contact with the soil, but entombed in a vault or walled grave, the occupied space is covered by a stone cemented down, air-tight, upon a ledge in the wall, and the raising of which is for ever forbidden. The entombment may be also made by an air-tight surrounding of concrete. The best practice of vault burial is to place some charcoal or disinfectant along with the coffin, so that no foul gas shall escape should reopening be necessary. When old vaults underneath churches are reported upon and found inimical to public health, the churchwardens can be compelled to remove the contents elsewhere, and disinfect the vaults, charging the poor-rates with the expenses. No interment is now allowed under any new place of worship, except with the authority of the Secretary of State. During the ten years, too, which followed the passing of the Burial Acts in 1852, more than one hundred church vaults in the metropolis were disinfected and sealed up.

Cemeteries, and not churchyards, are now the chosen sites for interments. These cemeteries are permitted to be located upon any piece of ground, provided that the usual restrictions are not set at naught. A well chosen cemetery is one whose soil is dry, close, and yet porous, permitting the rain and its accompanying air to reach a reasonable depth, and so expedite decay. The formation is also well covered with vegetable mould, which assists in neutralising any hurtful emanations and encourages the growth of shrubs. The formation is also of such a kind as to need no underdraining, and such as will prevent the water lodging in any grave or vault. It will also stand on a higher elevation than the city or town, if at all possible, and exposed to the north or north-east winds, which are dry, and which do not hold the putrefactive gases in solution, like the moist south or south-westerly winds.

Cemeteries can be made upon clay soils, if properly drained by deep cross-drains, and by pipe-drains laid from grave-space to grave-space, duly conducted into the main drain, or, by causing the first interments to be made near the drain, strewing gravel at the bottom of each grave opened out, and similarly connecting with this porous layer each new grave with a previous one. When the soil does not admit percolation downwards, it is necessary to get rid of the surface-water by laying a line of pipes at the upper end of each row of graves, and so intercepting it. Or upright pipes are placed, reaching down to the bottom of the grave and to the artificially placed gravel then communicating with the drain. The clayey soils of some burial-grounds have also been improved by the admixture of sand and gravel when refilling the graves. But, even after all this expense, the gases evolved during decay are retained very often in the soil, and, after thirty or more years, little or no change will have been effected. The laws of nature are thus contravened; for she has ordained that, in good soil, all but the larger bones shall disappear in twelve years. If interments be made in the worst of clays, sudden heat will open up fissures in the ground with lamentable results.

An improperly chosen graveyard, then, may be said to be one where the soil is dense and clayey, and impervious to moisture. It will be insufficiently drained, necessitating the use of planks to walk upon in wet weather. It will be too close to the abodes of the living, too small to permit proper planting, the graves covered, it may be, with flat stones, which prevent the passage downwards of the air and rain, and surrounded, moreover, by high walls which exclude the fresh air. The ground will be stony and insufficiently covered with vegetable soil. No natural outfall will exist, and the drainage-water must be pumped up, the bare idea of which is desperate. It will be near also to water bearing strata, or to a reservoir. Long before decomposition has been achieved, owing to the smallness of the site and the impossibility of obtaining any more, except at high building prices, the organic matter hidden out of sight will be far too large in proportion to the area.

We may, therefore, come at once to the conclusion, that a proper site for a cemetery is not everywhere obtainable, and that serious mistakes must oftentimes be made. It would be well if many that we know could be closed as easily as can one of the older burial-grounds of our cities. At the expiration of a month's notice, the Privy Council may make an order to discontinue the latter, and anyone assisting in the burial contrary to that order is liable to fine and imprisonment. During the ten years which elapsed between 1852 and 1862, about 500 orders in Council were issued, by means of which, says Mr. Baker, the great legal authority upon the laws of burial, some 4000 old burial grounds have been closed or regulated.* During the same space of time, some 400 local burial boards were constituted. Within that period also nearly one and a half millions were raised for the use of the parochial cemeteries by the ratepayers.

The Ecclesiastical Commissioners can grant, in certain cases, a faculty permitting the erection of schools in churchyards, especially when the grounds have been closed under the Burials Act. Never shall I forget a school of this description in one of our largest cities. Old burial grounds can be converted to more common secular purposes under certain restrictions, as may be witnessed almost every day in London. In such cases the remains must be decorously removed to some consecrated ground, after due notice to the relatives. If the closed burial-ground be taken under the Land Clauses Act for public improvements, and converted into sites for building, the freeholder obtains the sum at which it was valued previously to the passing of the Act, and the building may proceed. In the City of London, the Commissioners may, with the Bishop's consent, arrange with the churchwardens for the appropriation of any disused burial ground. Sometimes, as in the case of the Bunhill Fields ground, the space may be laid out and preserved as an open space by a corporation, and a burial-board may do the like with all ancient graveyards within their jurisdiction. The law, however, I believe, provides that, in burial-places so closed, vertical tombstones shall not be thrown down and made use of as a paving, and, as a general rule, the growth of grass is encouraged for sanitary purposes.

I have given you an account of the past and present state of the burial laws, because it was necessary to do so in order to estimate the position which any better system of dealing with our dead will occupy. It cannot be said that no pains have been taken to lessen the horrors of the tomb; for I have taken the trouble to make a list of the proposed improvements in the paraphernalia of death which have appeared since 1781, and everythingseems to have been considered. From 1781 to 1825, the main thing studied was security against the rifling of the grave; and then on to 1871 followed plans for all kinds of coffins in stone, marble, granite, slate, porcelain, earthenware, bitumen, asphalte, paper, peat,

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* Regulation may mean the forbiddance of funerals in a church-yard, which has been reported against by the Medical Officer of Health, except in the case of family graves. Dr. Tripe has just closed a London church-yard in this way.

India-rubber, iron, and glass. Glass was the favourite proposal, just as it was in old Italy, where this material was mostly selected to enshrine the ashes collected from the pyre. It is melancholy to peruse these strivings after the impossible, and to see what fond but unavailing attempts have been made to rob interment of its terrors.

If we repudiate interment, what shall we put up in its place? Embalmment? Well, ever since the days of the early Egyptians, who simply practised it because they believed in the transmigration of souls and their return in three thousand years, embalming has continued to meet with supporters. Some original treatises have been published upon it in our own country, notably one by Surgeon Greenhill in 1705. Mummifying preparations were patented by Orioli in 1859, by Morgan in 1863, by Audigier in 1864, and by Larnandes in 1866. Half-schemes for a partial embalmment were also published in 1860 by Copping, and in 1863 by Spicer. The filling of the arterial and vascular systems with concentrated solutions was also proposed by Spear, Scollay, and by two Parisians, in the year 1867; and yet another patent was issued in 1868. But we may assume that an universal system of embalmment is undesirable in our times. There is no purpose to serve in withholding from Nature her very own. Cases may be imagined in which the practice would be advisable; but, as a rule, the earth's surface is required for the living, not for the dead; and we have, at least here, no underground caves. Had the Egyptians lived in a climate such as ours, there would have been no embalming. The failures still to be seen in the Lincoln's Inn Fields and in the Manchester Museums are quite sufficient to disenchant us.

A method of petrifaction has lately been broached, and has met with some adherents. Something is to be produced similar to a relic which I once saw for sale in Manchester, taken from a guano-bed about thirty years ago, and which had been interred in the phosphates about a hundred and fifty years previously. In a cave in the Bay of Nipea, a number of bodies were discovered which had been petrified by the waters of some springs. The latest mode of effecting this kind of sanitary preservation was practised upon the body of Mazzini; and the result was, I understand, very disappointing.

There is agitating in Germany a system of inhumation analogous to that practised when stone-coffins were in use. It is proposed to encrust the subject over with a cement; and, after placing it in a sarcophagus of similar artificial material, to pour more of the same matter in a fluid state around it, so that the dead would be entombed in a solid matrix of long-enduring material. But those who are practically acquainted with the nature of cements, or rather with the impossibility of resting assured that proper cements would always be used, will know that it is more than likely that, out of the thirty-two thousand who die annually per million, one-half of the bodies would be enveloped in an impoverished material, which would speedily fall to pieces, with disastrous results. Supposing, too, that each of the defunct required a space of one cubic yard only, where could cemeteries be obtained which could afford permanently to alienate 32,000 cubic yards of space? The scheme carries wildness upon its very face.

It has also been seriously recommended to commence what has been called immarment or aquation—in other words, sea-burial. Some propositions of this kind may have been noticed lately in the public press. If it be true that 1400,000,000 represent the annual dead of our globe, what would follow if Europe only were to commence the practice?

There remains now only cremation. I do not think that there can be much doubt that the practice of cremation was at first a sanitary measure, and that it originated in the East. That it was resorted to for the purpose of transporting to the mother-country the ashes of the chief warriors, there can be little question; neither any doubt that it was copied up to a given time from the force of imitation. The ancient Jews do not seem to have practised it; but neither did they encluster graves around their synagogues. Many of the Sephardic brethren of Gibraltar and the adjacent parts of Africa, however, bury their dead in quicklime. The more perfect cremation is about to be instituted in one of the Jewish cemeteries of Berlin. I may here remark, that the various methods of modern cremation are all that can be desired by even the most sensitive mourner.

Perhaps the best comparison between cremation and burial can be made by considering how they work together in a hot country like India. The Rev. J. Long, for thirty years Church missionary in Calcutta, informs me that "the Mahomedan burial-grounds there have long been a crying evil, and the nurses of cholera, fever, and dysentery". The Moslems, as is well known, practise burial, often a very superficial one; and chinks are sometimes left in the stones, so that the relatives can whisper to the departed—a custom probably descended from the ancient Egyptians, who used to incense the corpse through perforations in the walls. The chief evil, however, consists in the shallow burial; and the excavation of the bodies by jackalls is of common occurrence in outlying cemeteries. This liability to depredations by wild animals, the scarcity of fuel, and not religious scruples, are, in my opinion—and I came to that conclusion when travelling in Palestine—the reasons why the ancient Jews and the Arabs preferred caves which could be sealed by large stones, or tombs whose superstructure defied penetration. Mr. Long eulogises the customs of the Hindoos, who, at the expense of a few shillings, in some sacred spot close to the holy river, burn the dead "out of their sight". In Siam, cremation has been practised for centuries; and in the old and wealthy houses may be seen golden urns containing the carefully collected ashes of many generations. Presumptive proof would even lie, that cremation was the oldest of all mortuary institutions, and that burial is merely an erratic deviation from some original injunction given when burnt offerings were common. If corroboration were needed, it might be found in the doubtless far descended practice of the ancient peoples, who forbade the burning of lightning-stricken bodies, and of suicidal remains, as unworthy of so noble a treatment.

That cremation was practised in these islands by the ancient Britons, numerous relics can prove. We need not now discuss whether or not cremation was ever practised by the early Christians. Professor Rolleston contends that they did not so, and he is an eminent authority upon the subject. The question is, however, more or less an open one, and will bear further examination. It is certain that it was practised by some of the Saxons who followed Roman customs, and that it fell off altogether soon after the introduction of Christianity. It would be unwise to say that the early Christians repudiated cremation merely because it was practised by the pagans; because, as Dean Stanley has lately shown, the former, in Rome at all events, copied largely from the latter in the matter of catacomb illustration; and, if the rule had been to discard all pagan practices, this would not have been the case. Perhaps the practice of incineration ceased to be common soon after the more ascetic side of Christianity was exhibited, and when the representation of death's heads for sepulchral embellishments replaced the more elastic and genial designs of the ancients. As a natural concomitant of this gloomier state of things, the dead doubtless soon began to be interred within the shadow of the various religious fanes. I see no dreadful superstition in the practice which thus sprang up. It is even now desirable that the cinerary urns should be enniched in the church columbarium, or rest in the ground adjacent.

It is not, therefore, strange that we should now seek to revert to the practices of our forefathers, or copy the far-off East; but it is strange that, just when Europe is straining after a return to the benefits of cremation, and anxious to throw off the foolish idea that Christianity is necessarily opposed to the practice, some peoples in Asia, rightly deeming that the tenets of Christianity are the groundworks of our greatness, have, in trying to catch its essence, foolishly copied our weakest points, and decreed that in future all sects shall bury, and not burn, their dead.

The general adverse feeling to burning even the dead bodies of animals has, without doubt, often brought about serious evils. During the Crimean war, the putrefaction of numberless horses in and around the French camps became ultimately a serious matter; and, had they been properly destroyed by fire, no evil effects could have followed. In the battle of Paris, on March 30th, 1814, four thousand horses were killed, and they were burnt in twelve days afterwards, as was highly proper; and why were they not so treated in 1864? It could not be for want of fuel: was it for fear of offending the prejudices of the allies? It is doubtful, too, whether or not the removal of diseased cattle from our midst by mere inhumation is sufficient to stamp out a very virulent plague. There can be no more difficulty in burning an ox or horse than in giving them a Turkish bath—a thing done every day.

My few remarks upon the cremation of human bodies have as yet referred only to those which have succumbed to the ordinary evils of life; but I cannot forbear recording my conviction that it would be wise in the stricken field to have recourse to the practice, even although in an imperfect manner. I saw, during the war, relics of the dead protrude from the Sebastopol trenches. The interred bodies at Metz were in many cases exhumed by the Germans and reinterred, because the superficial inhumation rendered them dangerous to adjoining tenements, and also a likely source of contamination to the watercourses. At Sedan, the same thing occurred, says Dr. Parkes; only in this instance the bodies were consumed with pitch and straw.* Surely it would be well, even for the sake of sanitation, that the slain were burnt, as in the olden times, upon days set apart by neutral arrangement. The Genevan and other conventions could scarce find nobler work. As it is, the killed and dead-sick combatants are buried as haste dictates. Were cremation practised, there would be no costly monuments to be kept up by the invaders, such as we now jealously maintain on the heights of Sebastopol; nothing be left behind to recall a strife best forgotten; and the ashes of the warrior dead could even be brought home to lie in the fatherland.

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* After the late battle of Cuenca, the Carlists threw many of their dead into fires lit for the purpose.

I have come to the conclusion that cremation is a desirable thing; and when I bring to remembrance the revolting sights I witnessed when a boy in some Lancashire churchyards, and compare them with the quiet necropolis at old Dardanus, or the urn-burial sites on the plains of Troy, in both of which I have repeatedly dug for days with an increasing pleasure, I find myself wondering how it has come to pass that we practise burial with its many faults, and do not burn our dead. I feel myself almost beginning to be thankful that the dead are beginning to "rule our spirits from their urns" in a realistic, and not in a poetical sense. There is something majestic and even pleasurable in the idea that it will soon be possible, in all civilised shores, to leave our mother Earth, not with a partial, but with a fully consummated sacrifice upon her altar, bidding her adieu none the worse, but rather the better, for our sojourn with her. In my capacity as Secretary to the Cremation Society, founded by some of our most thoughtful men, and which, I trust, will form the parent society of many hundreds of others, I have the privilege of knowing how very many groan and labour under the burden of enforced burial, and how many now "hail with satisfaction and joy the prospect that a chariot of fire may receive them, instead of the cold and darksome grave".

ABSTRACT OF LECTURES ON THE SURGICAL TREATMENT OF ANEURISM.

Delivered at the Royal College of Surgeons of England.

By T. Holmes, F.R.C.S., Professor of Pathology and Surgery.

Lecture V.—*Popliteal Aneurism* (*continued*).

The first topic treated of in this lecture was the effect which the previous use of compression has on the success of the ligature, should this operation afterwards become necessary. It is generally taught that this effect is favourable; that doctrine resting mainly, if not entirely, on the statistics published by Mr. J. Hutchinson in the *Medical Gazette* for November 29th, 1856. But those statistics are too meagre to be the basis of any certain conclusion; and, although it is true that the previous use of compression may cause the enlargement of the collateral vessels, and so diminish the risk of gangrene; yet prolonged compression, by the suffering and confinement which it involves, must probably affect the result of the case unfavourably. Certain it is that, in the hospital table before referred to, the numbers (which are much larger than Mr. Hutchinson's) show a greater proportion of failure in the cases treated by ligature after compression, than in those treated at once by ligature. This is attributable, probably, in part to the fact that compression succeeds in the best cases and fails in the worst, as much as to any effect of the compression itself. The total result of the cases of popliteal aneurism in which the compression-treatment was adopted (including those in which it failed, as well as those in which it succeeded) was almost identical, both in the proportion of deaths and of failures, with those treated on Hunter's method, by the ligature used at once. This fact seemed to the lecturer to argue greatly in favour of the compression-treatment; since, by means of it, a large proportion (amounting to about a quarter) of the whole number of cases of popliteal aneurism were cured without any danger to life whatever, and in many cases with little or no suffering; and, in those who recovered, the limb was stronger and better nourished, in consequence of the less obstruction of the main vessels. At the same time, there is every reason to believe that the proportion of cures can be very greatly increased by better methods of pressure and more care in applying them. The total result of the table is most gratifying, as proving how large a proportion of cases of popliteal aneurism are cured, in one way or other, in our hospitals. The whole number of cases of popliteal aneurism in the table was 212; the total number of deaths only 30—*i.e.*, 14.1 per cent.—many of them due to other diseases; and in only 4 cases was the treatment left incomplete; 12 recovered after amputation. All the rest (166) were cured with preservation of the limb.

Still, though the success is great, it cannot be denied that further improvement is possible and desirable; and this will probably be obtained by the further development and the more careful performance of compression.

The history of the compression-treatment was briefly sketched; and reference was made to the great percentage of cures which followed the Dublin method of partial and interrupted pressure, in which the circulation was never entirely commanded, and the pressure was altogether relaxed at intervals. These details are taken from Mr. Joliffe Tufnell's book published in 1851. Reference was made also to the results (as far as they could be ascertained) which have been since obtained in Dublin, which still appear to show a very much greater proportion of cures than has been reached elsewhere, though the method of partial interrupted pressure has now been in great part abandoned for the total interruption of pulsation in the sac, either permanently or temporarily. These data, however, have not as yet been completed; and perhaps it may be impossible to collect all the cases which have occurred since Mr. Joliffe Tufnell's book was published; but, as far as they go, they appear to show that in Dublin only about a quarter of the cases resist compression, and that of these the very great majority are cured either by ligature or amputation; death being quite exceptional, and caused in many cases by visceral disease. If this is so, it is a plain proof that the large proportion of failures of compression in London and elsewhere depends on some imperfection, or probably on want of care, in carrying out the details of the method.

The lecturer then spoke about the methods of compression, avowing his disbelief in Broca's theory of active and passive clots; since the constant success of digital pressure sufficiently proves that the passive and complete coagulation of the blood very commonly leads to definite cure; and that, when it does not do so, the clots exercise no irritating influence on the sac, but merely melt away again, and the aneurism returns to its former condition. The method of digital pressure was shown to be superior to any instrumental method, on account of its comparative freedom from pain, and the possibility of avoiding simultaneous pressure on the vein. Its drawbacks—viz., the labour and the number of assistants required—have not usually been found very serious even in private practice; and it can be carried out, if the assistants are well trained, with an amount of accuracy which is seldom attainable either with the weight or any form of instrument. But minute care should be given to see that no pulsation ever passes through the sac; and it is well not to begin till the circulation has been somewhat reduced by rest and light diet. Numerous instances were produced of the rapidity of cure in favourable cases, and of the ease with which the patient can in such cases undertake his own treatment. When there is any reason to apprehend disease of the femoral artery itself, it is especially desirable to make the pressure with the finger, rather than with an instrument. The assistance of a weight laid on the finger of the compressor spares his muscles, and enables one person to carry on the compression for a much longer period.

There are cases, however, in which the pressure of a weight or of some form of tourniquet succeeds better. Of all forms of instrument, that invented by Dr. Carte seems the best.

The subject of popliteal aneurism was reserved for completion in the next lecture.

THE DIAGNOSTIC VALUE OF INCONTROLLABLE VOMITING IN CERTAIN FORMS OF HEPATIC ABSCESS.

By W. C. MACLEAN, M.D., C.B., Surgeon-General;
Professor of Military Medicine in the Army Medical School, Netley.

Captain N. R., an officer of the Indian Army, arrived at Madras about the end of April with a history of hepatitis. This officer's regiment formed part of the force assembled for exercise at Bungalone in the early spring of this year. On the termination of the manœuvres, Captain R. rejoined his family at the hill-station of Kamun-Duroy, near Ballary. The journey from the heated plain to the hill-summit was made on foot, at the cost of some fatigue. The sudden change of temperature, after being overheated, was followed by a chill. Hepatic symptoms supervened. As soon as he could be moved, he was sent to Madras, where he came under the care of Dr. Andrews, Dr. Liston Paul seeing the case in consultation. To the above gentlemen I am indebted for the following particulars. Dr. Paul wrote to me as follows.

"Returning with Dr. Andrews from successfully evacuating a liver-abscess in the case of another officer, I was asked by Dr. Andrews to see Captain R. I found him in good spirits, declaring himself to be much better, and able to drive out daily. I examined him carefully. The liver was not enlarged in any direction, and the only tender spot was over the region of the gall-bladder. His pulse was not high, and he was free from fever; but he had lost flesh considerably, and he complained of vomiting 'greenish-looking matter' at least once a day, generally after food. I did not," adds Dr. Paul, "think there was any evidence of an abscess in his liver, and diagnosed the case as one of chronic hepatitis with involvement of the gall-bladder."

Captain R.'s wish was to go to the Neilgherry Hills. From this

Dr. Paul dissuaded him, and advised him to take a sea-voyage. Dr. Paul did not see the patient again for a week, when he found him quite collapsed and rapidly sinking. For three days, Captain R. had been vomiting the same green-coloured bilious matter, almost without ceasing. This symptom resisted the most careful treatment, directed by Dr. Andrews. Neither food nor medicine was retained for an instant, until a few hours before death, when the vomiting ceased, more, as it appeared to his attendants, from exhaustion than from the remedies used.

I am indebted to Dr. Andrews for the following account of the *post mortem* appearances.

The body was emaciated. Rigor mortis was normal. The lungs were healthy. *Heart.* The muscular substance was undergoing fatty degeneration. There was a fibrinous clot in the right ventricle. The *Liver* was large, softened, and congested. The stomach was tied and cut off just above the cardiac orifice, and was carefully removed; but, when the duodenum was reached, it broke down under the pressure of the fingers, and the contents, a black fluid, escaped into the cavity of the abdomen. The oblique portion of the duodenum was of a deep chocolate colour, softened, thickened, and ulcerated. Upon examining its internal surface, pus was observed to ooze from a minute aperture on the right side. Tracing this with a probe, it was found to lead into an abscess about the size of a cricket-ball in the lobulus quadratus of the liver, full of laudable pus. The liver, gall-bladder, pancreas, stomach, and duodenum, formed one adherent mass, united by the inflamed lesser omentum. The great omentum was inflamed in patches. The serous covering of the transverse colon was ash-coloured, softened, and adherent to the liver; the mesocolon was inflamed and thickened. The gall-bladder was distended with thick tarry-looking bile. The ductus communis was apparently impervious. The stomach and bowels were full of a dark fluid, and the mucous membrane was congested throughout. The *Kidneys* were both congested; the left was enlarged, with commencing fatty degeneration.

Dr. Andrews adds: "The immediate cause of death was, I consider, exhaustion, from inability to retain food in the stomach. The above described condition is more than sufficient to explain why this was so. Had the patient lived a few hours longer, the issue might have been different, as the abscess was on the point of discharging itself into the duodenum, thus relieving stomach and duodenum from pressure, and making nutrition possible."

I have published this case because I think it of interest and importance from a diagnostic point of view. The real significance of persistent vomiting following on hepatic symptoms, however slight, did not escape the observation of Morehead, who, writing on the diagnostic value of the symptoms of hepatitis, thus expresses himself: "Nor may we overlook the relations of the concave surface of the liver to the stomach, and the explanation which this affords of the occasional occurrence of vomiting." And he adds: "But this symptom is more frequently observed in the advanced than in the early stages of hepatitis;" that is, as in the case before us, when suppuration has occurred, and the abscess presses on the stomach and duodenum. I can call to mind several cases very closely resembling that of Captain R., one with a more fortunate issue. A lady, after a chill, had slight hepatic symptoms, so slight as to cause little alarm. The liver was but little enlarged; there was hardly any pain, not much fever (it was before the days of the clinical thermometer, which in hepatitis is invaluable). From an early date, the stomach was irritable. At last, after a marked rigor, vomiting became almost incessant, the exhaustion of the patient became extreme, and her death was hourly looked for. Suddenly, nearly a pint of pus was vomited; the irritable condition of the stomach subsided; nutrition became possible; and this lady returned from the very gates of death to good health.

If fresh evidence were required as to the untrustworthiness of the absence of pain as a sign of hepatic abscess, the case of Captain R. furnishes it. It can never be sufficiently kept in mind that, unless the capsule of the gland partakes of the inflammatory action, a large abscess may exist without pain being complained of. We have now at Netley an officer who served on the expedition to the Gold Coast. He was brought to Netley raising daily, through the right lung, ten or twelve ounces of purulent matter from a liver-abscess on the convex aspect of the right lobe. In this case, the liver was much enlarged; but the utmost freedom of percussion and palpation was allowed without eliciting a complaint even of tenderness. Nevertheless, I was soon led to the opinion that there was another abscess deep in the substance of the gland, for the following reasons: 1. The enlargement of the liver; 2. The case had a dysenteric history, multiple abscesses when hepatic mischief supervenes being the rule in such cases; 3. Persisting high temperature, the thermometer ranging from 101 to 104 deg. Fahr., notwithstanding the free discharge of pus; 4. Progressive emaciation. Acting on this evidence, I passed the longest needle of Dieulafoy's aspirator between the eighth and ninth ribs in the axillary line, four inches deep into the substance of the gland, reaching an abscess, and evacuating twenty-four ounces of pus by means of the aspirator. It was found impossible in this case to retain a drainage-tube in the cavity of the abscess, as it always will be when it is situated so far from the surface, more particularly when, as in the case of this officer, the liver is adherent to the diaphragm, and made to partake freely in the movements of this muscle.

THE GAINS DERIVED FROM THE USE OF THE LARYNGOSCOPE.

By GEORGE JOHNSON, M.D., F.R.S.,
Professor of Medicine in King's College; Physician to King's College Hospital.

ONCE more, in reply to Mr. Thornton: I am aware that the muscles of the larynx may be affected by extension of disease from the mucous membrane. I have seen such cases often; but I do not consider this an "idiopathic disease" of the muscles. Moreover, in the case which forms the subject of this discussion, there was no history of any affection of the mucous membrane, which, during life and after death, appeared perfectly healthy. The crico-arytenoid articulation *was* opened after death; and in the specimen, which is preserved, it may be seen to be quite normal. The muscles were not examined microscopically.

Early in the ensuing session, I purpose to make a communication to the Royal Medical and Chirurgical Society, in which I hope to be able to give a satisfactory physiological explanation of bilateral spasm and bilateral palsy of the laryngeal muscles resulting from pressure on the trunk of one pneumogastric nerve.

CLINICAL MEMORANDA.

MAMMARY ABSCESS IN AN INFANT.

DR. STEPHEN'S report in the JOURNAL of July 25th of a case of mammary abscess in an infant three weeks old recalls to my mind a similar case that I saw last year. On referring to my register of obstetric cases, I see that I attended Mrs. D., a primipara, aged 40, on July 25th, 1873. She was safely delivered of a male infant. On August 9th, I was called in to see the infant, and found him suffering from two mammary abscesses, which I opened, and from which escaped a considerable quantity of greenish pus. The infant recovered, and I heard no more of the case. I had not seen the infant for some days previously to August 9th, so cannot, of course, say whether, as in Dr. Stephen's case, the abscesses originated in the retention of milky secretion. But I think there is sufficient similarity in my case to make it worth recording, especially as it is the first case of the kind I have seen, and the one reported in the JOURNAL appears to be unique in the experience of Dr. Stephen and his medical friends.

A. PLATT WILKS, M.B.Cantab., Ryde.

CASE OF HYDATID OF THE BRAIN: EPILEPTIC CONVULSION: DEATH.

THE following case is, I think, interesting from its rarity, and also from the *post mortem* examination explaining certain peculiar symptoms which existed during life, and likewise the sudden epileptic seizure and death.

A. G., aged 17, an inmate of a reformatory for the last two years and a half, consulted me in June last for a slight ulcer of the leg, which quickly healed; but my attention was directed to her general health and her strange conduct. She would steal things, and secrete them under her bed, without any object. She refused her food, or crumbled it up and hid it in her pockets. She would lie on the floor and sleep in the daytime, but at night was restless and noisy, disturbing the other inmates of the room. She placed books and other articles under her pillow, which, she said, was to make her head ache. She told her companions that she was shamming, that she might be sent to a hospital. On one occasion she attempted to strangle herself with a piece of ribbon tied tightly round the neck.

As I could discover no actual disease to account for this strange erratic conduct, I attributed it to hysteria, the result of amenorrhœa, she having menstruated but once. The matron informs me that, until the last few months, she was one of the best behaved and intelligent girls in the institution; and that, even so late as two days before her death, in the schoolroom, she gave correct replies to questions that the other girls were unable to answer.

On Saturday morning, July 4th, she rose as usual at six o'clock, dressed herself, and struck one of her companions without any provocation or apparent reason. She shortly afterwards fell on the floor in (as I believe) an epileptic fit, and died immediately. When I saw the body shortly afterwards, I found the face and neck perfectly livid, with foam issuing from the mouth. The tongue was not bitten.

The following day, I made a *post mortem* examination of the head. The brain was quite healthy, the vessels very slightly congested, and there was no effusion; but, on exposing the lateral ventricles, on the floor of the right one, attached to the optic thalamus, was an hydatid cyst. Having mentioned the case to Dr. John Harley of St. Thomas's Hospital, he very kindly offered to examine it for me, and has furnished me with the following description.

"Vesicle, ovoid, of the size of the tip of a little finger; body retracted, a line wide, hard from calcareous deposit. Hooklets measure from 1-150th to 1-200th inch long. Rostellum, and two in the suckers, surrounded just within the circumference by a band of dark pigment, visible to the naked eye. Integument everywhere loaded with bright ovoid calcareous corpuscles about the 1-1500 inch in diameter, and here and there darkened with larger concentric calculi measuring the 1-200th of an inch or more. In the foregoing characters, the individual agrees completely with the cysticercus cellulosæ of the muscle of the pig. The presence of so much calcareous matter indicates considerable age, and warrants the inference that the parasitic larva existed during the whole course of the cerebral symptoms; that it may have existed before they were developed; that some at least of these symptoms—viz., the attacks of excitement and the fit which terminated life—were directly the result of its presence."

GEORGE P. RUGG, M.D., Clapham Road.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

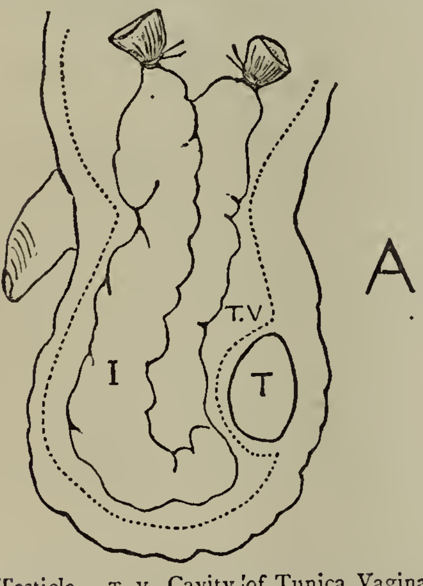
ST. MARY'S HOSPITAL.

TWO CASES OF HERNIA IN INFANTS.

(Under the care of Mr. EDMUND OWEN.)

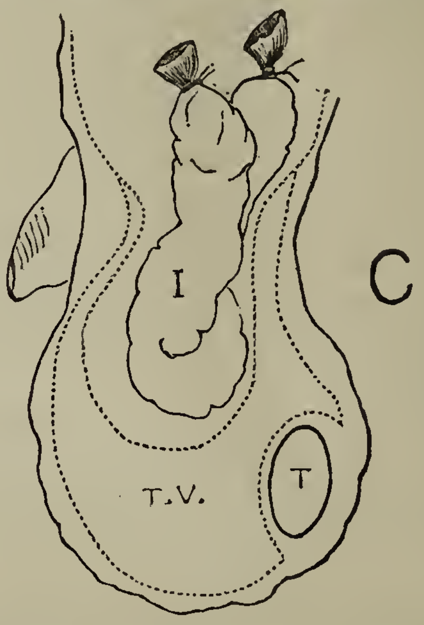
THE first of the two following cases was one of simple congenital hernia. It presented no special features inviting report, but may serve to introduce the second case, an example of that variety of inguinal hernia known as encysted or infantile.

CASE I.—On the 8th of June, 1873, a child seven weeks old was admitted by Mr. Davies, the resident obstetric officer, for a hernia in the left side of the scrotum, which had been discovered by the mother about eight hours previously. The child having been very sick, and crying whenever the tumour was touched, chloroform was at once administered; and taxis being found of no avail, the sac was exposed and laid open. A piece of small intestine, thickened and dusky from strangulation, was brought into view, lying in immediate contact with the testicle. The strangulation, as is usual in cases of this nature, existed high up in the neck of the sac, and was extremely tight. As soon, however, as the hernia-knife had been employed, the gut was returned, and the wound having been dressed with dry lint, the child was put to bed and made a favourable recovery. He was taken home by his mother at the end of a fortnight. The nature of the hernia is shown in the adjoining woodcut (A).



T. Testicle. T. V. Cavity of Tunica Vaginalis. I. Intestine. The dotted line represents the Peritoneum and Tunica Vaginalis.

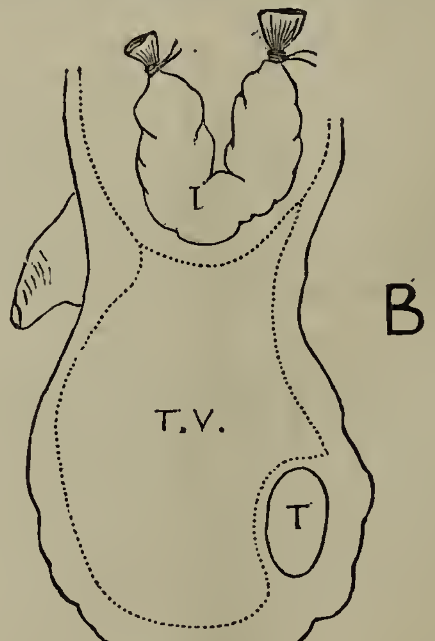
CASE II. *Encysted Hernia.*—The subject of this case—a weakly child, which had been brought up by hand—was admitted under Mr. Owen's care last November. The child's mother said that he had not been ruptured until seven hours previously to his admission, and that there had never before been any scrotal enlargement (such as would be found in a hydrocele). The hernia, which was very tense, lay in the left side of the scrotum. Chloroform having been administered, it was found necessary to open the sac, when the testicle, as in the previous case, was exposed, lying at the bottom of the sac. Instead of gut or omentum also being brought into view, a second sac of peritoneum, much congested from strangulation by the neck of the tunica vaginalis, was seen reaching half way down to the testicle. This second sac, which was about the size of a walnut, evidently contained a piece of intestine which was strangulated, as was also the neck of the sac itself, by the narrowing aperture of the first sac or tunica vaginalis. Upon the constricting bands being eased by means of the hernia-knife, the contents of the special sac were readily returned into the general peritoneal cavity. Thus, although the testicle was exposed by the opening of the tunica vaginalis, still the protruded viscus, or viscera, were not seen. From the history of the case, it is evident that there had been no hydrocele; indeed, there was but a very small amount of moisture in the tunica vaginalis. (The diagram C gives a representation of the parts.)



The wound was dressed with dry lint, and the child went on well for a day or two, when slight diarrhœa and sickness set in, and, gradually sinking, he died on the eighth day.

The *post mortem* examination gave evidence of there having been slight peritonitis and much more extensive pneumonia. The second sac was empty, and the intestines were healthy. Inflammation, consequent on the operation, had somewhat glued the testicle to the parietal layer of the tunica vaginalis, but a careful process of dissection represented the parts as figured. The preparation is now in the museum of St. Mary's Hospital (No. C. d. 20).

As Mr. Birkett says, "cases of encysted or infantile hernia are very rare"; pathological preparations showing their nature must needs be rarer still. A short account, then, of the manner in which they in all probability occur, may not be out of place. The tubular prolongation of the peritoneal sac, which the testicle drags down with it in its descent to the bottom of the scrotum, ought, in the course of nature, to become obliterated from just above the testicle to the internal abdominal ring. Should, however, a piece of gut, taking advantage of the open condition of the process at, or soon after, birth, pass down into it so that it may touch the testicle, the protrusion is known as a "congenital" hernia (as in A). If, on the other hand, the peritoneal tube be obliterated at the internal abdominal ring, whilst the tunica vaginalis and the funicular portion of the prolongation remain in free communication, the anatomy of the parts will be represented as in the diagram (B). The diagram (C) shows how this septum, at the ventral end of the canal, will form the proper sac to a piece of gut driven down by some expulsive effort into the extensive tunica vaginalis.



GUY'S HOSPITAL.

TWO CASES OF FEMORAL HERNIA.

(Under the care of Mr. BIRKETT.)

THE following cases are of interest, on account of the comparative youthfulness of the patients in whom the herniæ were developed. Mr. Birkett states, in his article on Hernia in Holmes' *System of Surgery*, that the youngest girl of whom he has heard as suffering with strangulated crural hernia was between eight and nine years old.

CASE I. Fanny W., aged 22, was admitted at 2 P.M. on March 22nd, 1868. She was a straw-hat plaiter, single, very thin, but usually enjoyed good health. She had a right femoral hernia, which suddenly descended whilst she was walking, and which was accompanied by violent pain in the abdomen. She had never worn a truss. Vomiting began on March 20th, at 10 P.M., and continued, with constipation, until she came to the hospital; meanwhile, the rupture had not been noticed until twenty-four hours after the commencement of the attack, and the patient had been treated with castor-oil and pills (probably purgative). Shortly after admission to the hospital, the patient was placed under chloroform; and then, as the hernia could not be reduced, the house-surgeon (Mr. Raine) proceeded to operate. He made a longitudinal incision through the tissues covering the hernia, which were very thin; opened the peritoneal sac, which was found to contain clear serum and bowel; divided Gimbernat's ligament from outside the sac, but did not incise the orifice or collar of the peritoneal sac itself, as the cause preventing the restitution of the intestine was found to lie in the tissues outside it; returned the protruded bowel; and brought the edges of the wound together with sutures. Opiates were subsequently administered. The patient made satisfactory progress after the operation. The wound was healed on April 9th; and she left the hospital on April 17th. This girl's father was also ruptured.

CASE II. Julia B., aged 20 in February last, single, a house-servant having ordinary work, well-nourished, and usually enjoying good health, was admitted into Guy's Hospital at 5.30 A.M. on May 14th, 1874. She had a right femoral hernia, which had probably existed for about two months, as she had felt pain in the groin on four occasions during that period. The hernia came down at 10 P.M. on May 13th, the evening previous to her entrance into Guy's, and she first vomited at about midnight.

On admission, she appeared somewhat depressed, her face had a congested aspect; the tumour was small, oval, and elastic. Taxis had not been applied. At 2 P.M. (that is, about sixteen hours after signs of strangulation had appeared), chloroform was given, and Mr. Birkett, after ineffectual attempts to reduce the rupture, made a vertical incision over Poupart's ligament. The coverings of the sac were very thin, and, after division of a few fibres of Gimbernat's ligament, the bowel was returned without the sac being at first opened. Still, however, the sac did not collapse as usual, so that a tumour remained, which was the sac infiltrated with serum, for, when it was cut and opened, serum could be expressed from its tissue. Small processes or digitations, curiously resembling the tentacles of an actinia when distended with fluid, projected from the exterior of the sac. The serum found within was clear and yellow; the orifice of the sac was not incised. It was evident that the cause preventing the return of the intestine before the sac was opened was the smallness of the aperture through which it had left the abdomen. After the operation, iced milk and water was administered, and the patient made a slow recovery.

SEAMEN'S HOSPITAL, GREENWICH.

CASES OF INJURY OF BOTH LOWER EXTREMITIES.

(Under the care of Mr. W. JOHNSON SMITH.)

CASE I.—*Dislocation of Head of Right Femur into Sciatic Notch; Dislocation forwards of Left Tibia.*—Michael E., aged 22, a short but very muscular man, was admitted, on March 30th, 1874, at a quarter-past three, A.M., with injuries to the lower extremities and to the face. Shortly before admission, he was stowing some bales of cotton in the hold of a ship, when a load of bales, weighing altogether about four hundredweight, fell upon him, from a height of ten feet. He could not remember what part of his body was struck or how he fell. He remained unconscious for about half an hour after the accident, and, when admitted, was in a state of intense shock. The integument of the forehead and nose was much lacerated; the right lower limb presented the ordinary appearances of dislocation of the head of the femur into the sciatic notch; and the head of the left tibia was dislocated far forwards, the integument of the popliteal region being tightly stretched over the condyles of the femur. Chloroform having been administered, the left tibia was replaced without difficulty by extending the limb at the ancle, and by manipulation of the ends of the long bones forming the knee-joint. The dislocation of the right hip was not reduced by the so-called process of manipulation, the lower extremity having been flexed at the hip and knee, rotated outwards, and then abducted. The edges of the extensive wounds of the nose and forehead were brought together by wire sutures. The constant application of an ice-bag to the left knee was kept up until April 7th, when, as all swelling and signs of inflammatory action had disappeared, the limb was confined in a plaster of Paris splint. On April 12th, this splint was removed, and replaced by a lighter one of silicate of potash and magnesia. On April 19th, the second splint was removed, and the movements of the left knee could then be performed readily, and without causing pain. On April 22nd, the patient was allowed to get up; he used crutches for a few days, but, on May 9th, was able to walk without any kind of support. On May 16th, he was discharged as cured. The wounds in the face healed speedily and without signs of inflammatory mischief.

CASE II.—*Fracture of both Thigh-bones.*—The patient was a thin and pale Spaniard, who, shortly before admission, had fallen from aloft. It was stated by some who witnessed the accident that he came down with both feet on the deck. On examination, there was found to be a simple oblique fracture through the middle third of each thigh-bone. On each side there was considerable mobility, with distortion of the limb and much overriding. On the following morning, the left limb was placed in a Hodgen's suspension-splint, and the right flexed at the hip and knee, and placed on the outer surface, as recommended by Sir James Paget and Mr. Callender in the treatment of fractured femur in infants. The patient's general health, during the treatment, seemed to be much impaired by the results of shock, and by hospital influences. He suffered frequently from vomiting, and at times was very feverish; from the 23rd to the 30th of March, he was the subject of severe inflammation of the tonsils and the pharyngeal mucous membrane. On April 19th, the suspension-splint was removed. The fragments were found to have united in a good position, and but very little irregularity could be made out at the seat of fracture. On the same day, the left leg, which since March 15th had been kept in one position of flexion, was brought down by the side of the other. It was then found that good union had taken place, with considerable deposit of callus. There was much difficulty in extending the limb to its full extent, in consequence of stiffness in the knee and hip. The foot was slightly everted. On the following day, there was found to be much effusion in the right knee-joint. As the stiffness and swelling of the joint passed off, the foot gradually regained its proper position with regard to its fellow, and the limb could be more readily extended. On May 8th, the patient was able to get up and to move about the ward on crutches. On May 20th, he was able to walk without stick or crutch. No appreciable difference could be made out in the length of the two limbs. The right hip still remained stiff, and there remained also a slight tendency to eversion of the right foot.

LEEDS GENERAL INFIRMARY.

DEATH FROM CHLOROFORM.

(Under the care of Mr. JESSOP.)

GEORGE W., aged 48, a strong, healthy-looking man, by occupation a joiner, described as a drunkard and a passionate man, was admitted into the General Infirmary at Leeds on July 15th, 1874, suffering from destructive inflammation of the middle joint of the long finger of the right hand, which was caused by his striking a comrade in a quarrel.

On Thursday, July 16th, he was brought into the operating-theatre for the purpose of having the finger amputated; and, at his own request, chloroform was administered by the house-physician in the usual way, on a square piece of lint, and from a bottle with a drop-cork. He took it rather badly, struggled more than is usual, and was just fully under the influence of chloroform and the operation begun, not having taken more than two drachms, when he gave two or three snorts, suddenly becoming livid in the face; his respiration stopped, and his pulse became very faint at the wrist. Artificial respiration by the Sylvester method was at once commenced and continued for an hour, as well as cold affusions to the face and chest, galvanism to the heart and diaphragm, and ammonia to the nostrils. The heart was heard to beat faintly at the end of about twenty minutes. After that, no sound could be detected; and no voluntary attempt at respiration was at any time made by the patient.

A *post mortem* examination was made twenty-two hours after death. The brain was found healthy. The lungs were slightly congested. The heart was flabby and slightly enlarged, weighing 12½ ounces. Both ventricles contained a small quantity of fluid blood. The valves were healthy. The abdominal organs were generally congested, but otherwise healthy. The stomach was perfectly empty.

This is the first death from chloroform in the Leeds General Infirmary since the opening of the new infirmary building in 1869.

REVIEWS AND NOTICES.

Hospitalism and the Causes of Death after Operations and Surgical Injuries. By J. E. Erichsen, F.R.C.S., Holme Professor of Surgery, and Senior Surgeon to University College Hospital. London: Longmans and Co. 1874.

It was with much reluctance that the writer of the present article accepted the invitation of the editor of this Journal to review Mr. Erichsen's recent publication, since, entertaining as he does a sincere respect both for the private character and the professional position of the author, it was distasteful to him to have to speak in what may be considered disparaging terms of the work under notice. But the importance of the subject is such, that the opposite side of it to that set forth in Mr. Erichsen's book requires to be plainly stated; and, as it was thought that the present writer, having bestowed some attention on the question of hospitals, was qualified to do this, he did not think it consistent with his duty to refuse. The article will perhaps be, however, less a review than a summary of a well known controversy, which it was hoped was over, until Mr. Erichsen's lecture last October revived it, and revived it in a most singular manner, by reproducing all the assertions of the one side as though they had been undoubted and authenticated facts—an error which, we are glad to see, he has corrected in the present book. This must be our apology for any repetitions which may be found in what follows. When arguments which have been answered over and over again, are repeated without any notice of the answers, repetition is unavoidable, in order to give the reader a knowledge of the whole case.

Let us, in the first place, perform the reviewer's duty of stating what our author's case is, in as few words as may be. Mr. Erichsen commences with the somewhat doubtful proposition that the *art* of surgery, by which he means only "its mechanical and manipulative processes", "has already attained to something like finality of perfection". This assumed perfection of the so-called "art" of surgery is then contrasted with the alleged fact that the "science" of surgery, which, singularly enough, is made to be identical with the results of surgical operations, "has not advanced proportionately with the art". Of these two propositions, the first is a matter of opinion; but the second Mr. Erichsen endeavours to prove by producing statistical tables of amputations forty years ago and at the present period, and showing that the average mortality remains somewhere about the same.* He then passes on to consider the causes of death, which he divides into four classes: 1. The direct effect of the operation itself; 2. Complications which he does not accurately define, but of which he names tetanus and secondary hæmorrhage; 3. Shock; and 4. Septic diseases. Dismissing the two first as unimportant, he discusses the proportion of deaths caused by the two latter respectively; then tries to prove that septic diseases are generated almost exclusively by hospital influences, and accordingly proposes to use the term hospitalism as expressing those influences which lead to the production of septic diseases in hospitals. Then he inquires into the mode in which such diseases are produced, and comes to the conclusion that they are due to overcrowding, or rather to the presence in the wards of too large a number of severe wounds; and he concludes by endeavouring to lay down rules for the construction and management of hospitals, whereby such overcrowding may be prevented, all accidental contaminations avoided, and the healthy union of wounds be secured.

Reduced to this bare outline, there is little in Mr. Erichsen's work that is novel. Much of it consists of the mere *loci communes* of hospital management. But what gives this work its importance is the unreserved support which Mr. Erichsen gives in it to the theories and conclusions of those who teach, with Sir J. Simpson, that hospital practice is, as a rule, and apparently necessarily, more fatal than private practice; to express which theory, Sir J. Simpson first invented the term hospitalism, and to support which he produced the tables which, in his original lecture on the subject, Mr. Erichsen quoted to his class as if they were authentic and uncontested facts, and as if they necessarily proved the proposition. In this book, Mr. Erichsen has accepted what everybody knows to be the real state of the case—viz., that the accuracy of Simpson's facts, as far as private practice is concerned, is open to very grave doubts; and that, if the figures were admitted to be accurate representations of fact, the inference which Simpson drew from them by no means necessarily follows. Yet Mr. Erichsen does not even now appear to appreciate the nature of the objections which were taken to Simpson's figures. He seems to think that some one has charged either Simpson or his correspondent with falsifying the numbers—a notion which, as far as we know, was never entertained. What really was said was, that the lists of amputations in private practice which Simpson collected were open to all the sources of inaccuracy, except wilful falsification, to which figures could be liable; and that the chief objections to them were, that they were a collection of a mere sample of cases out of a much larger number, very probably reported in many instances on account of their unusually successful result, and, therefore, not necessarily a fair sample, nor available to calculate averages from; that there was no guarantee that they represented in every case (or even in any case) the total experience of their authors; that they were composed in a large proportion of single successful cases, or of very small numbers of successful cases, whilst it was notorious that an unknown proportion of single unsuccessful cases had occurred and might have been reported, and, if so, would have seriously affected the numerical result; and that many of the longer lists were derived from exceptional classes of practice, such as mines, collieries, etc., and had no bearing on the average result of common country, still less of common town, practice. And Mr. Erichsen does admit that Simpson's "figures may not be absolutely correct". But, if they are not, what is the good of them as figures? How are we to know what the limits of the error are? Far more important, however, than any numerical considerations, is the indisputable fact that Simpson's tables, even if they were admitted to be accurate, were not connected by any process of reasoning with his conclusions; and this is most unreservedly admitted by Mr. Erichsen in the following passages. Simpson "may not be equally correct in the conclusions at which he arrives as to the causes of the difference in result between hospital and private practice, based upon these statistics; for undoubtedly the difference in the rate of mortality may have been dependent to a great extent upon the difference in the constitution and condition of the patients before they underwent the operation, rather than to the influences to which they were exposed after being subjected to it. In fact, we may use the figures, but discard the inferences drawn from them" (p. 50). "To what extent this amputation-mortality in civil hospitals differs from or exceeds that which occurs in private practice, under conditions that are in all respects, except those of hospital influences, similar to those that occur in the hospitals, we have as yet no data to determine" (p. 51). But, if this be the case, such figures as Simpson's are useless; and accordingly we find that Mr. Erichsen in this volume practically abandons the argument drawn from those figures, though we believe we are correct in saying that it was the main argument of his introductory lecture; and he avows his total disbelief of one of Simpson's conclusions—viz., as to the insalubrity of large, as compared with small hospitals—although that conclusion was reached in exactly the same way as the one about the greater mortality of hospital, as compared with private practice, and rested on the very same grounds.

We may dismiss, therefore, as far as Mr. Erichsen is concerned, any further consideration of these exploded statistics, merely regretting that he should ever have produced, as being valuable and authentic, what so very few persons now regard as being either the one or the other.

Let us see, then, what new proofs Mr. Erichsen offers of his conviction that the mortality of the same operations in hospital much exceeds that in private practice. These proofs rest mainly, as far as we see, on general impressions which Mr. Erichsen and some of his friends entertain to the effect that pyæmia hardly exists in private; and those which are most worthy of attention in this category are two examples which are produced from Lincoln and from Norwich, in both of which places pyæmia was, or perhaps we should say is, prevalent in the town-hospital, whilst it is said to be absent from the private practice of the town and its neighbourhood. Accordingly, Mr. Erichsen classes those hospitals as "pyæmia-stricken"; declares that nothing but demolition will suffice to cure the tendency to this dreadful complaint; and, by implication, he flourishes the pickaxe over our hospitals generally. "In fact," he says, "just as the cattle-plague had to be 'stamped out' by the pole-axe, so has the infection of a pyæmic hospital to be destroyed by the pick" (p. 99). As he has laboured through the whole book to show that all hospitals become "pyæmic" (if by this term is intended that they are liable to outbreaks of pyæmia) whenever they contain too large a number of acute suppurating wounds in any ward, the inference must be, that all our existing hospitals should be destroyed. Mr. Erichsen, of course, does not mean this; at least, we assume that he does not, or he could not continue to practise surgery in such a hospital. But Sir J. Simpson, had he been alive, would undoubtedly have drawn this conclusion; and it is one which will very probably be drawn by some of the many lay critics of our hospital system who have been imposed upon by the great reputation of Sir J. Simpson's name. Yet what support does this theory derive from the instances stated? The hospitals both of Lincoln and Norwich are old buildings, constructed for the requirements of a different age, when operative surgery was far less active than it now is. Neither hospital was fitted for the reception of a large number of acute surgical cases, as was fully pointed out many years ago in the Report on Hospitals issued by the Medical Officer of the Privy Council (1863, pp. 655, 658). That there will be danger of pyæmia, erysipelas, phagedæna, or even hospital gangrene, when too many acute cases are crowded into an inadequate building, is no new discovery. It is true; but it furnishes no reason for a sweeping accusation against all hospitals, good or bad. However, Mr. Erichsen lays great stress on the supposed absence of pyæmia from the town at the time that the hospital was thus "stricken". This fact rests merely on hearsay evidence; Mr. Lowe in one place, and Mr. Cadge in the other, having each said that they had not seen a case. But it may easily be seen how little such evidence is worth in forming a comparison. In the first place, the operations and injuries which are generally followed by pyæmia are in very large proportion in hospital, and comparatively very rare in private practice. As the recent discussions and the frequent mention of pyæmia in hospitals has obviously propagated a very erroneous notion on this head, leading to the impression that our large hospitals are constantly full of pyæmia, we may be allowed to remind the reader that, in the Report above referred to, the percentage of fatal cases of pyæmia, as compared (1) to the total number of deaths and (2) to the total number of patients, was calculated for a given period in three large London hospitals—viz., Guy's, St. Thomas's, and St. George's—which were selected, not from any peculiarity in their circumstances (since they are, as far as is known, as liable to pyæmia as other metropolitan hospitals), but mainly because all the cases, with very few exceptions, were examined after death, and the particulars carefully recorded. The deaths from pyæmia were found to be 1.23 of the total number of deaths, and .115 per cent. of the total number of patients. We may say, then, that (even allowing for cases of pyæmia which recover) this disease is not present in much more than 1 in 1,000 hospital patients, medical and surgical, even when the cases are so severe as they are in a great metropolitan hospital. Considering the relative severity of private and hospital cases generally, the disease would, of course, be far less prevalent in private, even if all other circumstances were exactly the same. We should, therefore, want something more than the experience of any one man, even if his experience had been recorded with all the precision of a hospital register, before we could admit that pyæmia was really absent from a given town. Mr. Hewett has lately given us examples of the occurrence of pyæmia not only in town private practice, but even in the most salubrious rural situations. Mr. Jonathan Hutchinson has even recorded cases in his own experience occurring amongst ewes in a field. And we must say that our own experience differs greatly from that of Mr. Erichsen, who says that pyæmia is rarely, if ever, seen after operations in private; and that very few cases are admitted into hospital from outside. Pyæmia, as Sir J. Paget remarked at the recent discussion at the Clinical Society, follows most commonly in hospital practice after operations and injuries which are rare in private. But it must not be forgotten that that great surgeon gave it as his experience that there was no very appreciable difference in the prevalence of pyæmia in the two classes of practice; and we must say that we are a little surprised that Mr. Erichsen makes no definite allusion to a statement so very important as this. And the fact which is now admitted, that erysipelas is common enough out of hospitals, surely justifies our scepticism when the other closely allied diseases, septicæmia and pyæmia, are said to be almost confined to hospital practice. It was a very short time since the fashion to talk about "hospital erysipelas", as if erysipelas does not prevail in private also; just as Mr. Erichsen wishes to introduce the term "hospitalism" in order to convey the impression that pyæmia only prevails in hospitals.

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* We should certainly have thought that the science of surgery was concerned chiefly with diagnosis and treatment; and that, in proportion as these are more successfully cultivated, more and more of the slighter cases which used to be operated on are cured without operation. That the mortality after operations should in such circumstances even increase instead of diminishing, is logically quite consistent with any amount of progress in the science.

We cannot, therefore, accept Mr. Erichsen's instances of the Lincoln and Norwich hospitals as proving more than that those hospitals are not very properly constructed for the reception of large numbers of acute surgical cases—a fact so little new to us personally, that we put it on official record eleven years ago with regard to both institutions. That a hospital, otherwise well conducted, must be destroyed if it once become "pyæmia-stricken", is a notion which Mr. Erichsen himself sufficiently refutes by showing that outbreaks of pyæmia have occurred in large hospitals in London and elsewhere long ago, and that these same hospitals are now working in all respects successfully. In fact, if Mr. Erichsen be correct in believing that pyæmia is generated mainly by the accumulation of too large a number of acutely suppurating wounds, the method of eradicating it is obvious.

The other proofs on which Mr. Erichsen relies to show that hospitals are less healthy than private houses are three. The first is, that ovariotomy cannot be successfully practised in general hospitals. We would only concede that ovariotomy has not as yet been practised there with success. But, even allowing that it cannot (which is probable enough), this would only show that the wound or the patient after an ovariotomy is liable to so many disturbing influences, that the woman cannot be safely exposed to the risk of contagion from neighbouring wounds, or that of being dressed by persons who are in charge of other cases. Nothing of the sort has been shown for any other class of cases, unless we admit Mr. Erichsen's second class, that of puerperal women; and, with regard to this class of cases, Mr. Erichsen reproduces the figures of Lefort and the assertions of Simpson, apparently with no idea that anybody has ever doubted them. In fact, after stating Lefort's figures, which give a mortality after childbirth of 1 in 212 in home-practice and 1 in 32 in hospitals, he says: "Simpson, whose authority on such a subject as this cannot certainly be questioned, however much it may be impugned by some in more strictly surgical matters, cites these figures in order to show the greater danger to life which women undergo who are confined in lying-in hospitals" (p. 42). Mr. Erichsen appears to be quite unaware that, so far from Simpson's authority and Lefort's figures being unquestionable, one of the ablest of Simpson's own pupils, Dr. Matthews Duncan, has undertaken to show the utter incredibility of Lefort's figures, and has expressed his firm conviction that the mortality of 1 in 212 attributed to general practice in women's own homes and in dispensaries is considerably below that which prevails in the practice of the best accoucheurs and amongst the richest families—considerably below, in fact, what prevailed in Sir J. Simpson's own practice, which, he tells us, was published for two years, and was 1 in 45 at least (*The Mortality of Childbed and Maternity Hospitals*, by Dr. Matthews Duncan, p. 115). Further, Dr. Matthews Duncan endeavours to show that, in *well managed* maternity hospitals, the results are not inferior to those obtained in private practice. We pronounce no opinion of our own on the subject; but it is hardly open to an author to discuss such a question as this unless he has made himself somewhat more familiar with the matter than Mr. Erichsen is.

That it is imprudent to establish a maternity ward in a general hospital, is a very different thing. This may be so; in fact, it seems agreed on all hands that it is. But the inference would be, not that general cases succeed worse in hospital than in private practice, but that puerperal women are more liable to accidental contaminations than ordinary cases are, and that they cannot safely be attended by the same nurses and students. Mr. Erichsen gives some facts on pp. 81, 82, to show that, while lying-in women in "the Maternity" of Vienna died in large proportion when attended by students who took no special precaution, yet, when all possible precautions were taken to ensure the personal cleanliness of all persons brought into contact with the patients, the mortality fell to a ratio which Dr. Matthews Duncan, at any rate, would probably regard as not very unsatisfactory, though far below the success alleged in Lefort's figures from private practice. Surely, at this period of the controversy, we ought not to be called upon to refute arguments based upon data which have long since been shown to be untrustworthy. Yet Mr. Erichsen does not disdain even such contributions as that of Dr. Farr, who in 1861 published a table professing to show the mortality per cent. (of beds) in the hospitals in England and Wales containing over 300, between 200 and 300, between 100 and 200, and under 100, inmates respectively; and, after showing that the total death-rate in the first class was about double that of the fourth, deduced the enormous inference (which Mr. Erichsen quotes quite contentedly, as if he saw no fallacy in it) that "the *mortality* of the sick who are treated in the large general hospitals of large towns is twice as great as the mortality of the sick who are treated in small hospitals in small towns" (p. 86); Dr. Farr being, as was abundantly shown at the time, so utterly unacquainted with the question as not to have learnt that the general death-rate in a hospital has nothing to do with the mortality of any special class of cases. The death-rate of large hospitals is larger than that of small hospitals when (as is usually the case) their rules sanction the admission of a severer class of cases on the medical side, and when their surgical practice is also more active—*i. e.*, deals with more dangerous cases. When these conditions are similar, there is no proved difference in the death-rate of large or small, country or town hospitals. Nothing is more singular in this book than the calmness with which exploded fallacies of this sort are offered to the reader as if they were really valuable and almost novel.

Another presumptive proof which Mr. Erichsen offers of the unhealthiness of hospitals, is some hasty observations by Mr. Berkeley Hill as to the superior results obtained during the Franco-German war in the treatment of the wounded in huts or out in the open field, as compared with those in permanent buildings. This may be true, though Mr. Hill's opportunities of ascertaining its reality were obviously far too limited to prove it; yet it may prove nothing beyond the well known fact that, in war, permanent buildings, to which wounded men are sent from all quarters, are apt to be so overcrowded that they become unfit for use. When this is the case, patients no doubt are more satisfactorily treated elsewhere; but the use of hospitals cannot be depreciated by any ill effects which may have followed from their abuse.

To sum up the whole: Mr. Erichsen has not, we submit, proved by any trustworthy evidence that the so-called "hospital" diseases prevail in hospitals in any greater proportion than they do out of hospitals; nor has he adduced one new fact of importance bearing on the controversy. Indeed, by relying on arguments long since proved to be fallacious, he seems to show that he has not studied the question so fully as a man in his position ought to have done before addressing the profession on so important a subject. If this be so, we fail to see for what purpose he should have revived the mischievous term which Sir J. Simpson coined when he wished to decry and to destroy our present hospital system. The word "hospitalism" is a very good one for the purposes of its inventor. He wished to give a bad name to the dog whom he would fain see hanged. Dreaming of the possibility of transforming our present hospitals into villages of nomadic tents, he wished to prove that there is an inherent and necessary vice in a large permanent building used for hospital purposes, which increases in proportion to its size, and becomes more deadly in proportion to its age; and this he signified by the name of hospitalism. But Mr. Erichsen means something quite different; although, when he first spoke on the subject, it was so ambiguously, and he used Simpson's arguments so unhesitatingly, that he was universally taken to be in all respects his disciple. Now, however, he only means by hospitalism the indubitable fact that, by mismanagement or overcrowding, a hospital may become unhealthy; and he fully admits —nay, the only valuable part of his book (if we may be excused for saying so) is that in which he elaborates the fact—that, by taking certain precautions, the nature of which has been perfectly well known for very many years, the results of hospital practice may be indefinitely improved, and may even equal, if not exceed, all that has ever been asserted (though it has never been proved) to be reached in private practice. These precautions may be summed up in two words—cleanliness and space; including in the first not only the precautions as to the cleanliness of the buildings and of the surroundings of the patient, and as to the purity of the air, to which hospital authorities pay (and deservedly pay) so much attention, but also the cleanliness of the personal attendants and of the dressings, to which, we fear, less attention is ordinarily directed, though it is a point of equal importance with the other, to say the least; and including in "space" not merely superficial and cubic space, but also the proper separation from each other of acute, as distinguished from chronic surgical cases, so that there may not be more than a certain small average number of cases of acute suppuration in the same ward—a number which must be settled by experience. To these precautions, Mr. Erichsen adds others, which our space forbids us to enumerate, and which seem of less proved importance. For instance, he admits, on the same easy rules of evidence as he admits so much else to the detriment of a hospital, that the upper floors of hospitals are less healthy than the lower, which we believe to be contrary to the experience of most hospital managers; and he seems to have far stronger views of the contagiousness of erysipelas than facts warrant, and on that account to sanction the plan of "erysipelas-wards"—a plan by which it seems very probable that the slight and weak contagion may be intensified and made more formidable. But all these are minor matters, and they have all been treated much more fully than in the volume before us. The real point of importance is that which Mr. Erichsen's title brings, as it must bring, to the mind of every one. Is it, or is it not, true that our hospitals are the seat of a distinct plague, which interferes with the success of surgical treatment, and which is unknown, or nearly so, in private practice? Is it true, or not true, that no steps have been taken to abate this plague, or, in other words, to improve the results of hospital treatment, during the last half-century? On both heads, the evidence which Mr. Erichsen gives in support of the theory of his book is so flimsy, that we cannot understand why he should have thought it necessary to publish it. In order to prove the insalubrity of our hospitals, he takes only the old test of the results of amputations, though so experienced a hospital surgeon cannot but see and admit that the results of amputations depend far more on the antecedents of the operation than on its sequelæ—far more on the nature of the cases selected than on the atmosphere in which they are treated. Thus Mr. Erichsen truly says that the statistics of amputations in our large hospitals might be much improved by not amputating in severe smashes high up in the thigh; and he announces his resolution to avoid amputating in such cases in future. But surely the surgeon's duty is to think of his patient, and of him only, not of any statistics, or of anything that may be said out of doors; and so long as there is any hope, however faint, that ever so small a proportion of injuries, *which are otherwise surely fatal*, can be saved by amputation, we are sure that the practice will be, as it has been and ought to be, to give the patient the feeble chance which is all that is left him. The analogy, quoted in this book, of the avoidance in military practice of primary amputation high up in the thigh, does not apply. Such amputations are contraindicated, because the patient is found to have a better chance of life by avoiding or delaying the operation. If Mr. Erichsen could show that a man with his thigh totally smashed ever recovered without amputation, or that there was any chance of successful secondary amputation, the rule in civil surgery would be similar. Till this is shown, such cases ought, on every ground, to be treated by amputation. Mr. Erichsen speaks of primary amputation as adding the shock of an operation to that of an accident; but the fact is, that the operation usually causes no shock at all, and relieves the patient from the encumbrance of a mangled and lifeless limb. This was strikingly shown in a case in which the present writer amputated at the shoulder-joint and just below the hip simultaneously in a case of railway smash, and where the pulse was better after than before the operation, and the patient felt no inconvenience whatever from it. It is plain, however, that such operations will not commonly be done in private, since the patient's friends will not sanction it, nor will the surgeon recommend it; and generally it may be said truly, and with no wish to cast discredit on private practitioners, that the less promising cases are not operated on in private, whether the operation be amputation or any other, from the natural desire of the surgeon to avoid unsuccessful operations, and from the unwillingness of the patients or their friends to sanction any operation which the surgeon cannot speak of in the brightest terms. For this reason amongst many others, the results of private operations, even if they could be correctly ascertained, could not be compared on fair terms with those of hospital practice; and yet, in the lectures which appeared in this JOURNAL, and from which the volume before us is only a reprint with slight alterations, Mr. Erichsen distinctly admitted that the results of amputations in hospitals could be, and even had been, brought to the same level of success as Simpson claimed (though he failed to prove it) for private and country practice.[*] We pointed out at the time that, if this were so, "hospitalism" can have no existence; and Mr. Erichsen seems to admit the justice of the criticism, for the passage is withdrawn in the present issue of the lectures. But the fact cannot be withdrawn; and it is as inconsistent with Mr. Erichsen's main proposition, that there is an essential difference between hospital and private practice, as it is with his collateral assertion that hospital surgeons acquiesce in their ill success, and make no efforts to amend the results.

But, if it be true that the results of practice in our hospitals are so much inferior to those in private practice, why cannot it be shown in some more simple cases, less liable to sources of fallacy, than amputations? The present writer made some collections of the period required for the union of simple fractures of the lower limb in large hospitals (contained in the Report above alluded to), which certainly did not show any evidence of the delay of union which we should have expected from residence in an atmosphere loaded with the seeds of death. The success of operations on children in our hospitals is very great; yet children would, we should expect, be the first to attract the germs of contagion supposed to be freely floating about our wards. Plastic and minor operations succeed almost uniformly when performed in hospitals on favourable patients and under favourable circumstances, whilst their success out of hospitals is by no means uniform; and there are few hospital assistant-surgeons who do not regard the operations which they perform on out-patients as more dangerous than those of a similar nature which they perform in the wards.

Such are some of the many reasons which make us reject Mr. Erichsen's theory of hospitalism, so far as that theory is definitely formulated; that is to say, we deny that it has either been proved or shown to be highly probable that septic diseases prevail in well managed hospitals to a greater degree than in private practice, allowing for all the many differences between those two classes of practice; and we also deny emphatically that hospital surgeons "remain content", as Mr.

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[*] By the last statistics, it would appear that during the past three years at St. Bartholomew's Hospital, as low a rate as 18 per cent. has been obtained; and Mr. Callender, by the admirable method of treatment of stumps which he has for some time past adopted, appears to be likely to reduce this rate of amputation-mortality to a lower level still; in fact, to bring it within the limits of Simpson's returns from country and private practice. (From Mr. Erichsen's Lecture in BRIT. MED. JOUR., Jan. 24th, 1874, p. 100.)

Erichsen insinuates, "with losing from one-third to one-half of all their amputation cases, and nine-tenths of some". On the contrary, we affirm, as the result of over a quarter of a century's close attention to the subject generally, and familiarity with the details of the management of a large surgical hospital, that the results of our hospital treatment are constantly and steadily improving, though such improvement may not be easy to prove from death-rates, which, indeed, are susceptible of so many interpretations, that it is difficult to prove any definite conclusion from them. We are far from denying that there are and must be risks connected with the aggregation of cases. It is theoretically in the highest degree probable that patients would have a better chance of recovery if each could have a separate chamber of proper construction, a separate nurse, and, let us add, a separate surgeon; but, as that is impossible, we know of no arrangement on the whole superior to our present hospitals, of which the great urban hospitals are, in our judgment, by far the best examples; and we believe that cases are treated in them with quite as much success as elsewhere. We will add, without fear of contradiction from Mr. Erichsen or anyone else, that the authorities of these hospitals have at all times been ready and anxious to make public every detail both of the treatment of cases within their walls and of its results; and that they have never opposed the introduction of any improvement either in construction, management, or treatment, but, on the contrary, have been, and continue to be, eager in the search for any means by which their patients' security can be promoted; and we say that nothing but harm can be done by a publication which tries to instil a different impression into the mind of the public, particularly when it is the work of an eminent hospital surgeon.

JOURNAL OF THE CHEMICAL SOCIETY; containing the Papers read before the Society, and Abstracts of Chemical Papers published in other Journals. Edited by HENRY WATTS, B.A., F.R.S. London: J. Van Voorst. 1874.

THE current year is the fourth in which a great addition to the value of the *Journal of the Chemical Society* has been made by the publication therein of well-digested abstracts of all the more important papers relating to chemistry that have appeared in the various continental and other scientific periodicals. The abstracts are grouped together under the heads of General and Physical Chemistry, Inorganic Chemistry, Mineralogical Chemistry, Organic Chemistry, Physiological Chemistry, Chemistry of Vegetable Physiology and Agriculture, Analytical Chemistry, and Technical Chemistry. In this way a means is afforded to all subscribers to the Society and to all Fellows of becoming acquainted with the general progress of chemical science without the necessity of encountering the great fatigue and loss of time required to wade through the enormous mass of contemporary scientific literature. The abstracts are prepared by a number of gentlemen connected with the Society, their labours being superintended by a committee of publication. A glance at the titles of the departments into which the work is divided will show that a large number of the subjects treated of are of peculiar interest to medical men. To those of our readers who desire to become acquainted as speedily as possible with the advance made in these subjects, and to possess succinct epitomes of the experimental results obtained by the various workers in these fields, we cordially recommend these volumes.

NOTES ON BOOKS.

Hints for Health; being two Lectures on the Influence of Air, Water, Food, and Wine on the System. By J. SHERWOOD STOCKER, M.D., London, Physician to the Western General Dispensary, etc. J. and A. Churchill, London: 1874.—Dr. Stocker appears to have treated his audience, a mixed one, to the recital of a great number of important sanitary facts; a sound knowledge of which, if diffused throughout the country, would add vastly to the public weal. As now published, these two lectures form a very readable *brochure*, which contains information upon domestic and personal hygiene that many a doctor, with the welfare of his patients at heart, will be glad to place in their hands. Indeed, the proper sphere of usefulness for the work is the lending library; it is not intended for the shelves of the doctor's sanctum. The lectures briefly set forth the requirements of the community and individual respectively with reference to light, air, water, solid foods, alcoholic drinks, warmth, clothing, and mental and bodily occupation, and tell of the sad consequences that arise from neglect of simple sanitary laws respecting such matters. As the work comprises only forty six pages, it is quite impossible for the author in so narrow a compass to enter very fully into all the above-cited topics. Still, should a second edition be ever required, we would suggest that a classification of foods might be advantageously added, and the necessity of taking the various articles of diet (especially the nitrogenous), in their due proportions, insisted upon; whilst, in order not to lengthen the work, the information concerning the manufacture of wines might perhaps be somewhat curtailed.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 1ST, 1874.

THE PROPORTION OF WOUNDED IN WAR.

AN article that is likely to attract attention, on account of the importance of the subject on which it treats, viz., the amount of transport required for the removal of wounded in modern battles, has just appeared in the *Kriegerheil*, the organ of the German Aid Societies for help to wounded soldiers, published at Berlin. It is written by Surgeon-General Dr. Berthold, who was surgeon-in-chief of the 10th German Army Corps during the Franco-German War, and who, in that capacity, was present in several important engagements. In the course of his remarks, Dr. Berthold compares his own experience, during that war, on the amount of transport required for the wounded resulting from great battles, with the views on the same subject published by the Russian Surgeon-General Pirogoff, who was principal surgeon of the Russian armies during the Crimean war, and also with an estimate for transport made not long since by our English War-office committee, of which Inspector-General Dr. Lawson was president. Dr. Berthold asserts that the estimates of Dr. Pirogoff, as well as that furnished by Dr. Lawson, are unnecessarily high; but, so far as Dr. Lawson's estimates are concerned, the different organisations for the medical service in the field which exists in the German army, from that which has hitherto existed in the British army, appear to have led Dr. Berthold into error respecting the purposes which the transport, calculated for by Dr. Lawson, is intended to fulfil. Dr. Berthold, in his calculations, estimates the transport necessary for the work which devolves on the "Sanitary Detachments" only, that is, for the removal of the wounded from the battlefield to the first, or nearest, bandaging station. No establishments analogous to the German "Sanitary Detachments" have ever existed in the British army, so that the English estimates have been formed, not only for meeting the wants provided for by the sanitary detachments, but also for meeting those which devolve on the field hospital establishments, and on the Etappen command, in the German army, in addition. Dr. Berthold's calculations refer to the wants which require to be met within a radius of about one mile in rear of the combatants, while Dr. Lawson's were made to meet the wants which have to be met within a radius of five miles or upwards in rear of the combatants. This great difference in the extent of area over which the transport named in the respective calculations is designed to operate, and in the purposes which it is intended to serve, destroys the value of the comparison which has been instituted by Dr. Berthold between the respective estimates.

But, in the course of his remarks, the author of the paper under notice mentions some facts, which are not without general interest, in respect to the number of wounded in the Army Corps to which he was attached during the Franco-German war. His observations have led him to conclude that the number of wounded troops never exceeds the figure of ten per cent. of strength in the severest fights, and that of this percentage of wounded from thirty-eight to forty per cent. is the highest ratio of men wounded so severely as to require to be carried off the battle-field. On the other hand, the committee, of which Dr. Lawson was president, found that they could not estimate for less than sixteen per cent. of the strength as the probable number of wounded after a great action. The committee also calculated that about half the wounded would be able to make their way on foot to the nearest dressing station, leaving eight per cent. of the fighting strength, or fifty per cent. of the wounded, to be carried on stretchers to the dressing stations and in ambulance wagons to the field hospitals. The committee reported that their estimates were formed on the results of the battles during the late war of the rebellion in the United States, and of the Austro-Prussian campaign of 1866, the statistics of the Franco-German war not being available for reference at the time.

Dr. Berthold mentions that the heaviest day to the Tenth Army Corps, about 30,000 men, during the war, was August 16th, when, in the battle near Mars-la-Tour, the corps lost 4725 men—viz., 1128 killed, 2889 wounded, and 708 missing. On this occasion even, the number of wounded was less than 10 per cent.—viz., 9.63 per cent. These numbers agree with those given in Engel's statistical tables (*Die Verluste der deutschen Armeen im Kriege gegen Frankreich*, Berlin, 1872, p. 112). But, by the same tables (see p. 111), the Third Army Corps, on August 16th, in the battle near Mars-la-Tours, or, as it is called, the battle at Vionville, lost 6838 men, of whom 1432 were killed, 5122 wounded, and 284 were missing. Taking the strength of this army corps at 30,000 men, the wounded would amount to 17 per cent.; and even supposing it to be of its original strength when first mobilised—viz., 35,085 men (Engel, p. 287)—the percentage of wounded to strength would be upwards of 14½ per cent. Again, at Gravelotte, on August 18th, the Guards Army Corps (Engel, p. 113) lost 8119 men—viz., 1959 killed, 6016 wounded, and 144 missing. The Guards Army Corps was stronger than the two corps before named, but its strength on the morning of the 18th of August is not stated. Engel gives its strength when first mobilised as 43,664 men; and supposing the whole of this strength to have been present and engaged on August 18th, which could not have been the case, the wounded would have been over 16 per cent. of the number. Dr. Berthold's statement that the number of wounded never exceeds 10 per cent. of strength in the severest fights therefore requires some further explanation. Perhaps he refers to the strength of the whole army under command, though he does not say so; but, were this the case, it would be fallacious to place the circumstance of the huge continental armies raised by conscription on a par with those of the comparatively small armies raised by voluntary enlistment in Britain. Generally, when a British army operates in the field, the troops, being comparatively small in number, all become actually engaged, and probably continue more or less engaged throughout the whole duration of the battle. But when armies of 300,000 men are assembled as at Solferino, or over 400,000 as at Königgrätz, and such armies as were occasionally brought together in the Franco-German war, it is hardly possible for all the troops to come into actual conflict with each other. In the Appendix to the *Treatise on the Transport of Sick and Wounded Troops*, by Deputy Inspector-General Longmore, there are several tables showing the proportions of casualties in battles. These tables show how greatly the proportions of wounded vary according to the strength of the troops brought into the field, and the varying duration and other circumstances of particular battles. At Waterloo, the comparatively small British army of 24,000 men being all engaged, and constantly so throughout the day, lost more than a fourth of their number—viz., 26.58 per cent., while the wounded amounted to 18.59 per cent. This loss, too, occurred with guns and muskets far inferior in range and precision to those in use at the present day. If a British army be again employed on the continent, the same thing will probably happen again; the British force will not be separated in supports and reserves, as happens in the massive continental armies, but will be all occupied in fighting, and the number of wounded to strength will be increased in proportion. One thing is certain; there has been a remarkably wide-spread resolution of recent years that the provision for the case of wounded soldiers in time of war shall not only be improved in quality, but shall also be adequate in quantity, in proportion to the improvements and multiplication of the means for inflicting wounds. It is fully acknowledged that overrefinements and excess are out of place in this as in all other departments of military equipment. The more the question, what constitutes necessary help and what excess, is discussed, however, the better. To settle this question, the probable amount of need must be first determined, or, in other words, the probable ratio of wounded that will require help on the occurrence of general actions in modern warfare. When all the circumstances of a British army are considered, and especially the fact that it is not the custom for it to rely on a system of requisitioning, as some armies in a great measure do, an estimate for equipment based on a calculation of 16 per cent. of wounded—all wounds, slight and severe, being taken into account—will probably not be found to be unnecessarily high.

ENGLISH REWARDS FOR MERIT IN INDIA.

NOT long ago, we invited the attention of our home readers to the progress of medical literature in India, and to the evidence it affords of life and activity, more particularly in Bengal. We have only to look at the results of the competitive examination in London and at Netley, published twice a year, to see that India commands at the present time the services of the best men in the medical market who seek a career in the public services of the State. For very obvious reasons, the most distinguished of them, having the choice of presidencies, select Bengal. It is the seat of the Supreme Government; its capital is the capital of India, the wealthiest city in the East, and the chief outlet for all the products of the most fertile provinces of the Queen's eastern empire.

Everyone who takes an interest in questions affecting the well-being of the Medical Departments of the Army and Navy, has seen with something like envy that India carries away the ablest men; and that such are the superior attractions of the Bengal Presidency, that the minor presidencies are to a certain extent intellectually starved by the almost invariable preference given by the men who have most distinguished themselves at Netley for the great presidency which offers the highest prizes to their ambition.

The public in India, as well as the profession at home, have lately been startled by the appointment by the Lieutenant-Governor of the North-West Provinces of a young civilian of eight years' standing to the post of acting Sanitary Commissioner of those provinces, during the absence on furlough of Dr. Planck. We do not hesitate to say that this is one of the most flagrant instances of the abuse of power that has come under our notice since India has become a direct dependency of the Crown. It is not merely in the interest of our profession that we denounce this act of Sir John Strachey; it is rather because we believe that this attempt to divorce sanitation from medicine is full of danger to the public health. It is, from every point of view, a retrograde step, without any justification from necessity; and it is the more to be condemned because of the cynical manner in which its author, by this act, declares openly that the aggrandisement of his class is, in his opinion, a matter of more importance than the welfare of the people committed to his care.

We have said that this appointment had no justification in necessity. In proof of this, we refer to our opening statement, which shows that the Governor had at his command the services of men specially trained for such duties as are required at the hands of sanitary commissioners properly so called—men who first and foremost are physicians and pathologists; who, moreover, have had special training in all that relates to public hygiene under the greatest living master of this branch of knowledge. If Sir John Strachey be right in this matter; if any young civilian of eight years' service, who, if his life depended on the issue, could not distinguish one disease from another, chemically examine the purity of air or water, or tell the difference between one soil and another; who knows nothing of food or its adulterations, or the processes for detecting them; who never bestowed a thought on the principles that should govern the selection of sites for human habitations, their mode of construction and ventilation, from a sanitary point of view; in one word, who is ignorant of all that is comprehended in the modern acceptation of the term *hygiene*—be fit to be a sanitary commissioner, to supervise the work of health-officers under him, and, above all, to advise the Government he serves on all questions affecting the public health, what can justify the expenditure of public money in maintaining such an establishment as the Army Medical School at

Netley, when the work can be done by any man recently escaped out of the hands of the Civil Service Commissioners, crammed with a little of everything except a knowledge of disease, its causes, the means by which it is propagated, or by which it may be prevented?

The medical officers of India are outraged and insulted by this abuse of power, and, as might be expected, have given expression to their indignation in the public press. The "Competition Wallahs" have not been slow to defend the appointment, and to evince in no small measure that spirit of self-confidence and presumption so well ridiculed by a great satirist; for, judging from some of the letters before us, they are, one and all, ready "to cut for the stone or to take command of the Channel Fleet at a moment's notice".

If it be the desire of the authorities in India to lower the status and injure the *prestige* of the Medical Service of India—to bring it, let us say, to the same low level as the Admiralty have brought that of the Royal Navy—they may take our word for it, they cannot set about their object in a more effective way. Let it once be understood in the schools and universities that the measure meted out to the service by Sir John Strachey is henceforth what the India Medical Service has to look to, and the supply of men like Goodeve, Chevers, Fayrer, Morehead, Cornish, the Cuninghams, Bryden, Macnamara, and, coming to later days, McConnel, Macleod, and Crombie, will be dried up at its source. It is easy to drag a service down by contumelious treatment; but all Sir John Strachey's "horses" and all his "men", even although they be "Competition Wallahs" of the purest water, cannot set it up again.

THE ANNUAL MEETING AT NORWICH.

A GLANCE at the programme of the proceedings, as given in this day's JOURNAL, will show that the forty-second Annual Meeting of the Association promises to be highly successful. One great feature this year will be the Museum, which will contain a remarkable collection of urinary calculi, including the matchless cabinets of stone from the Norfolk and Norwich Hospital. The Excursions will be very attractive; and we observe that at the termination of those arranged for the Friday, a *déjeûner* will be given by J. J. Colman, Esq., in his grounds at Carrow House. As a large number of visitors are expected, the local secretaries are extremely anxious that all members intending to be present should fill up, and send to them without delay, the circular included in this week's JOURNAL, in order that due provision may be made for their suitable reception and accommodation. We, therefore, urge the importance of a speedy compliance with this request.

THE Introductory Lecture at Guy's Hospital Medical School will be delivered this year by Sir William Gull, and will be published in the BRITISH MEDICAL JOURNAL.

DR. THORPE, formerly Demonstrator of Chemistry in Owens College, Manchester, has been appointed Professor of Chemistry at the Yorkshire College of Science. Dr. Thorpe has been engaged for the last four years at Anderson's University, Glasgow.

WE learn from the *Guy's Hospital Gazette* that Messrs. Golding Bird and Jacobson have been appointed Assistant-Demonstrators; that Mr. Frederick Durham is to be Surgical Registrar; and that Mr. Davies-Colley will take the Operative Surgery Class. We hear also that Dr. Goodhart has joined Dr. F. Taylor in the post of Medical Registrar; and Dr. Taylor has been appointed Dean to the School.

UNWHOLESOME MEAT.

AT Worship Street Police Court, Edwin A. Cusans attended upon an adjourned summons, charging him with having in his possession a quantity of unwholesome meat. The meat in question, between forty and fifty stone weight, was seized on the 1st instant on the premises of the defendant, who carries on business as a sausage and saveloy manufacturer at Duncan Steam Works, Duncan Road, Hackney. The evidence showed that the meat consisted of "clods" and "stickings," and was "clammy," "wet," and "smelling." There was also a taint of "physic" about it, as if the animal had been physicked just before death. In one part of the meat there was a large abscess. Dr. Tripe said that in all the dissecting-rooms he had been in, he had never experienced so horrible a smell. Mr. Bushby said he would treat it as a first offence, and he therefore inflicted only a quarter of the maximum penalty for each piece seized, making in all £90. In default of payment, the defendant was sentenced to a month's imprisonment, without hard labour. William Cusans, who was stated to be a brother of the last-named person, next answered a summons, charging him with having in his possession unwholesome sausages, saveloys, and sausage-meat, intended for human food. The defendant carried on a sausage-making business at Hope Cottages, John Street, Shacklewell, and the stuff in question was seized by the sanitary inspectors for Hackney. The defendant then said that he intended to work it up again with fresh materials into new sausages. The stuff was in a horrible state, but the defendant ate a small portion to prove that it was wholesome. Dr. Tripe said that if it had been worked up with any fresh matter, all would have been bad in thirty-six hours. Mr. Bushby said there was no doubt that the defendant was aware of the state of the meat, and he would be committed to prison for one month without the option of paying a fine.

EPSOM COLLEGE.

THURSDAY, July 23rd, was Founder's Day at Epsom College, when the usual annual proceedings took place, including the breakfast for past and present prefects, a special choral service in the chapel, luncheon for the members of the Council, and another for the visitors, the speeches by the senior scholars, distribution of the prizes for the year, and the final dinner of the term, at which the boys were joined by the masters and old prefects, who remained to listen to the songs and choruses with which the day closed. The prizes were distributed by the Bishop of Winchester, the Visitor to the College, who made an excellent speech on the occasion, congratulating the head master, Dr. West, on the present prosperity of the school and the admirable spirit of emulation which in all departments animated the scholars. The Bishop addressed a few kind words to each prize-taker, but said that he hoped the mere fact of having gained a prize would not permit any one of them to rest upon his oars, otherwise it would prove to be injurious rather than beneficial. On the following morning, the scholars, numbering over two hundred, left the College for their six weeks' autumn holiday. From a list of appointments and honours gained during the past year outside the College walls by Old Epsomians, which was read at the distribution of the prizes, it would appear that the gentlemen educated at Epsom are well able to hold their own in the world. Founder's Day, in 1873, was almost the last occasion on which the late lamented Bishop Wilberforce appeared in public; he then confirmed some of the scholars and distributed the prizes. A few days afterwards, he met with the sad accident which caused his death.

THE EPIZOOTIC OF CHARBON AT BERLIN.

PROFESSOR VIRCHOW has published the following remarks on the epizootic recently prevailing among the deer at Grunewald, near Berlin. It has been established by inquiry that what we have had to deal with is true charbon (*Milzbrand*) and not poisoning, as was stated. Both macroscopic and microscopic research has shown in the deer all the characteristic signs of charbon; especially the presence of minute microscopic organisms (bacteria) in the blood, spleen, and other parts. Inoculation of healthy rabbits with the infected parts was followed by their death in a very short time. A very small quantity of lymph killed a rabbit in twenty hours; a drop of blood from this rabbit, introduced into a wound in another rabbit, had the same effect. Death was attended with spasmodic suffocative attacks, as in cholera. The charbon poison thus appears here in its most terrible form. There is a certain connection between it and the above-named vegetable organisms, which have therefore been regarded as its cause. On the other hand, the fact appears to be that the organisms themselves are not the poisonous bodies; but that they rather only engender the poison. It is therefore probably not necessary that they should enter the blood; at least, animals die before any notable number of bacteria can have entered the blood itself. Happily, the epizootic at Grunewald seems to be diminishing. As far as I have been able to ascertain, single animals only have been attacked within the last few days; and there have been for some days no more victims among the protected remnant of the older animals, about two hundred. As in the meantime precautionary measures have been taken by the royal forestal authorities, and disinfection of all suspected places has been ordered, it may reasonably be expected that special danger to the people is averted. It must especially be observed, that it is only the herbivora that are specially liable to charbon; and that man and the dog enjoy a greater, though by no means absolute, immunity. With regard to the communication of the disease by flies, nothing could be ascertained with precision. According to the statement of the forester, which I had no opportunity of proving, these animals also died in a short time.

MORTALITY FROM DIARRHŒA AND SCARLET FEVER.

THE fatal cases of diarrhœa in eighteen large English towns, which in the eight previous weeks had steadily increased from 46 to 429, further rose to 842 last week, against 370 and 325 in the corresponding weeks of 1872 and 1873. In London, last week, the annual death-rate was 25 per 1,000 of the population. The deaths registered during the week were 1,640, including 52 from scarlet fever and 389 from diarrhœa. The 52 fatal cases of scarlet fever, of which 28 occurred in East London, showed a marked increase upon those returned in recent weeks. During the last eight weeks, the deaths caused by diarrhœa have been, in the respective weeks, 22, 39, 56, 68, 86, 129, 238, and 389. Of the 389 deaths registered last week, 334 were of infants under one year of age; and these 389 deaths exceeded the corrected average number in the corresponding week of the last ten years by 129, and compared unfavourably with the numbers returned in the twenty-ninth week of the three years 1871-2-3, when they were 110, 258, and 205, respectively. The mean temperature of the air at Greenwich during the week was 64.4 deg., and 2.8 deg. above the average. Monday was an exceedingly hot day, the mean temperature being 73.2 deg. and 11.8 deg. above the average, and the highest reading in the shade being 91.8 deg.

THE RICHMOND WATER-SUPPLY.

AT the meeting of the Richmond Select Vestry on Tuesday, the question of water-supply being under discussion, considerable amusement was caused by a number of small fish being produced by several vestrymen, which they alleged had been supplied to their houses through the pipes of the Southwark and Vauxhall Waterworks Company. One specimen handed in was declared by the chairman to be a young "crocodile", others said it was a water-lizard. It measured nearly three inches. The vestry are endeavouring to substitute a local scheme for the Southwark Company's supply; but they were advised by a letter from the Local Government Board that there are some legal difficulties in the way.

THE APOTHECARIES' ACT AMENDMENT ACT.

THE following abstract of the Apothecaries' Act Amendment Act (1874) has been forwarded to us by the Society of Apothecaries.

The first section enacts that the Act shall be cited as the Apothecaries' Act Amendment Act (1874). The second section repeals those provisions of the Apothecaries' Act of 1815 which require any member of the Court of Examiners (or any of the five apothecaries to be appointed under that Act for examining assistants to apothecaries) to be a member of the Society of not less than ten years' standing. The same section repeals those provisions of the Act of 1815 which require candidates for examination for a certificate to practise as an apothecary to have served an apprenticeship of five years. The third section enables the Society, with the sanction of the Privy Council, to form part of any conjoint examining board to be constituted under the provisions of the Medical Act of 1858. The fourth section provides for the Society having power in certain cases to strike licentiates off their list. The fifth section saves any existing rights of women to be admitted to the examinations of the Society.

Independently of the power given to the Society to form part of any conjoint examining board, the Act will therefore be found to effect the following important changes. 1. The Society can for the future select their examiners from the whole medical profession, or from any scientific body instead (as formerly), from a very limited class of the members of the Society. 2. Apprenticeship is no longer made a necessary condition required of candidates presenting themselves for examination for a certificate to practise as an apothecary. 3. The Society can strike licentiates off their list on the same grounds as they can be struck off from the *Medical Register*. It may be observed, in conclusion, that no new rights are conferred upon women by the fifth section of the Act.

VICTORIA PARK.

A DEPUTATION from the Victoria Park Preservation Society presented a memorial to the Board of Works on Friday, July 24th, urging upon that body the advisability of purchasing half an acre of vacant land abutting the park, to which it really belongs. Unless immediate steps be taken, this ground will be built upon, which will then materially affect the beauty of the entire park. The sum of £900 is required for this purpose. The matter was referred to committee for consideration.

M. PASTEUR.

THE French Government lately laid before the National Assembly a Bill for granting to M. Pasteur, who retires from his professorship at the Sorbonne in consequence of failure of vision, a national recompense for his important and valuable contributions to science. It proposed to grant him an annual pension of 12,000 *francs* (£480), being nearly the amount of his emoluments at the Sorbonne; the payments to commence as soon as the Bill should be passed by the Assembly. After his death, his widow is to have annually one-half of the above named sum. The Commission charged with the examination of the Bill, in presenting their report on it, recommended the Assembly to approve it on the following grounds.

"In voting the pension, you will accomplish an useful work:—an useful work, because the *éclat* of the recompense granted will arouse the attention of the most careless, and will contribute to the triumph of scientific method over obstinate routine;—an useful work, for the learned, recognising the anxiety of the representatives of the nation and assured for the future, will pursue their labours with an ardour untrammelled by painful cares;—a work of special utility, at a moment when international communication and multiplied commerce, bringing good and evil alike, threaten or strike our agriculture with scourges against which science alone can defend it;—an useful work, finally and above all, because it will be an act of justice."

When the Bill came on for consideration in its turn among the orders of the day, the Assembly at once voted urgency, and passed it during the same sitting. Twenty-four members only voted against it.

HOSPITAL OUT-PATIENT REFORM ASSOCIATION.

THE first of a series of local meetings in connection with the above Association was held on Thursday, July 23rd, at 2, Honduras Terrace; Dr. Joseph Rogers in the Chair. In commencing the proceedings of the meeting, the Chairman showed the necessity for the existence of such an association as the present, by calling attention to the great abuse of hospitals which he had witnessed in his own neighbourhood. He particularly referred to the Hospital for Women in Soho Square; and expressed an opinion that an establishment which professed to be a charitable institution, committed a grievous wrong upon society, and perpetrated much injury upon the general practitioner, when it took in patients from the middle classes, who paid so much a week while within its walls. He also drew attention to the dress and appearance of many of those who crowded the out-patient department there, and showed that they could not be entitled to gratuitous medical assistance. He next referred to the Hospital for Diseases of the Heart, an institution which, like many other special hospitals, he considered to be wholly unnecessary; also to the Lock Hospital, where men and women were seen and prescribed for, and a charge made for the medicine supplied to them. Dr. Alexander Grant suggested that meetings like the present one should be held in different parts of London, and local committees formed with the view of bringing the influence of members of the Association to bear on the laymen in their respective localities. He held that greater interest would be taken in the operations of the Association by the adoption of such a course than by holding one central meeting, which it might be difficult for those at a distance to attend. Mr. R. H. Carpenter mentioned several cases, which had lately come under his observation, of persons in good circumstances being treated as out-patients at hospitals in the East End of London. He moved a vote of thanks to the Editor of the BRITISH MEDICAL JOURNAL for his able and consistent support of the cause of out-patient reform. Mr. Nelson Hardy briefly seconded the motion, which was unanimously adopted; and the meeting separated after the usual compliment to the Chairman.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE Quarterly Court of Directors of this Society was held in the rooms of the Royal Medical and Chirurgical Society on July 8th; Sir George Burrows, President, in the Chair. There were two widows added to the list of recipients of grants, thus raising the number to sixty; there was, however, a diminution in the number of children, of whom three receive assistance from the Copeland Fund. The sum divided among the applicants for the present half year was £1,279 10s. The expenses of the quarter were £107 2s., including an honorarium of thirty guineas to the Secretary, in recognition of his zealous and valuable services. Six new members were elected—one under the new bye-law, by which a member may be proposed and elected at the same court.

LONDON MILK-SUPPLY.

THE 389 deaths from diarrhœa recorded last week in the metropolis are a very serious affair. With the advent of warm weather, there is always an increase in the fatal cases from this disease, which as regularly, though more slowly, diminish upon the approach of winter; and the highest number of deaths usually coincides with the thirty-first or thirty-second week of the year; but last week was only the twenty-ninth week of the present year, so there is cause to fear we have not at present seen the worst. During the past eight weeks the deaths from diarrhœa have been rising, having been 22, 39, 56, 68, 86, 129, 238, and 389 in the respective weeks. The 389 deaths of last week "exceeded the corrected average number in the corresponding week of the last ten years by 129, and compared unfavourably with the numbers returned in the twenty-ninth week of the years 1871-2-3, when they were 110, 258, and 205 respectively." All of this is certainly very disappointing, for it must be remembered that the drainage and general hygienic conditions of London have been vastly improved since the earlier years of the decade. How far the want of rain during the present year may account for the prevalence of diarrhœa, we do not know. Undoubtedly there prevails at present a very high rate of mortality from the disease, which is weekly increasing, but which has probably not yet attained the highest figure. How, then, is the disease caused? and how can the mortality therefrom be diminished? Of the 389 deaths, 334 were of infants under one year of age, 35 were those of children between one and five years of age; one was that of a child between five and twenty years of age; 5 were deaths of persons between forty and sixty years old; and 14 were deaths of people aged sixty and upwards. The great bulk of the deaths occurred, therefore, amongst infants and young children, for whom milk forms, or should form, the staple diet; and we believe that the present high death-rate may, in the main, be traced to the badness of the milk supplied to London. If diarrhœa be produced at this season by fruit, as is commonly supposed to be the case, the disease is, at any rate, not of a serious kind, for not a single death of any person between twenty and forty years of age from diarrhœa was last week recorded in London. In the case of infants, too, diarrhœa is much more prevalent amongst those who are hand-fed than those who are suckled; and many a child attempted to be brought up by hand has been apparently rescued from death, simply by the "bottle" being changed for a wet-nurse. Where the mother cannot suckle, and where neither good cow's milk nor a wet-nurse can be obtained, the Swiss condensed milk will be found of very great use in many obstinate cases of diarrhœa. But, after all, why should not the milk supplied to Londoners generally be pure and wholesome? After the prosecutions of dairymen under the Adulteration Act, commenced last year, there was a meeting of the masters engaged in the trade, at which it was agreed to raise the price of milk one penny per quart, upon the clear understanding that water should not for the future be added to the milk, and that there should be from that time no adulteration of any kind. The public readily acquiesced in this proposition, as it was considered to be reasonable. For a short time, also, London milk seemed to be improved; but now it would appear to be almost as bad as ever. The extra penny per quart is still charged, but the liquid sold is of any but first-rate quality. It is too often deprived most unmistakably of cream, is nearly sour when sold, and has received an addition of water. There have been some convictions of dairymen lately, in cases where the milk was watered to the extent of 20, 30, and even 40 per cent.; but we believe the penalties for offences against the law have not been sufficiently enforced. Evil-doers must be terrorised into a more legitimate way of trade, as other influences appear to be of little avail. Let the medical officers of health bestir themselves, and proceed against all the dealers in adulterated milk. The lives of hundreds of little helpless children are at stake. On their behalf we write.

ST. MARY'S HOSPITAL.

WE regret to announce the death of Mr. Barthold Schlesinger, aged 21, house-surgeon to St. Mary's Hospital. This gentlemen was one of the most promising students of his year, and, during the course of his studies at St. Mary's School, had given unusual promise of a brilliant career. He was last week suffering from hospital sore throat, on account of which he left London for a few days. On Saturday, he was boating and fishing, and seemed in better health; on Monday the throat symptoms became more urgent; he, consequently, returned to London, and, as none of the hospital surgeons happened to be at home, he was placed under the care of Dr. Morell Mackenzie. That gentleman found Mr. Schlesinger suffering from diphtheria, and excessive difficulty of breathing, and deemed it necessary to perform tracheotomy at once. Notwithstanding, however, the skill and attention which were bestowed upon the patient, he sank, and died on Tuesday last.

A JUDICIAL APOLOGY FOR THE LAW.

AT a recent trial in Devonshire, Mr. Justice Brett is reported to have dealt at considerable length with the plea of insanity often set up in cases of murder. According to the newspaper account, he said that medical men seemed to be of opinion that a person whose mind was disordered so that he acted not in accordance with an ordinary mode of action was what they called "insane", and, further, they seemed to be of opinion that such persons ought not to be held answerable for their acts. But, as a matter of fact, the law said otherwise, and held that this was not sufficient. It was not enough to show that a man's mind was disordered, but it must also be shown that, even if the man were insane, he was so far insane as not to know the nature of the act he committed, and not to know right from wrong. He declined to enter into the question as to whether, morally speaking, the law was justifiable. The duty of judges and juries was not to act upon their own views or feelings, but to administer the law as they actually found it. When a judge has to become the apologist of the law he administers, it is time that the law was reformed. That such reform is not very far distant, we hope and believe; and we are incited to this hope by a Bill brought into Parliament this session by the Recorder of London for the reform of the law concerning homicide, by which it is proposed to be enacted that homicide shall not be criminal if the person committing it is prevented by mental disease, not only from knowing right from wrong, but also "from controlling his own conduct"; and, moreover, that "if a person is proved to have been labouring under any insane delusion at the time when he committed homicide, it shall be presumed, unless the contrary appears or is so proved, that he did not possess the degree of knowledge or self-control hereinbefore specified". This has not yet become law. It may be some time before it does. Romilly laboured from 1808 to his death in 1818, but laboured in vain, to abolish capital punishment for petty thefts. But we have hopes, for these are not the days of Eldon and Ellenborough.

SCOTLAND.

MR. H. LILY has been appointed Medical Superintendent of the New Western Hospital, Glasgow, which is rapidly approaching completion.

AT the election of two professors for the vacant chair of Anatomy and the Practice of Medicine for Anderson's University, Glasgow, Dr. Alexander M. Buchanan was elected to the former, and Dr. A. Wood Smith to the latter.

LENZIE ASYLUM: APPOINTMENT OF MEDICAL SUPERINTENDENT.

ON July 28th, Dr. Rutherford of Lochgilphead Asylum was appointed medical superintendent of the new asylum at Woodislee, Lenzie, which is at present being erected by the Barony Parochial Board, Glasgow. The other candidates were Dr. Chapman and Dr. S. H. Wright.

IRELAND.

SCARLATINA is still prevalent in Dublin, fifteen deaths having been registered in the week ending the 18th instant.

AT a late meeting of the guardians of the Galway Union, the salary of Dr. Bodkin, medical officer of Arran Dispensary District, was increased from £100 to £120 *per annum.*

BELFAST LUNATIC ASYLUM.

THE annual report of this institution for 1873 is satisfactory, no epidemic or contagious disease having occurred among the inmates. There were 160 patients admitted during the year, showing a total of 522 under treatment; of whom 94 were discharged recovered, 31 improved, and 23 died; leaving, at the close of the year, 351 inmates. Dr. Stewart, medical superintendent, was attacked on two separate occasions by two male homicidal patients; in the first instance, by an attempt at strangulation; and in the second, by a severe stab in the face with a knitting-needle which had been sharpened. The average annual expense of each patient amounted to £26 : 3 : 5, being a slight increase on that of the preceding year.

THE RIGHTS OF DUBLIN GRADUATES.

A CORRESPONDENT writes: I observe, in the last number of the BRITISH MEDICAL JOURNAL, page 89, a notice to graduates of the University of Dublin, stating that they may, without expense, have their names placed on the roll of electors. I believe this to be a mistake. I was educated in Trinity College, Dublin, took the degree of A.B., then commenced the study of medicine, took the degree of M.A. in the usual time (three years from the date of the B.A. degree), and subsequently the degree of M.B. Ten years afterwards I took the degree of M.D., and then registered myself as an elector of the University, to do which it was necessary to pay a yearly sum of one pound or one guinea, or to pay at once five pounds or five guineas (I forget which). I paid the composition fee, £5 or £5 5s., and my name is retained on the roll, and will be during my life. In my time there was a stamp-duty on all degrees. I forget what the amount of this was on junior degrees; but I well remember that the fee for the degree of M.D. was £22, and the stamp-duty was £10 more, making a total of thirty-two pounds or guineas. I understand that the stamp-duty is taken off all degrees, but the fee for registration as an elector I feel confident is retained; I think if it had been abolished I should have heard of it.

LOCAL GOVERNMENT BOARD REPORT FOR 1873-74.

The annual report, for the year ending February last, has just been published, and from it we learn that there are, in Ireland, 163 unions, containing 721 dispensary districts, attended by 803 medical officers, 41 apothecaries, and 181 midwives. During the year there were 500,377 dispensary tickets issued, and 191,649 visiting tickets; 138,873 parties were vaccinated, and 959 dangerous lunatics certified. The total expenses for the various dispensary districts amounted to £139,170. The mortality in the various workhouses came to 11,801, showing an increase of 129 from the preceding year; fever producing 663 deaths, and small-pox 110. The total number admitted in sickness to these institutions during the twelve months amounted to 54,404, being an increase of nearly 1,900 from the former year; but a decrease of 2,000 took place, we are happy to state, under the head of fever and other dangerous contagious diseases. Additional appointments of midwives were made during the year in six districts, to the number of eight, so that these most useful appointments have now been sanctioned in 193 dispensary districts. The Commissioners express great regret that they have not more generally been adopted, as they are persuaded that they are well calculated to prevent much suffering to women in labour, and even, not unfrequently, to save life. The total disbursement of poor-rates for all purposes, viz., relief, medical relief, burial-grounds, registration of births, deaths, and marriages, and sanitary measures, was £959,736, or 1s. 5¼d. in the pound, and the poor-rate collected only £856,304, the difference between the expenditure and collection being to a great extent covered by the parliamentary grant for medical and educational purposes.

DUBLIN MAIN DRAINAGE SCHEME.

A REQUISITION, in course of signature, will shortly be presented to the Lord Mayor of Dublin by a number of influential citizens, asking him to convene a public meeting to consider the Main Drainage question. The object of the proposed meeting is to induce the Corporation to discontinue all further expenditure under the Main Drainage Act, and to join with the citizens in a memorial to the Government for the appointment of an engineer of experience, not previously consulted, to investigate and determine whether a scheme of Liffey purification may not be devised which, while efficacious for the purpose, shall be better suited to the circumstances (financially) of the City of Dublin than that sanctioned under the Act of 1871.

THE SELECT COMMITTEE ON THE APOTHECARIES' LICENCE BILL.

THE report of the Select Committee of the House of Commons, upon the present state of Pharmacy in Ireland, and its suggestions for the amendment of the present laws, have met with very general approval in Dublin. Our readers may remember that the Bill proposed by the King and Queen's College of Physicians met with the approval of the public press in Ireland; and, although the proposals of the Select Committee go much further than those of the College, yet no one seems to complain of the too radical nature of the changes suggested. The Committee report: That a great deficiency is admitted to exist in Ireland of shops for the sale of medicines and compounding of prescriptions; that the deficiency arises from the exclusive privileges enjoyed by the Apothecaries' Company, and from the high, and consequently expensive standard of qualification which it has thought it necessary to maintain, in accordance with the view that an apothecary should prescribe as well as dispense medicines. The Committee recommend the constitution of a Pharmaceutical Society for Ireland, similar to that of Great Britain, with uniform rights and privileges, and identical for students of education and examination. The Committee propose that the Pharmaceutical Society of Ireland should first be formed by training a number of suitable persons to the art, with power to make bye-laws and appoint a board of examiners, subject to the approval of the Lord Lieutenant. The Committee are of opinion that the new body should be independent of the control of any existing body; and that, after the passing of the proposed measure, no person, whose name is not on the register of the Pharmaceutical Society of Great Britain or of Ireland, with the exception of the licentiates of the Apothecaries' Hall in Ireland, should be permitted to sell poisons or compound prescriptions. We believe that a measure, founded upon the above suggestions, will meet all the requirements of pharmacy in Ireland, and we hope the Government will, early next session, bring forward the necessary Bill.

IMPRESSMENT REVIVED IN THE NAVAL SERVICE.

We refer elsewhere (p. 159) to the court-martial, on trivial and technical charges, on a young naval medical officer who has repeatedly begged to be allowed to leave the service, and has been detained in it against his will. The subject is one which deservedly attracts much attention.

Mr. Harrison forwarded an application for permission to retire from the service while at Netley in July 1873, expressing at the same time his willingness to defray any expenses incurred by the State in connection with his stay at Netley. This was refused, and he was sent to the West Indies in H.M.S. *Duncan;* and, on returning in December 1873, again applied to be allowed to leave the Naval Medical Service. In reply, he was ordered to the West Coast of Africa at a day's notice, where he was appointed to the *Tamar.* In May last, on returning to England, he again sent in his resignation; and in June permission was again refused, on the ground that "his services were much required". A further application was placed in the hands of Captain Grubb, C.B., to be forwarded, which he subsequently returned, declining to forward it. The court-martial which has since been held (apparently as a means of still further sweetening the obligatory service of this officer, and of course not at all as a means of vindictively punishing him for persisting in the wish to leave it) is reported in another column. But it is important to note that the first lieutenant, to whom Mr. Harrison is charged with showing insubordination, is a young man of twenty-nine, who had for some time been his private patient, and with whom he was on terms of intimacy. Mr. Harrison had thus frequently before been on shore without giving the first lieutenant previous notice, or without being expected to do so.

The whole case, we must confess, appears to be one of grievous oppression. Nor is the time well chosen for proceedings of the kind. The Naval Medical Service was never in a much more critical position than at this moment, and this case is well calculated to turn the balance. The service has just now very few inherent attractions. In point of pay and promotion, relative rank, and retirement, it is by far the least attractive employment which a young man can seek; and the present plan of court-martialling young surgeons to keep them in the service is very ill-conceived. The whole history looks very like a judicial blindness. Sir A. Armstrong gave a pretty distinct assurance to the deputation of the Parliamentary Bills Committee of the British Medical Association which had an interview with him on this subject, that he would not sanction the detention against their will of men who really desired to leave after trying sea-service. It is not a little surprising that this persecution should follow so closely upon that promise.

It may serve to show how small are the present attractions of the Naval Medical Service to the few young medical men who can be persuaded to try their fortunes in it, that, of fourteen who entered the service in April 1873, and left Netley in July 1873, one has been able to get his resignation accepted; another took French leave at the Cape (a reward of ten pounds being offered for him); a third (an assistant-surgeon in the *Simoom*) has vainly tendered his resignation; and the fourth is the gentleman who, after four times sending in his resignation, has now been court-martialled on trivial pretences. How many more of these fourteen officers have desired to quit the service, and are unwillingly detained in it, we do not know; but we know of two out of eight who formed the last batch of naval surgeons who endeavoured to resign, but were refused, one being sent to the West Coast of Africa, and the other to Zanzibar, on the East Coast of Africa. We seriously commend these facts to the attention of Mr. Secretary Hunt. They afford evidence of a deep dissatisfaction, which is by no means confined to the junior members of the service, and which will effectually prevent the recruiting of its depleted ranks, while they seriously impair its efficiency. If English gentlemen and officers could mutiny, the Naval Medical Service may be said to be in a state of discontent verging on mutiny. We trust that the First Lord will therefore feel that the detailed representations of the recent deputation of our Parliamentary Bills Committee were not in any way premature or beyond the mark, and that he will endeavour, at the earliest moment, to apply himself to the subject, in order to give to it the consideration which it deserves.

ASSOCIATION INTELLIGENCE.

NOTICE OF SPECIAL GENERAL MEETING.

Notice is hereby given that, in accordance with Law 20, a Special General Meeting of the Association will be held at Norwich on Thursday, the 13th day of August next, immediately on conclusion of the Address in Surgery, for the purpose of considering the resolutions necessary for the incorporation of the Association.

Francis Fowke, *General Secretary.*

37, Great Queen Street, London, July 9th, 1874.

BRITISH MEDICAL ASSOCIATION:
FORTY-SECOND ANNUAL MEETING.

The Annual Meeting of the British Medical Association will be held at Norwich, on Tuesday, Wednesday, Thursday, and Friday, August 11th, 12th, 13th, and 14th, 1874.

President—Sir William Fergusson, Bart., F.R.S., Surgeon to King's College Hospital, London.

President-elect—Edward Copeman, M.D., Senior Physician to the Norfolk and Norwich Hospital.

An Address in Medicine will be given by J. Russell Reynolds, M.D., F.R.S., Physician to University College Hospital.

An Address in Surgery will be given by W. Cadge, Esq., Surgeon to the Norfolk and Norwich Hospital.

An Address in Obstetric Medicine will be given by James Matthews Duncan, M.D., F.R.S.Edin., Lecturer on Midwifery and Diseases of Women and Children in the School of Medicine, Edinburgh.

The business of the Association will be transacted in four Sections, viz.:—

Section A. Medicine.—*President:* Dr. Eade, Norwich. *Vice-Presidents:* Dr. Sydney Ringer, London; Dr. Durrant, Ipswich. *Secretaries:* Dr. Bradbury, 59, Corpus Buildings, Cambridge; Dr. Lowe, King Street, King's Lynn.

Section B. Surgery.—*President:* Sir James Paget, Bart., F.R.S., London. *Vice-Presidents:* T. W. Crosse, Esq., Norwich; Dr. Macnamara, Dublin. *Secretaries:* F. Worthington, Esq., Lowestoft; Reginald Harrison, Esq., 38, Rodney Street, Liverpool.

Section C. Obstetric Medicine.—*President:* Dr. Churchill, Dublin. *Vice-Presidents:* Dr. W. S. Playfair, London; Dr. Steele, Liverpool. *Secretaries:* Dr. Edis, 23, Sackville Street, London; F. Image, Esq., Westgate Street, Bury St. Edmunds.

Section D. Public Medicine.—*President:* W. H. Michael, Esq., London; *Vice-Presidents:* Dr. Bateman, Norwich; Dr. Ransome, Bowden. *Secretaries:* Dr. Bond, Gloucester; Dr. Leech, Manchester.

The Honorary Local Secretaries are:
Dr. J. B. Pitt, Norwich.
H. S. Robinson, Esq., Norwich.
Dr. Beverley, Norwich.

Tuesday, *August 11th.*

9.30 A.M.—Committee on Qualification in State Medicine.
10.30 A.M.—Cathedral Service.
1 P.M.—Meeting of Committee of Council.
3 P.M.—Meeting of the Council, 1873-74.
8. P.M.—General Meeting—President's Address

Business: President resigns Chair to President-elect; Vote of Thanks to ex-President; President's Address; Report of Council; Election of General Secretary.

Wednesday, *August 12th.*

9.30 A.M.—Meeting of Council, 1874-75.
11.30 A.M.—Second General Meeting.
11.30 A.M.—Address in Medicine, by Dr. Russell Reynolds, F.R.S.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée at St. Andrew's Hall.

Thursday, *August 13th.*

9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting—Reports of Committees.
11 A.M.—Address in Surgery, by William Cadge, Esq.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

Friday, *August 14th.*

10 A.M.—Address in Obstetric Medicine, by Dr. Matthews Duncan.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting.

RECEPTION OF MEMBERS, AND GENERAL ARRANGEMENTS.

The Central Hall of the Assembly Rooms will be the Reception-Room, and will be opened at 9 A.M. on Tuesday, August 11th, and on the following days at 8 A.M., for the issue of tickets and the daily journal to members.

Gentlemen are requested to register their names and addresses in the Reception-Room as soon after their arrival as possible.

Provision will be made for the receipt and postage of letters, the receipt and delivery of telegrams, and for the care of parcels, umbrellas, etc.

A Refreshment Buffet will be provided at the Reception-Room.

The Editor of the JOURNAL and the General Secretary will have a room at Noverre's Rooms.

The Assembly Rooms will contain, besides the Reception-Room, on the right hand of the entrance, an office for the Local Secretaries and the Secretaries of Committees. There will be, also, under the same roof, a room appointed for the Medicine Section, a Reading and Writing Room, a Luncheon Room, Lavatories, and the Annual Museum.

Hotels.—The following are the chief Hotels: "The Norfolk", in St. Giles's Street; "The Royal", in the Market Place; "The Castle", on the Hill; "The Maid's Head", Wensum Street, Tombland; "The Rampant Horse", Rampant Horse Street; "Mortimer's Hotel", in St. Giles's Street; "The Bell", on the Hill; etc.

Private Lodgings.—For Private Lodgings, and full particulars respecting the Hotels, application should be made to Mr. Horace Turner, Upper St. Giles's Street, Norwich, Honorary Secretary of the Reception Committee.

Soirée.—A *Soirée* will be given in St. Andrew's Hall, Norwich, on the Wednesday evening, August 12th, and will consist of Music, Scientific Exhibitions, Paintings of the Norfolk and Suffolk School of Artists.

ANNUAL MUSEUM.

The seventh annual Museum of the British Medical Association will be held at the Assembly Rooms, and will be open daily from 10 A.M. till 6 P.M., on August 11th, 12th, 13th, and 14th, for the exhibition of the following objects.

1. Latest inventions in medical and surgical instruments and appliances of all kinds.
2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids.
3. General pathological specimens; with photographic models, drawings, etc., illustrating disease.
4. Urinary calculi; with drawings or diagrams of urinary disease, and of operations on the urinary organs.
5. Drawings, diagrams, or models illustrating the ventilation of hospitals and private dwellings.
6. Microscopic pathological specimens.

N.B.—Specimens of disease and calculi which have been exhibited at former meetings cannot be received on this occasion.

The following is a list of the Museum Committee: Mr. Wm. Cadge, *Chairman*, 24, St. Giles' Street, Norwich; Mr. Francis Sutton, London Street, Norwich; Mr. Jonathan Hutchinson, 4, Finsbury Circus, London, E.C.; Mr. Joseph Allen, Tombland, Norwich; Mr. Francis Fowke, 37, Great Queen Street, London, W.C.; Mr. Chas. Williams, 9, Prince of Wales' Road, Norwich; Mr. J. R. Baumgartner, Norfolk and Norwich Hospital; Mr. Charles Firth, *Hon. Sec.*, 65, St. Giles' Street, Norwich.

NOTICE TO EXHIBITORS.—Application to be made as soon as possible, at the same time giving a list of objects, and mentioning the space required. Each object to be accompanied by a printed or written description, or reference, for insertion in the Catalogue; and it is important that these descriptions should be sent *not later than July 28th.*

All parcels to be delivered on or before August 4th, and to be removed within three days after August 14th. They must be addressed "British Medical Association, care of C. Firth, Esq., Assembly Rooms, Norwich". All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be enclosed in each package, ready to be fixed on the outside.

All communications to be addressed to CHARLES FIRTH, Esq., St. Giles' Street, Norwich, the Honorary Secretary to the Museum Committee.

EXCURSIONS.

On Friday afternoon, parties of ladies and gentlemen, accompanied by gentlemen able to give information, will be formed to visit—

1. The Cathedral (where a paper will be read), and other places of antiquarian interest visited.
2. The Waterworks, Filtering Beds, and Reservoirs; the Sewerage Works and Farm; Bishop Hall's Palace (now the Dolphin Inn); the remains of the City Walls at St. Benedict's Gates, Chapel Field, and Ber Street Gates, are on the route of this excursion.
3. Cossey Hall and Park.

Later on in the afternoon, J. J. Colman, Esq., M.P., kindly invites the members of the Association to a *déjeuner.*—All intending to accept Mr. Colman's invitation, whether members of the Association or ladies accompanying them, are particularly requested to notify this fact as early as possible to Mr. W. Bransby Francis, St. Clement's, Norwich.

On Saturday there will be excursions for members of the Association and ladies—

1. To Wells, Holkham Hall and Park, the Danish Camp at Warham, Binham Priory, and Walsingham Abbey.
2. To Swaffham, Castleacre Priory, Houghton Hall, and Raynham Hall.
3. To Aylsham Church, Blickling Hall, Felbrig Park, Beeston Hills, and Cromer, returning by Gunton Park.—The Marchioness of Lothian kindly invites members who join this excursion to a luncheon at Blickling Hall. Mrs. Ketton kindly offers refreshments at Felbrigg Hall; and Mr. Prangley at Aylsham as the party returns.
4. To Fritton Broad, joining the next party.
5. To Herringfleet and Somerleyton Hall.
6. To Lowestoft and Yarmouth.

As special arrangements have to be made for carriages to convey the parties joining these excursions, the numbers must be limited, and tickets cannot be issued after Wednesday, August 12th.

6. There will also be a Yacht Excursion, which will be limited to the accommodation afforded by the yachts at the disposal of the Excursion Committee.

Members wishing to join any of these excursions are desired to communicate early with the Honorary Secretary of the Excursion Committee, Mr. W. Bransby Francis, St. Clement's, Norwich.

The following Places of Interest in the Neighbourhood of Norwich may be conveniently visited by members and ladies during the meeting: Yarmouth; Lowestoft: Cossey Hall; Caistor, by Norwich; Thetford; Wymondham's Geological Stations at Bramerton, Thorpe, Horstead; Botanical Stations at Horsford and St. Faith's. Hunstanton and Sandringham can also be visited from Norwich in a day.

In Norwich, amongst the objects of most interest are the Cathedral, which is open daily; forty-two churches, those most worthy of a visit being St. Peter's, Mancroft; St. Giles's; St. Stephen's; St. John's, Maddermarket; St. Gregory's; St. Michael at Plea; St. Michael at Castany; St. James's; and St. Peter-per-Mountergate; etc. Amongst the ancient buildings, are St. Andrew's Hall, the Guildhall, the Castle (now the County Gaol), St. Helen's Hospital, the Old Bridewell (now a tobacco manufactory), Bishop Hall's Palace (now the Dolphin Inn); the Old Well in St. Laurence, recently restored; and the remains of the City Walls, standing in various places. Mousehold Heath is a short distance from the city.

During the meeting, the following places will be open to members of the Association on presenting their cards of membership: The Public Library; the Literary Institutions; the Free Library; the Norfolk and Norwich Hospital; the Eye Infirmary; the Children's Infirmary; the Bethel (a charitable institution for lunatics); St. Helen's Hospital (a charitable institution for decayed tradesmen); the School for the Indigent Blind; the Norfolk and Norwich Museum; the Guildhall, with the City Plate; the Castle (now the County Gaol); the City Gaol; the County Asylum; the Waterworks; the Sewerage Works and Farm; J. J. Colman's Works; Bolingbroke's, Clabburn's, and Willett's; the Yarn, Power-loom, and other Factories; Barnard and Bishop's Ironworks, and many others.

The hours at which these places can be visited shall be published at a future date.

PAPERS.

The following papers have been promised.

Ogle, J. W., M.D. 1. Cases of Tumour of the Cerebellum; 2. Cases of Adenomatous Tumours within the Thorax.

Fothergill, J. Milner, M.D. The Systemic Indications of Chronic Bright's Disease.

Gowers, W. R., M.D. Cases of Convulsions from Organic Brain-Disease.

Ferrier, D., M.D. The Localisation of Function in the Brain.

Eade, Peter, M.D. A Disease of Carpenters.

Mackenzie, Morell, M.D. On the Ætiology of Bronchocele.

Anningson, Bushell, M.B. On the Ætiology of Infectious Diseases.

Thompson, J. Ashburton, Esq. General Remarks on the Internal Administration of Free Phosphorus.

Bradbury, J. B., M.D. Notes of Six Cases of Hydatids of the Liver treated by Puncture.

Ross, James, M.D. On the Action of Mercury.

Hicks, J. Braxton, M.D., F.R.S. On the Adaptation of the Galvanic Cautery to Gynæcology.

Wright, Frederick W., M.D. On Decollation as a Mode of Delivery in Arm-Presentations.

Smart, W. R. E., M.D., C.B., Inspector-General of Hospitals and Fleets. On the Relative Frequency, the Causes, and Modes of Suicidal Attempts in the Navy and Army.

Fox, Cornelius B., M.D. Water-Analysis; as it should and as it should not be performed by the Medical Officer of Health.

Thornton, W. Pugin, Esq. On the Indications for Tracheotomy afforded by the Laryngoscope.

Baker, J. Wright, Esq. Case of Lithotomy: the Nucleus of the Stone being a Broken Piece of Elastic Catheter.

Thorowgood, J. C., M.D. On the Nature of the Asthmatic Paroxysm.

Duncan, J. Matthews, M.D. Laboratory Note: On the Tensile Strength of the Fœtus.

Cormack, Sir John Rose, M.D. Diphtheritic Paralysis.

Cormack, Sir John Rose, M.D. Successful Resection of the Shoulder-joint in Case of Gunshot Wound.

Althaus, J., M.D. On some Forms of Spinal Exhaustion, and their Treatment by the Constant Galvanic Current.

Drysdale, Charles R., M.D. On Dysmenorrhœa.

Braidwood, P. M., M.D. On Cerebro-Spinal Concussion.

Clapperton, James, Esq. Maternal Impressions.

Buchanan, George, M.D. Some Points in the Anatomy and Surgery of Talipes Varus.

Barwell, Richard, Esq. A New Method of treating Chronic Strumous Synovitis, more especially of the Knee.

Drysdale, C. R., M.D. When, and for how long, should Mercury be used in the treatment of Syphilis?

Beverley, M., M.D. Hospital Hygiene, illustrated by references to the Norfolk and Norwich Hospital in the past, present, and future.

Rumsey, H. W., M.D., F.R.S. The Correlation of Sick Poor Relief and Public Health Administration.

Haviland, Alfred, Esq. The Geographical Distribution of Disease within the area of the combined Sanitary Authorities of the Counties of Northampton, Leicester, Rutland, and Bucks.

Bond, Francis T., M.D. 1. On a New Form of Disinfectant; 2. On an Improved Form of Dry Closet; 3. On a New Method of dealing with House-Slops in rural districts.

Higgens, Charles, Esq. On Muscular Asthenopia.

Steele, A. B., L.K.Q.C.P. On the Treatment of Mechanical Dysmenorrhœa and Chronic Induration of the Cervix Uteri.

Chambers, T., M.R.C.P. 1. A Case of Complete Inversion of the Uterus, profuse *Post Partum* Hæmorrhage, and rapid Death of the Patient. 2. A Case of Retroflexion of the Gravid Uterus: Retention of Urine: Vesical Hæmorrhage: Transfusion with Lamb's Blood: Death.

Amyot, Thomas E., Esq. Cases of Traumatic Diabetes: with some Remarks as to Treatment.

Edis, Arthur W., M.D. The Rectum in its relation to Uterine Disease.

Dowse, T. S., M.D. 1. The Treatment of Acute Rheumatism. 2. A Case of Tumour originating from the Dura Mater of the Spinal Cord in the Cervical Region, producing General Paresis.

Skrimshire, John, M.D. (Holt). On Preventive Surgery in its Relation to Injuries from Agricultural Implements.

Lund, Edward, Esq. On Incision *versus* Excision of the Knee in Children.

Manby, F. E., Esq. The Treatment of Loose Cartilages.

Bradley, S. M., Esq. On the Mode of Employing Pressure in Cases of Chronic Inflammatory Enlargement.

Barnes, E. G., M.B. (Eye). The Long Forceps, the Short Forceps, and the Vectis.

Prangley, T., Esq. On Diphtheria.

Allen, Joseph, Esq. Notes on a Case of Gastrotomy.

Beverley, Michael, M.D. Statistical Records of the Surgical Operations performed during the past ten years in the Norfolk and Norwich Hospital.

Mackintosh, Angus, M.D. 1. The Cause, Mode of Propagation, and Non-Contagious Nature, of Enteric Fever. 2. A New System of Ventilating Sewers and Drains.

Madden, T. More, M.D. 1. A Case of Rupture of the Uterus during Labour, in which the patient recovered. 2. A remarkable Case of Complex Labour.

Sims, J. Marion, M.D. 1. Nélaton's Method of Resuscitation from Chloroform Narcosis. 2. On the Management of the Pedicle in Ovariotomy.

Tait, Lawson, Esq. Operations for Fibroma of the Uterus.

Thompson, James, M.B. Leamington Spa; Climate; and Mineral Springs.

Humphry, G. M., M.D., F.R.S. 1. The Treatment of Wounds. 2. A Case of Double Popliteal Aneurism.

Cormack, Sir John Rose, M.D. Recovery from apparent Death induced by the Inhalation of Chloroform: a Case described principally with a view to show the Therapeutic Value of Inversion of the Body when there is Syncope from Cerebral Anæmia.

De Méric, Victor, Esq. Hereditary Syphilis in the Adult.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above-named officers *on or before the 1st of August*.

No paper must exceed *twenty* minutes in reading; and no subsequent speech must exceed *ten* minutes.

All speeches at the General Meeting must not exceed *ten* minutes each.

FRANCIS FOWKE, *General Secretary*.

General Secretary's Office, 37, Great Queen Street, W.C.,
June 25th, 1874.

METROPOLITAN COUNTIES' BRANCH: SPECIAL GENERAL MEETING.

A SPECIAL GENERAL MEETING of this Branch was held at 11, Chandos Street, Cavendish Square, on Tuesday, June 30, at half-past seven, P.M.; RICHARD QUAIN, M.D., F.R.S., President in the chair; for the purpose of electing thirty representatives of the Branch in the General Council of the Association, for the ensuing year.

A ballot having been taken, the following gentlemen were declared by the scrutineers to be elected: W. Adams, Esq.; F. E. Anstie, M.D.; J. H. Aveling, M.D.; R. Barnes, M.D.; H. C. Bastian, M.D., F.R.S.; G. W. Callender, Esq., F.R.S.; W. Cholmeley, M.D.; W. Fairlie Clarke, Esq.; J. T. Clover, Esq.; T. B. Curling, Esq., F.R.S.; Walter Dickson, M.D.; J. Langdon Down, M.D.; Robert Dunn, Esq.; S. Felce, M.R.C.P.Ed.; J. M. Fothergill, M.D.; Wilson Fox, M.D., F.R.S.; S. O. Habershon, M.D.; G. Harley, M.D., F.R.S.; Ernest Hart, Esq.; A. Henry, M.D.; Berkeley Hill, Esq.; J. Hutchinson, Esq.; G. Johnson, M.D., F.R.S.; John Marshall, Esq., F.R.S.; H. Maudsley, M.D.; A. Meadows, M.D.; J. H. Paul, M.D.; R. Quain, M.D., F.R.S.; C. H. Rogers-Harrison, Esq.; G. P. Rugg, M.D.

METROPOLITAN COUNTIES' BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at 11, Chandos Street, on Tuesday, June 30th, at eight P.M., R. QUAIN, M.D., F.R.S., President, in the chair.

Cremation in its Bearings on Public Health.—Mr. W. EASSIE read a paper on this subject, which is published at page 134.

Dr. STEWART said the Society was very much indebted to Mr. Eassie for his paper. He had dealt with the question in a very able manner; and the arguments which he had advanced in support of cremation, were worthy of every consideration. It would be interesting to know what was the general opinion of the medical profession on the subject; and, as he saw Mr. Lockhart present, he would like to hear from him what was the practice of disposing of the dead in China and other Eastern nations.

Mr. LOCKHART said, that in China and Japan the people did not practise cremation. On the contrary, it was their custom to bury their dead; and the hills were mostly used for that purpose; but, after a time, when the bodies decayed, the bones were gathered up by the relatives of the deceased, and deposited in a mortuary temple, where shelves were placed to receive them. The Chinese in California adopted a similar plan. Instead of embalming the body, and sending it back to China, it was first interred in America; but the bones were afterwards collected and shipped to China, for the purpose of being placed in the mortuary buildings of the villages to which the deceased belonged. On the hills in China the graves were often allowed to remain undisturbed for some years; but, in the low-lying districts, the bones were gathered up as soon as possible; and there was no such place actually as a cemetery. As regarded India, he had no personal experience of the mode in which they disposed of the dead, but, so far as he knew, they did not generally practise cremation.

Dr. CRISP said that, whatever opinion might be entertained with regard to cremation, he did not think that a public record should be kept of the diseases from which people died. He knew many persons who, if they had a knowledge that their ancestors had died of consumption or cancer, would waste away their lives with apprehensions that they might inherit the disease. Assuming cremation to be permitted by law, it would, he thought, be a long time before it was generally adopted. A very universal desire existed amongst the people in this country to know where there relations were buried, and it would be very difficult to overcome that feeling. He thought that underground burial-places might be more generally adopted, as they would do away with the objection to existing graveyards, especially if they were lighted with gas, and made pleasant. All offensive exhalations from the dead bodies might be prevented, by filling the interstices of the coffins with plaster of Paris.

Mr. LORD said he was far more hopeful of seeing cremation adopted than the speaker who had preceded him. He considered that the feeling of attachment, generally prevalent with regard to dead bodies, was founded upon the most erroneous notions, which were a reproach to modern enlightenment. It was the duty of the medical profession to eradicate such a false sentiment of veneration for what was, after all, but a mere remnant of clay. The body was but the shell which contained the spirit; and when the spirit was departed, what did it matter whether the body was burned or buried? On sanitary grounds, he had always been a strong advocate of cremation, and the time had come when its general adoption should be recommended. As regarded the objection to the practice on religious grounds, he might mention that, some years ago, Lord Shaftesbury's opinion had been asked on this question, and his reply was, "I scout altogether the objections of the religious world to the practice of cremation." In fact, it was superstition, not religion, which was opposed to the practice.

Dr. L. SEDGWICK did not understand why people, speaking of "burial", should make use of the words "inhumation", and of "cremation", when what was meant was "burning". With regard to burial, he doubted much whether plaster of Paris would be effective in preventing offensive exhalations from coffins; his experience would lead him to an opposite conclusion. As to the question, whether burning should be preferred to burial, he was of opinion that the greatest difficulty in the way of its adoption was the sentimental objection to which reference had been made. It was not impossible, he thought, to render burial-grounds unobjectionable from a sanitary point of view; and, however much the feeling might be ridiculed, the desire to be buried rather than burned would not be easily overcome. So far as his own feelings were concerned, he had no hesitation in confessing that, when he died, he should like to go home in the old-fashioned way.

Dr. AVELING said that in India the custom was to take the corpse to the top of a hill. It was there taken from the relatives by parties appointed to take charge of the dead, and they placed the body naked upon a stone slab, where it was left for two or three days until the bones were picked perfectly clean by the birds of prey. After that, the bones were buried. The plan was a very economical one, and was by no means repugnant to the feelings of the pious Parsees of the country. He was afraid the plan would not be feasible in this country, and that cremation would be preferable.

Mr. LOCKHART said there was one inconvenience caused by the plan of leaving the dead bodies to be consumed in the manner described, and it was this: that the birds of prey flew away with pieces of the flesh, which they frequently dropped into the houses.

Mr. LORD said that the Indian plan was somewhat similar to that proposed by a Government Inspector, who had suggested that the dead should be conveyed to the sea, in order to make food for the fishes.

Mr. EASSIE, in reply to a question, mentioned that the body of a man of ordinary size would be reduced by cremation to ashes which would be contained in a cube of six inches. Being asked by Dr. Stewart as to the cost of the process, he said the furnaces which had been already erected were not of a kind to enable him to offer any reliable opinion on the question.

Dr. FELCE thought there would not be much difficulty in convincing the medical profession of the value of cremation, but public sentiment was very much opposed to it, and that feeling would not be ignored. Amongst the female portion of the community, the proposal was regarded with horror. He never yet met a lady who was in favour of cremation. He thought that, if catacombs and tombs were abolished, and dead bodies were buried only in the earth, the evils now complained of with regard to grave-yards would be obviated; and if the medical profession would advocate such a plan, they would be doing much more to benefit the community than by recommending a process to which there were such strong objections.

Dr. COTTEW said he had several conversations on the subject with ladies, and their views on the subject were expressed in the observation that the people who proposed such a thing would burn the living if they could. One ground of objection to the practice was, that it was opposed to people's notions on the subject of the Resurrection. A feeling existed that if the body were burned it could never be raised to life again; and that belief, however foolish, would have to be removed before cremation was generally adopted.

The PRESIDENT said the desire to preserve the bodies of the dead was very general. It prevailed amongst the Egyptians of old, and was also very general amongst modern nations. That feeling would have to be overcome before cremation was adopted. No doubt, for simplicity and economy, as well as for sanitary reasons, burning was preferable to burial; but, notwithstanding that, he was of opinion that the practice would never commend itself to such an extent as to be generally adopted.

After some remarks from Mr. EASSIE in reply, reiterating the opinion that grave-yards, no matter how well managed, could not be rendered innocuous, the discussion was brought to a close by votes of thanks to the author of the paper and to the Chairman.

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

THE Twenty-second Annual Meeting of the Branch was held at the Banqueting Hall, Alexandra Palace, on Monday, July 20; Richard QUAIN, M.D., F.R.S., and afterwards T. B. CURLING, Esq., F.R.S., President, in the chair.

New Members.—Dr. Arthur Scott Donkin and Dr. C. Meymott Tidy were elected members of the Association and Branch. Dr. A. Jagielski was elected a member of the Branch.

Report of Council.—Dr. HENRY, one of the honorary secretaries, read the following report.

"In presenting the Twenty-second Annual Report of the Metropolitan Counties' Branch, the Council have the satisfaction of congratulating the members on the increased prosperity of the Society; the number of additions since the last annual meeting having been far greater than in any previous year. At the meeting in July 1873, the number of members on the list was 476; of these, 12 have been removed by death, and 13 have ceased to be members through resignation and removal. To the 451 members left, 158 have been added; making the total number at present 609.

"This increase is, in great measure, due to the influence of the very successful meeting of the Parent Association held last year in London. On that occasion, several hundred members of the medical profession in London and the neighbourhood joined the Association, and of them about 150 also became members of the Branch.

"The Branch has had to regret the loss by death of the following members: Dr. Peter Allen, aural surgeon to St. Mary's Hospital; Dr. Frederic Bird, obstetric physician to the Westminster Hospital; Mr. James Bird, well known many years ago for the active part which he took, in conjunction with the late Mr. Henry Ansell, in promoting the cause of medical reform; Dr. James Cotton Byles; Dr. Archibald Douglas; Mr. W. A. Hillman, surgeon to the Westminster Hospital; Dr. H. W. Fuller, physician to St. George's Hospital; Dr. John Murray, assistant-physician to the Middlesex Hospital, and one of the secretaries of the Excursion Committee at the last annual meeting of the Association; Dr. John J. Phillips, assistant obstetric physician to Guy's Hospital; Mr. J. S. Streeter; Mr. R. W. Tamplin, lately surgeon to the Royal Orthopædic Hospital; Mr. J. D. Walker; and Dr. Forbes Winslow, the well known psychologist.

"Three general meetings of the Branch have been held this year, at which the following papers were read:

"On January 30, by Mr. W. H. Michael, on The Public Health Act (1872); its defects, and suggested amendments;

"On March 25, by Dr. Anstie, on Chorea, its Prognosis and Treatment;

"On June 30, by Mr. W. Eassie, on Cremation in its bearings on Public Health.

"The reading of each of these papers was followed by an interesting and instructive discussion.

"The secretaries, by direction of the Council, have been engaged in negotiation with several gentlemen for papers to be read during the next session. The success of the previous meetings encourage them to hope that the new Council will find it easy to secure the provision of a full number of instructive papers for discussion.

"At the first general meeting this year, your President had the gratification of reading to the members present a resolution passed at the general meeting of the Parent Association, conveying the thanks of that body to the president and members of the Branch for their hospitable reception.

"The members of the Branch will have observed that Dr. Stewart does not offer himself for re-election as secretary; and they will, without doubt, join the Council in the feeling of regret at his retirement from the office which he has held with honour to himself and advantage to the Association and Branch during seventeen years. They are confident that they only express the opinion of the whole Branch, when they say that the Branch is under lasting obligation to Dr. Stewart for the zeal and ability with which he has performed his laborious duties, for the persevering and judicious manner in which, as the official representative of the Branch, he has advocated measures of professional and public interest, and for his honourable conduct and uniform courtesy towards the members of the Branch. Much of the present prosperity of the Branch and of its influence with the profession is without doubt due to Dr. Stewart.

"The Council have much pleasure in announcing that the Treasurer's report will show a balance of £56 in hand, after the payment of all expenses up to the end of last month. They recommend that donations of £10 10s. each be given to the British Medical Benevolent Fund and the Royal Medical Benevolent College."

Mr. CURLING moved, and it was unanimously resolved: "That the report of Council now read be received, adopted, and entered on the minutes."

Treasurer's Report.—Mr. DUNN, treasurer, read the financial report, which showed that the receipts for the year ending July 15 amounted to £111 9s. 1d., and the payments to £55 3s.; leaving a balance in hand (clear of all charges up to July 1) of £56 6s. 1d.

It was proposed by Dr. DICKSON, seconded by Mr. W. MARTIN, and resolved: "That the Treasurer's report be received, adopted, and entered on the minutes."

Election of Officers and Council.—A ballot having been taken, the following officers and Council, for the year 1874-5, were declared to be elected. *President:* Thomas Blizard Curling, Esq., F.R.S. *President-elect:* Robert Barnes, M.D. *Vice-Presidents:* Sir William Fergusson, Bart., F.R.S.; Richard Quain, M.D., F.R.S. *Treasurer:* Robert Dunn, Esq. *Secretaries:* Alexander Henry, M.D.; Robert Farquharson, M.D. *Ordinary Members of Council:* J. Ford Anderson, M.D.; J. H. Aveling, M.D.; S. Day-Goss, M.D.; Walter Dickson, M.D.; J. Langdon H. Down, M.D.; Stamford Felce, M.R.C.P.Ed.; J. Milner Fothergill, M.D.; H. Gervis, M.D.; P. H. Holland, Esq.; A. O'Brien Jones, Esq.; J. C. Langmore, M.B.; C. F. Maunder, Esq.; J. H. Paul, M.D.; J. D. Rendle, M.D.; C. H. Rogers-Harrison, Esq.; George P. Rugg, M.D.; C. Shrimpton, M.D.; and A. P. Stewart, M.D.

Dr. QUAIN having briefly expressed the pleasure which his presidency had given him, and thanked the members for their support, resigned the chair to the new President, T. B. CURLING, Esq., F.R.S., who delivered an address, which is published at page 133.

Votes of Thanks.—Mr. W. MAC CORMAC moved, and it was carried by acclamation,

"That the best thanks of the Branch be given to the President for his able address.

Vote of Thanks to the Retiring President.—Dr. STEWART moved:

"That the cordial thanks of the Branch be given to the retiring President, Richard Quain, M.D., for his able and courteous conduct in the chair, and for the interest which he has shown in the welfare of the Branch."

He said, that Dr. Quain's interest in the Association was not of late growth, but had existed many years. To him was due the merit of having been the first to suggest a meeting of the Parent Association in London; and his suggestion led to the holding of the great meeting of 1862, which did more than anything else to promote union and good feeling between the metropolitan and provincial members of the Association.

The motion was carried by acclamation.

Vote of Thanks to Dr. Stewart.—Dr. SIBSON proposed:

"That this Branch offers its most cordial thanks to Dr. A. P. Stewart for the highly honourable and efficient manner in which he has discharged the duties of secretary during the last seventeen years; for his constant attention to his duty as the representative of the Branch in the General Council and Committee of Council of the Parent Association; and for the able and judicious manner in which he has at all times laboured to promote the interests, not only of the Association and Branch, but of the profession generally."

The motion having been carried by acclamation, was acknowledged by Dr. STEWART, who said that he could not have served the Branch so long if he had not felt that the Association was well worth working for. Notwithstanding the large number of societies already existing in London, the Branch had been able to do a good deal of work. It had given him the greatest pleasure to have had the privilege of working for the Association; and he thanked all the members of the Branch for the courtesy and forbearance with which they had treated him.

Dinner.—The members, to the number of nearly fifty, afterwards dined together; T. B. CURLING, Esq., in the chair.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Mineral Water Hospital, Bath, on Thursday, July 9th. There were about forty members and visitors present. Dr. E. L. FOX, President, took the Chair, and the minutes of the last annual meeting were read and confirmed.

New Members.—The following gentlemen were elected members of the Association and of the Branch: H. W. Collins, M.R.C.S. (Wrington), W. C. G. Collins, M.B. (Chew Magna), W. E. Stevens, M.R.C.S. (Pewsey), L. Weatherley, M.D. (Portishead).

President.—Dr. FOX, with a few appropriate remarks, resigned the chair to FREDERICK MASON, Esq., President-elect, who read an address chiefly relating to ophthalmic surgery.

Mr. LEONARD proposed, and Dr. HENSLEY seconded, the following resolution:

"That the best thanks of the Branch be tendered to F. Mason, Esq., for his able address, and that he be requested to allow it to be printed in the JOURNAL." This was carried unanimously.

Report of Council.—Mr. FOWLER read the following report of Council.

In issuing the thirty-third report, your Council has much pleasure in being able to inform you that the Branch continues to thrive and increase, and that though the losses from death, removal, and other causes have amounted to fourteen this year, fifteen new members have been elected, and your Branch now numbers more than two hundred members, and has the responsibility of electing ten representatives on the General Council of the Association at the next meeting, which will be held at Norwich in August. In consequence of an alteration in the thirteenth law of the Association, passed at the last meeting in London, it becomes imperative on the Branches to elect their representatives in the middle of June, in order that the names of those elected should be circulated among the Committee of Council previously to their quarterly meeting in the first week of July. This alteration has rendered it necessary for your Secretaries to take immediate action this year to provide for this emergency, which would, without some arrangement, have deprived your Branch of the honour of being represented in the Council of the Association. The Secretaries having taken the advice of your President, and consulted several members of the Council, came to the determination to take the vote of the Branch by circular, and, having ascertained, as far as members chose to inform them, who were likely to go to Norwich, they forwarded voting-papers to each member of the Branch, and the result has been that Messrs. Anstie, Bartrum, Church, Davey, Falconer, Fox, Goss, Marshall, Mason, and Terry, have been elected representatives of your Branch on the General Council of the Association. Your Council, feeling the difficulty under which the Branch lies, and seeing that the only way to conform to the law of the Association, and still to maintain the usual mode of election, is by altering the date of the annual meeting, suggests the following resolution:

'That the annual meeting of the Branch be held in the month of June at such time as the Council shall deem necessary in order to conform to the thirteenth law of the British Medical Association.'

Your Council deeply regrets the death of Charles Bailey, Esq., of Chippenham, an old and much esteemed member of the Branch, well known in days gone by for his philanthropic spirit and as donor of several houses in Chippenham to the Trustees of the Medical Benevolent Fund. Messrs. Long of Thornbury and Sleeman of Bristol have also been taken away from us; and within the last few days one of the oldest members of the Branch, Mr. C. W. Smerdon, has passed away from us at the ripe age of eighty-nine.

"The balance-sheet still presents a favourable aspect, there having been a surplus of £13 17s. 7d. in hand on the first day of the year.

"Your Secretaries have alternately attended each of the meetings of the Committee of Council during the past year, and have endeavoured to efficiently represent your interests in that body. Your Council recommends a grant of three guineas to the Medical Benevolent Fund.

"The Secretaries appointed to examine the voting-papers report that the following gentlemen are elected members of the Branch Councils: For Bristol—Dr. Swayne, Mr. C. H. Collins, Mr. W. M. Clarke, and Dr. Beddoe; for Bath—Mr. Stockwell, Mr. Lawrence, Mr. Waugh, and Dr. Spender."

Dr. FALCONER proposed, and Mr. CROSSMAN seconded—"That the report now read be received and adopted." This, after a few explanatory remarks from Mr. Bartrum, was unanimously carried.

President-elect.—Mr. PRICHARD then proposed, and Mr. STONE seconded, "That Mr. W. Mitchell Clarke be President-elect." This was carried unanimously.

Votes of Thanks.—Mr. CHADWICK proposed, and Dr. GOODRIDGE seconded, "That the best thanks of the Branch are due to Dr. E. L Fox for his able conduct in the chair during the past year."

Mr. WAUGH proposed, and Dr. DAVEY seconded, a vote of thanks to the Council and to the Secretaries for their management of the affairs of the Branch during the past year, coupled with a request that the Secretaries would continue in office for the ensuing year.

The meeting concluded with a vote of thanks to the Governors of the Hospital for the use of the Board-room.

Dinner.—Thirty-three members and visitors afterwards dined together at the York House.

NORTHERN BRANCH: ANNUAL MEETING.

THE tenth annual meeting was held in the Town Hall, South Shields, on Tuesday, June 30th; Dr. A. LEGAT, President, in the Chair. There were also present thirty-two members and three visitors.

President's Address.—The PRESIDENT delivered an address, which was published at page 73 of the JOURNAL for July 18.

Mr. G. B. MORGAN (Sunderland) moved, Dr. FOSS (Stockton-on-Tees) seconded, a hearty vote of thanks to Dr. Legat for his address.

Thanks to retiring President and Officers.—Dr. YELD (Sunderland) proposed, "That the best thanks of the meeting be given to the retiring President, Dr. Heath, the Council of Management, and the other officers, for their services during the past year." This was seconded by Dr. FOTHERGILL (Darlington), and carried by acclamation.

Report of the Council.—Dr. PHILIPSON read the report of the Council, which spoke favourably of the stability and usefulness of the Branch. The number of the members was 215, including twenty new names added during the year. Fifteen members, however, had either died, left the district, or, from resignation or non-payment of their subscriptions, ceased to be connected with the Branch. The Council deeply regretted that the Treasurer's account showed a deficiency of £2 : 0 : 5. The increased expenditure over the receipts had been occasioned by the expenses of the spring and autumnal meetings, which had only been established in the previous year. There was every hope that the addition to the annual subscription would suffice for all the expenses in the future. Allusion was then made to the loss the Branch had sustained in the death of Dr. Edward Charlton, a former President of the Association, and also of the Branch. The report concluded with an earnest appeal to the members to use every endeavour to maintain, and, if possible, to increase, the prosperity of the Branch.

Treasurer's Report.—Dr. PHILIPSON read the Treasurer's statement, which showed that the balance in hand at the commencement of the year 1873 was £2 : 11 : 3, and the amount received in annual subscriptions was £25 : 5; total, £27 : 16 : 3. The expenses during the year amounted to £29 : 16 : 8, leaving on December 31st, 1873, a balance of £2 : 0 : 5 due to the Treasurer.

The late Dr. Charlton.—It was moved by Dr. WILLIAMSON (South Shields), seconded by Mr. S. W. BROADBENT (South Hetton)—

"That the Northern Branch of the British Medical Association deeply sympathise with Mrs. Charlton in the loss she has sustained by the death of her husband, the late Edward Charlton, M.D., D.C.L. The Branch fully recognise the services rendered to the Association by Dr. Charlton as President during the year 1870-71, when the annual meeting of the Association was held in Newcastle-upon-Tyne; and also warmly acknowledge the influence, ability, and courtesy with which he fulfilled the duties of President of the Branch during the year 1867-68."

Officers for 1874-75.—On the motion of Dr. GIBSON (Newcastle), seconded by Mr. JOSEPH F. ARMSTRONG (South Shields), it was unanimously resolved, "That the next annual meeting be held at Darlington, the autumnal meeting at Saltburn-by-the-Sea, and the spring meeting at Tynemouth; that S. E. Piper, Esq., be President-elect; Dr. Philipson, Honorary Secretary and Treasurer; and Dr. Humble, Dr. Gibson, Dr. Frain, and Dr. Dixon, the Council of Management."

Representatives in the General Council.—On the motion of Dr. FRAIN (South Shields), seconded by Mr. J. L. CRISP (South Shields), the following members were elected to represent the Branch in the General Council of the Association: J. B. Bramwell, M.D.; S. W. Broadbent, Esq.; Martin Burnup, M.D.; J. W. Eastwood, M.D.; Charles Gibson, M.D.; G. Y. Heath, M.D.; Thomas Humble, M.D.; John Jobson, Esq.; Andrew Legat, M.D.; S. E. Piper, Esq.; R. N. Robson, Esq.; and G. M. Philipson, M.D., *ex officio.*

Representative in the Parliamentary Committee.—It was moved by Dr. BURNUP (Newcastle), seconded by Dr. DENHAM (South Shields), and unanimously agreed to—"That Dr. Philipson be the representative of the Branch in the Parliamentary Committee."

Change of Title of the Branch.—The following resolution was moved by Dr. EASTWOOD (Dinsdale Park), and seconded by Dr. DENHAM (South Shields): "That the title of the Branch be 'The North of England Branch', in place of 'The Northern Branch'." Dr. Eastwood explained that the change was necessitated by the establishment of the North of Scotland Branch.

As an amendment, it was moved by Dr. DIXON (Sunderland), and seconded by Mr. W. L. EMMERSON (Newcastle), "That the consideration of the question be postponed until the next annual meeting." On being submitted to the meeting, the amendment was negatived. The resolution, proposing to change the title, was carried.

Vote of Thanks.—It was moved by the PRESIDENT, seconded by Mr. A. G. ROBB (Gateshead), and carried by acclamation—"That the best thanks of the meeting be given to the Mayor and Corporation of South Shields for their kindness in granting the use of the Town Hall for the purposes of the meeting."

Dinner.—The members and their friends dined together at the Winterbottom Marine School. The President was supported by the Mayor of South Shields (Alderman Glover), and the Rev. E. L. Butcher, Vicar of St. Thomas's, South Shields; Dr. Philipson occupying the vice-chair. A comprehensive toast-list was gone through, and a most agreeable evening was passed.

NORTH WALES BRANCH: ANNUAL MEETING.

THE twenty-fifth annual meeting of this Branch was held at the Royal Oak Hotel, Bettwsycoed, on Tuesday, July 7th; T. EVANS JONES, Esq., President, in the Chair. There were thirteen other members present, with Dr. Steele of Liverpool and Mr. Edwards of Tunstall as visitors. Several letters were received and read, principally from R. Davies, Esq., the retiring President; G. Turner Jones, Esq., Branch Treasurer; T. T. Griffith, Esq., and Dr. Williams of Wrexham; Dr. Hughes of Colwyn, Dr. Williams of Mold, and others, regretting their inability to attend through illness or professional engagements.

President's Address.—The PRESIDENT delivered a brief but interesting Address upon the Mineral Waters of Trefriew, near Llanrwst, which contain a large amount of sulphate of iron as their principal constituent. He gave the history of their discovery and their curative properties, detailing several cases he had treated, and recommended the waters in some of the forms of uterine disease, chronic rheumatism, etc.

Mr. PRICHARD (Conway) moved, and Mr. HUGHES (Bala) seconded, a cordial vote of thanks to the President for his address.

Report of Council.—Mr. EYTON JONES (for Mr. Kent Jones, Honorary Secretary) then read the Report of Council.

"While congratulating the members of the North Wales Branch upon its twenty-fifth anniversary, the Council express their hope that the utility and advantages of this Branch of the British Medical Association will become more and more generally recognised, and that those who have not yet joined it will soon do so. So much of mutual regard and friendship is exchanged and imported into this Society by the recurrence of these meetings, that it is an acknowledged fact that medical men derive more substantial professional and scientific knowledge from the concentrated *clinique* elicited at them than they would otherwise obtain.

"With respect to medical legislation in Parliament, the Council think the interests of the profession may be safely left in the hands of the Parliamentary Bills Committee of the Association, and its able Chairman, Mr. Ernest Hart.

"The BRITISH MEDICAL JOURNAL, as every one must acknowledge, continues to be edited with Mr. Ernest Hart's usual zeal, industry, and talent.

"The half-crown subscriptions received amount to £4 16s. 6d.; and the expenditure up to the present time for printing, stationery, and Secretary's official expenses, come to £2 13s. 4d., leaving a balance of £2 3s. 2d."

It was moved by Dr. RICHARDS (Bangor), seconded by Mr. SHELTON JONES (Denbigh), and carried unanimously, "That the Report of Council now read be adopted and entered in the Minutes."

Vote of Thanks to the Council for the past Year.—Dr. GRIFFITH (Portmadoc) moved a vote of thanks to the Council for their services for the past year, which, being seconded by Mr. DAVIES (Colwyn), was heartily agreed to.

President-elect for 1875, *and place of Annual Meeting for that Year.*—It was moved by Mr. EYTON JONES (Wrexham), seconded by Mr. KENT JONES, and carried unanimously, "That J. R. Walker, Esq., of Corwen, be the President-elect for 1875; and that Rhyl be the place of annual meeting on the first Tuesday of next June."

Branch Council for Next Year.—The following members were elected upon the Branch Council for next year; viz., J. Richards, M.D., Bangor; A. E. Turnour, M.D., Denbigh; E. Williams, M.D., Wrexham; S. Griffith, M.D., Portmadoc; R. Hughes, Esq., Bala; and R. A. Prichard, Esq., Conway.

Representatives upon the General Council.—Thomas Taylor Griffith, Esq., Edward Williams, M.D., and Thomas Eyton Jones, Esq., all of Wrexham, were re-elected.

Representative to the Parliamentary Bills Committee.—Thomas Eyton Jones, Esq., of Wrexham, was unanimously re-elected.

Intermediate Meeting.—It was moved by Mr. PRICHARD, seconded by the PRESIDENT, and agreed to, "That the next intermediate meeting be held at Conway some time in the month of January."

Secretary and Treasurer.—D. Kent Jones, Esq., of Beaumaris, was re-elected Honorary Secretary; and G. Turner Jones, Esq., of Denbigh, was re-elected Treasurer.

Papers and Cases.—The following papers were read.

1. On Bright's Disease of the Kidneys, and on Albuminuria. By J. Richards, M.D., Bangor.—A long and interesting discussion followed, in which Dr. Turnour of Denbigh, Mr. Hughes of Bala, Dr. Griffith of Portmadoc, and Mr. Eyton Jones, took part.
2. On Morbid Growths from the Uterus, with the parts removed. By A. B. Steele, L.K.Q.C.P.I., Liverpool.
3. Case of Ulcerative Destruction of Condyle of Left Femur, for which amputation had been performed. By T. Eyton Jones, Esq., Wrexham.
4. Cases in which the Pneumatic Aspirator was successfully employed, removing large quantities of sero-purulent fluid; patients making good recoveries. By E. S. Jones, Esq., Denbigh.
5. Case of Fibroid Tumour of the Hip. By A. E. Turnour, M.D., Denbigh.

Dinner.—Afterwards, all the members present, with some guests, dined together, and spent a pleasant evening.

ABERDEEN, BANFF, AND KINCARDINE BRANCH: ANNUAL MEETING.

THE annual general meeting was held in the Northern Hotel, Aberdeen, on Saturday, July 18th; Dr. GREIG of Fyvie in the chair. There were present thirty-four members.

Representatives in the General Council.—It was intimated that the Council had, as empowered at the previous meeting, elected Drs. Urquhart, A. D. Davidson, Wight, and Smith-Shand to serve on the General Council of the Association for the year 1874-75.

Council's Report.—The following report of the Council was read and approved of. "The Council have much pleasure in reporting that, during the past year, the Branch has not fallen off in influence or usefulness. Since the last annual meeting, the membership has increased from 78 to 83 ordinary members, although one member has died, and four have withdrawn, three from their having to leave the district, and one joining the Northern Counties Branch. The past session has been fruitful in successful meetings and scientific papers of a high standard. The Council have audited the Treasurer's accounts, and find them correct."

Treasurer's Balance-sheet.—The Treasurer's balance-sheet was next tabled. It showed a balance in favour of the Branch of £1 : 8 : 5.

President-Elect.—On the motion of Dr. GREIG, seconded by Dr. DAVIDSON of Wartle, Dr. Jackson of Aberdeen was unanimously elected President-elect for the year 1874-75; and, on the motion of Dr. GREIG, seconded by Dr. WIGHT, next year's June meeting was fixed to be held at Ellon.

Council.—The following gentlemen were elected members of Council for the year 1874-75:—Drs. Beattie (Ballater), Leslie (Stonehaven), George (Keith), and Crombie, Connan, and Forbes (Aberdeen). The Honorary Treasurer and Honorary Secretary were re-elected.

Dr. MacQuibban's Case.—A printed correspondence between Dr. MacQuibban and the military authorities, which had been sent to the members some time previously, was discussed, and a motion to the effect that—"the meeting sympathises with Dr. MacQuibban in the treatment he has received, and declares its opinion that the regulation rates of remuneration to civil practitioners are totally inadequate", was adopted; and the Secretary was instructed to transmit a copy of the resolution and a short statement of the case to the Committee of Council of the parent Association.

Medical Men as Jurors.—Dr. SMITH-SHAND reported, on behalf of the Parliamentary Committee, that the liability of medical men to be summoned as jurors had been carefully considered, and that they had determined to take no action in the case which had been complained of, as they considered that very few of the profession in Scotland could be so affected by the question as to take any interest in the matter.

Suggested Improvement in the Ordinary Meetings.—In resigning the chair, Dr. GREIG thanked the members for the honour they had conferred upon him, and suggested that it might be worth considering whether every alternate ordinary meeting might be held on a Saturday, and during the day, so as to better accommodate country members.

Dinner.—A vote of thanks to Dr. Greig and dinner in the Northern Hotel, at which twenty-two members were present, terminated the business of the meeting.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

The Vacant Professorship of Physiology.—Presentation of Portrait of Sir William Fergusson to the College of Surgeons.

THE principal topic of interest here just now in medical circles is the approaching election to the Chair of Physiology in the University. When the election will take place is, I believe, not yet fixed; but there are rumours that it is not to be until September, which is certainly giving the new professor, whoever he may be, but scanty time to prepare for the work of the coming session. Four candidates are already in the field, and a strenuous canvass is going on on behalf of each of them. All are Edinburgh men, and the curators will have no small difficulty in deciding which is the best fitted to fill the chair so ably occupied for many years past by Dr. Hughes Bennett.

Dr. Cleland is well known as the Professor of Anatomy and Physiology in the Queen's College, Galway, as one of the editors of Quain's *Anatomy*, and as a contributor of many papers on anatomical and kindred subjects to various scientific journals.

Dr. Rutherford, who is the last to enter the lists, besides the advantages of an excellent scientific training at home and on the Continent, acted as assistant to Dr. Bennett for several years, and, when he was appointed to the chair at King's College, left behind him a name as a thoroughly accurate physiologist and an excellent teacher.

Dr. McKendrick's claims, again, are rendered very strong from the fact that, for the greater part of the past three years, he has carried on the class, an annually increasing one, with great zeal and efficiency, and to the general acceptance of the students and the satisfaction of the senatus. If possession be nine points of the law, Dr. McKendrick's chances of the appointment should be very good. Besides his success as a teacher, his faculty for original research has lately been exemplified by several excellent papers on various physiological questions.

Dr. Pettigrew's name is well known for his researches into the anatomy of the hollow viscera, begun during student life, and continued during his connection with the museum of the Royal College of Surgeons in London. More recently, he has turned his attention to physiology proper, especially to that of the circulation and of locomotion. Last winter, he delivered his first course of lectures on physiology in the extra academical school, and gathered round him a very fair class.

The present contest shows very clearly the inconvenience and absurdity of the present testimonial system. In the first place, being all graduates of one school, the candidates naturally all ask the various authorities of that school to testify to their fitness for the chair—an embarrassing position for all parties, and one which we fear is got out of not unfrequently by acting on the principle of first come first served. Then, again, a most reprehensible habit is gaining ground of asking for certificates of fitness from friends and acquaintances, young and old, and quite irrespectively of whether their position is such as to carry any weight; such a way of doing things is undignified and absurd, and can serve no purpose but that of enlarging the bulk of the testimonial pamphlet and delighting the hearts of its printers. We regret that this plan is being resorted to by some of the candidates, at all events on the present occasion, the more because any one of them has sufficient solid merits and qualifications for the chair to enable him to do without this bolstering up at the hands of little known friends.

On Tuesday, there was a meeting of the Council and Fellows of the College of Surgeons, to receive a deputation appointed by the subscribers who have presented the College with a portrait of Sir W. Fergusson. This picture, which is a striking characteristic likeness, is a replica of the one lately presented to the London College of Surgeons. Dr. Maclagan, in a happy and telling speech, handed over the picture to the College in the name of the subscribers. The President, Dr. Simson, in reply, expressed the gratification the Fellows of the College felt in being able to add the portrait of Sir William Fergusson, one of their own body, to the number of those distinguished surgeons who already adorn the walls of the hall. The proceedings then terminated.

CORRESPONDENCE.

THE "PICTORIAL WORLD" AND SIR JAMES PAGET.

Sir,—The *Pictorial World* of last week contains an abstract and an illustration of a lecture given by me at St. Bartholomew's Hospital. I beg that you will allow me to state that the editor of that journal has acted in direct opposition to my wish.

Some weeks ago, a person, who said he was an artist connected with the journal, called on me, and asked leave to make drawings from some of the illustrations of my lecture. I instantly and positively refused, and wrote to the editor that nothing would be more offensive to me than the publication which he proposed. I heard nothing further from him; but he has done what I begged him not to do.

I venture to hope that I am not thought likely to be guilty of encouraging the appearance of my name in newspapers; but, lest anyone should suppose that I have even permitted the publication to which I have referred, I desire to show that I did my best to prevent it.

I am, etc., James Paget.

1, Harewood Place, Hanover Square, W., July 28, 1874.

THE EDINBURGH CHAIR OF PHYSIOLOGY.

Sir,—In your Journal of the 25th instant, you publish a letter containing strictures on my "list of works" and "letter of application" for the Chair of Physiology in the University of Edinburgh, by one who signs himself "A Physiologist". Would it not be well if your correspondent, who makes so free with my name, had the courtesy to divulge his own? Your readers would then know whether he be a physiologist, and, if so, what weight is to be attached to his utterances. With regard to the "testimonial system", I express no opinion. I presume, however, that, if the system is to be changed, the change must be inaugurated by those who elect to chairs, and not by the candidates. As far as I am concerned, I am not aware of having done anything out of place. When one applies for a chair in Britain, it is usual to publish testimonials, prefaced by a letter of application and supplemented by a list of works, with opinions of the press. Professors Goodsir, Bennett, Simpson, Reid, Turner, Sanders, and others, did so. If the opinions of the press in my case are more numerous and complimentary than is agreeable to your correspondent, that is no fault of mine. If, moreover, some of these opinions, as your correspondent insinuates (he leads no proof) are written "by personal friends and former fellow-students", then I beg to reply, and I consider it a privilege to do so, that some of my friends and former fellow-students have attained the highest eminence, and are capable of writing on any physiological problem, however abstruse. Your correspondent's statement, that "these notices were for the most part published in the daily newspapers and other journals entirely wanting in scientific authority", is simply untrue. They appeared in the *Lancet*, the *London Review*, the *British and Foreign Medico-Chirurgical Review*, the *Law Magazine and Review*, the *Medical Times and Gazette*, the *Journal of Anatomy and Physiology*, the *Engineer*, the *English Mechanic and Mirror of Science*, the *Quarterly Journal of Science*, the *Edinburgh Medical Journal*, *Nature*, the *Popular Science Review*, *Scientific Opinion*, the *Doctor*, the *Medical Press and Circular*, the *London Medical Record*, and last, not least, the British Medical Journal itself. Your correspondent avers that I endeavour "to give an impression as to my familiarity with physiological research which is not just". Who, might I inquire, thus sits in judgment upon me? I am not aware of having opened up my repertory of knowledge and resource to any but my own students. As to my visit to continental schools, condemned by your correspondent as futile, I can only state that I consider myself to have been extremely fortunate on the occasion referred to. I was privileged to talk with the foreign *savans*, to see their most recent instruments, and, in very many cases, to witness experiments undertaken expressly for my edification. Your correspondent labours to make me out an anatomist, and not a physiologist. He endeavours to draw a sharp line between anatomy and physiology, which does not exist. He has yet to learn that anatomy, physiology, and pathology run into each other. Professor Hughes Bennett is very explicit on this point. He says: "The present state of science does not permit the separation of physiology from structural anatomy, healthy and morbid." I happen to have worked at anatomy and pathology as well as physiology; but this circumstance, instead of weakening, should strengthen my claims on a chair of physiology. My preparations of the heart, regarded by me as physiological, are regarded by your correspondent as anatomical. Concerning these, Professor Milne-Edwards writes thus: "You have added much to our knowledge of the arrangement of the muscular fibres of the heart in each of the classes of the vertebrata and the action of that organ." Professor Hughes Bennett adds: "His investigations have further led him to frame a theory as to the peculiar movements of that organ being dependent on the muscles he has described, which, I think, must be satisfactory to physiologists." That I may fairly claim to be a physiologist, will appear from the following testimonial furnished by M. Ch. Robin.

"Honoured colleague,—I am very happy to learn that you are a candidate for the chair vacant in Edinburgh. I do not know at present a candidate more worthy than yourself to fill it. This opinion is not mine only; it is also that of all those in Paris who devote their time to physiology, and whom I have consulted on the subject. All, like me, recognise that your works are stamped with an originality and merit that have made your name celebrated in our country. This feature is chiefly remarkable in your researches on the organs of locomotion and locomotion itself; but it is also found in your other works."

M. Paul Bert writes in a similar strain. He says: "Several of your works are very popular in France, notably those on the structure of the heart and on locomotion. These latter have placed you very high in the estimation of French physiologists."

The statements made by your correspondent towards the end of his letter are so glaringly inaccurate, that they call for a flat contradiction on my part. He says: "It was Professor Marey of Paris who, by direct physiological experiment, by methods which were purely experimental, demonstrated the true movements of the wing in flight. Dr. Pettigrew, as an anatomist, arrived at incorrect conclusions. A physiologist was needed to investigate the problem accurately; and Professor Marey, whilst unacquainted with Dr. Pettigrew's writings (as he has remained), made the investigation."

The facts are these, and will speak for themselves. Professor Marey was in possession of my "figure-of-8" views on flight in 1867, while he did not write on the subject till 1869. He possesses all my works on flight, as I have regularly transmitted them to him as soon as published. Professor Marey has, moreover, frankly admitted, in a letter to the French Academy of Sciences (*Comptes Rendus*, May 16th, 1870), that the discovery of the figure-of-8 movements of the wing in flight was made by me, and not by him. These facts are widely known at home and on the Continent,* and can be no secret to your correspondent. As to the hostile reviews which appeared on my work *On Locomotion*, and which I am accused of suppressing, I have only to remark that they were obviously written for a purpose, and were fully and fairly answered by me immediately they were published. The following quotation from the *Lancet* will bear me out on this point. "Dr. Pettigrew, with characteristic courage, defends himself against the reviewers, and, as far as we can judge, has succeeded not only in holding his own, but in fairly turning the tide against them." (*Lancet*, May 30th, 1874.)

I am, etc., J. Bell Pettigrew.

Royal College of Surgeons of Edinburgh, July 25, 1874.

Sir,—I am delighted to see your leader *re* the Edinburgh Chair. It precisely embodies my sentiments, and will be a justification for my line of action towards two of the candidates who applied to me for testimonials. I have long thought that this abuse was most rampant in Scotland, but never before had I been asked to take part in such a disagreeable proceeding by means of a lithographed circular. This I regarded as discourteous, if not insulting; so I determined to take no more notice of two applications of this kind than I should of other circulars—they were committed to the waste-basket.

The system of puffing pursued by one of these gentlemen, who collected together everything favourable that had ever been said about himself or his writings, seemed to me simply intolerable. The whole thing is an abuse of the testimonial system, which ought to be put down. Testimonials should, in my opinion, be limited to four or five, coming from those best entitled to speak, and to whom the candidate may be well known, either personally or by his writings.

I am, etc., F.R.S.

Sir,—It would, I am sure, be a satisfaction to many of your readers, if the self-styled "Physiologist", who anonymously attacked Dr. Pettigrew in your last number, would unmask himself, so that we might feel assured of the public spirit and purity of motive that dictated his extraordinary epistle. It is so unfair and unprecedented a proceeding to assail a candidate for a scientific appointment, during the period of his candidature, with inuendo and misrepresentation, that we may be excused if, until we know more of the person with whom this proceeding has originated, we receive with some doubt his irresponsible statement that he has "no personal views in respect to the Edinburgh Chair". Surely "A Physiologist's" momentous opinions upon the testimonial system might have kept until the close of the Edinburgh contest. It is one thing to support a candidate for an appointment, but it is quite another thing to traduce his opponents. If it be a physiologist who is the author of the letter in question, I can only say, that it has been reserved for him to afford the first instance of a study of the animal functions blunting all gentlemanly feeling. Nothing but a protracted course of reckless vivisection can account for his frame of mind.

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* I am favoured with a testimonial from Professor Fick of Würzburg, in which the following passages occur. "It appears to me, without doubt, that *the extremely fertile idea* of founding the theory of flight upon the principle of the Archimedean screw, belongs *to you* and not to Marey. I consider this idea to be *a very rich conquest in science*." (The italics are Professor Ficks.)

I am, etc., J. Crichton Browne.

West Riding Asylum, Wakefield, July 27th, 1874.

⁂ Dr. Crichton Browne's strictures are severe; but on one point we can reassure him: the author of the letter was a physiologist of great eminence, and altogether unconcerned, except for the interests of science.

MILITARY AND NAVAL MEDICAL SERVICES.

Dr. William Macleod, R.N., Deputy Inspector-General of Hospitals and Fleets, who has been in charge of the Royal Naval Lunatic Asylum at Great Yarmouth for eight years, has just been, on the nomination of Sir Alexander Armstrong, reappointed by Mr. Ward Hunt for a further period of three years. At present, there are about two hundred patients in the establishment.

COURT-MARTIAL ON A NAVAL SURGEON.

A court-martial was held on board Her Majesty's ship *Royal Adelaide*, flagship at Devonport, on July 25th, for the trial of Mr. Henry Baskcomb Harrison, surgeon, of Her Majesty's ship *Tamar*, who was charged—1, with leaving his vessel upon July 3rd, without first informing the first lieutenant; 2, with not reporting his return to the first lieutenant; 3, with behaving with contempt to the first lieutenant, his superior, in saying to him, "I am not going to be humbugged by you;" and, 4, with behaving with contempt to Captain Grubbe, in not answering his questions, and with saying to him, "I would prefer to be tried by court-martial rather than remain in the service." The court found that all the charges were proved, and adjudged the prisoner to be severely reprimanded, and dismissed Her Majesty's ship *Tamar*.

THE CLAIMS OF THE ARMY MEDICAL OFFICERS.

Sir,—It may be quite unnecessary for me to direct your attention to the "evasive absurdity" of the Secretary for War's answer to Dr. Lush's question. The profession ought not to permit the reconsideration of the late disastrous warrant to be practically "shelved" by saying that the whole question of the pay, etc., of the army generally, was under consideration, as medical men who enter the service as "skilled professional" officers cannot, under any circumstances, afford to have their claims considered in the same light as those of unskilled officers, who enter the service to learn the best part of *their* profession at the government expense. It might have as well been stated that "the question could not be fully entered into until King Koffee had paid up all the Ashantee war indemnity". I am quite sure I need do no more than direct the attention of the British Medical Association to the subject, feeling that they are fully able to deal with it.

I am, etc., Medicus.

THE POSITION OF THE ARMY MEDICAL OFFICERS.

Sir,—According to the writer who signs himself "Quadraginta", and refers to the forthcoming reorganisation of the department, in the *Lancet* of July 18th, those outside the department might be led to believe that, under the regimental system, a great number of medical officers of corps were fit for little else than "boon companionship", or, as the writer puts it, "billiard-playing B.S. style of jolly-good-fellow doctor". Allusions such as these will not assist towards furthering a wish the most of us have—viz., a return to the regimental system. Besides this, such statements, being untrue, deserve from every quarter implicit denial; for, were they correct, I ask, would commanding officers of regiments be so much in favour of having their own surgeons (as under this system they had)? And that this is unquestionably the fact, cannot be disputed.

From personal experience and that of other medical officers of considerable standing in the service, I say that "unification" has done absolutely nothing towards making an army doctor thought more of by his brethren of the combatant branches than he was under the regimental system, when, undoubtedly, he was thoroughly respected and liked in his corps for his professional and social qualities, if he cared to make himself so. If "unification" means (as it has hitherto done) the knocking about at great expense, personal inconvenience, and at the shortest possible notice, of surgeons in the army, without having any permanent station or regiment, it is not human nature to expect that they will display zeal, efficiency, or contentment. The only desire all ranks have now is to sever their connection with the service, if they could get ever so small a stipend to do so.

Things are bad enough at home under the new system, and the accounts from India go very far to prove that "unification" has been accepted there with the same disgust and discontent as it has been at home. How is it possible the service can benefit when such widespread discontentment exists?

It is utter folly to argue that the fact of medical officers knowing the men of regiments or not is of no significance. A very clear proof that it is of the greatest importance is this, that, with every strange surgeon who assumes charge, all the schemers and "hospital birds" are always to the front in reporting themselves sick, and requesting to be excused from this, that, or the other duty; and that they succeed in duping the new doctor, is but too well known. How is the surgeon, who is a perfect stranger, to know and be "up to" such cases? This is only the work of years of association with a corps. I am, etc.,

July 27th, 1874. Army Surgeon.

Sir,—In my last letter, I incidentally made some remarks relative to our position in the service; and it is with great pain that I see the head-quarter tone taken by your contemporary the *Lancet*. It never was, and can never be, anything but what it is—a paper thoroughly and completely wanting in that *comme-il-faut* spirit which should exist. It is far from my object now in writing to you to censure the tone taken by the editorial staff and the powers that be, further than to allude, in passing, to the intense disgust for them and theirs in which my naval medical brethren hold them for their late conduct. To suppose that a man with the slightest ability or pretence to the same would enter the service under the present existing circumstances, is absurd in the extreme. It would be better by far that a millstone were tied round his neck, and that he were thrown into the sea; or rather better, perhaps, for him, that he were never born, or had seen this world's light. For a gentleman with a good education and a knowledge of his profession to enter the service with his present rank and prospects, would be sheer madness. It offers, perhaps, an indifferent opening for a sweeping of the medical schools, who, from want of intelligence, would not be trusted with the life of a civilian on shore. To be entrusted with the life of poor Jack, officer, and man, committed to his care by the Lords Commissioners, is by the country, I am sorry to say, permitted. The utter disgust in which we hold our position on first entering, after we have learned what relative rank means (for the first six years, until we are permitted to don our second stripe), precludes us, when possible, from entering society excepting in evening clothes. I mean by this, mufti. It is a disgrace to his cloth at large for a surgeon, a man of education, to be seen perambulating about like a singed pigeon with his one stripe and his scales, etc., at an assembly. I for one, like the majority, feel it so ludicrous and absurd, that I never, as a rule, go to any place where uniform is compulsory. To rank with a newly fledged sub-lieutenant, a man of twenty summers or so, is, to say the least, very absurd—a man, furthermore, educated at the expense of his country; while the surgeon of twenty-five years, who for his whole life has been training at his own and at a very considerable expense, has only the same rank, and holds the same for six years. If men will enter under these conditions, I very reasonably ask,

Quid Nunc, R.N.?

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Tuesday, July 21st.

Slaughter-houses, etc., Bill.—Earl Beauchamp, in moving that their lordships go into Committee on this Bill, said that in 1844 an Act was passed, the 53rd section of which was aimed at prohibiting, after the period of thirty years from that date, the carrying on within the metropolis of certain noxious trades enumerated in that section. It had been found that inspection had hitherto worked very satisfactorily, and there was every reason to believe that if the Bill now before their lordships became law, under more stringent regulations and a system of closer inspection, all cause of complaint in respect to those trades might be removed. The custom of slaughtering in slaughter-houses within the metropolis increased the supply of animal food for the poor of London. A large quantity of what was known as offal was consumed by the poor as food, and this could not be if it were not sold fresh. The Bill now before their lordships would afford additional powers to the Metropolitan Board of Works and the Commissioners of Sewers, for the making of bye-laws in respect of the due regulation and inspection of places in which certain noxious trades were carried on. Clause 3 permitted the businesses of fellmonger, tripe-boiler, and slaughterer of cattle to be established anew with the sanction of the local authority. The Bill had received the approval of the trades affected by it, and also of the Metropolitan Board of Works.—The various clauses of the Bill were agreed to after certain amendments proposed by Earl BEAUCHAMP and other noble lords.

Factories (Health of Women, etc.) Bill.—This Bill was read a third time and passed.

Vaccination Act (1871) *Amendment Bill.*—This Bill was read a third time and passed.

Monday, July 27th.

The Public Health (Ireland) Bill.—The Duke of RICHMOND, in moving the second reading of this bill, said that its principal object was to constitute in Ireland urban districts for sanitary purposes, pretty much according to the practice which now prevailed in England, so that drainage and other works might be carried out.—Lord REDESDALE thought that in this bill sufficient care had not been taken in reference to the acquisition of property for water-supply and other purposes. Further, there were fifty or sixty sanitary Acts referred to in this Bill, all which were to form part of the law; and he would urge upon their lordships that the practice of incorporating a vast number of statutes, instead of consolidating the law, produced very great inconvenience. He hoped that the Government would next session bring in a bill to consolidate the sanitary law.—The Bill was read a second time.

HOUSE OF COMMONS.—Friday, July 17th, 1874.

The Banbury Guardians and Vaccination.—Lord R. CHURCHILL asked the President of the Local Government Board if he were aware that the Banbury Board of Guardians passed a resolution on the 6th day of November, "That this Board do not in future direct prosecutions against those persons who object to have their children vaccinated;" and if it were true that an outbreak of small-pox took place lately in that town.—Mr. SCLATER-BOOTH said it was a fact that in November last the Banbury Board of Guardians passed such a resolution as that referred to in the question. The subject was brought under the notice of the Local Government Board, who immediately pointed out to the Guardians that the resolution could have no legal force or effect, because it was in defiance of the provisions of the law. It was also true that in the spring of this year a serious outbreak of small-pox occurred in the Banbury district, and the Local Government Board thereupon called the attention of the Guardians to the serious responsibility which they would incur by continuing to neglect putting in force the law upon the subject and providing facilities for vaccination and revaccination. It did not appear that the Guardians had rescinded their resolution, and the question arose what course should be pursued in order to enforce obedience to the law. There was some difficulty in the matter in consequence of a doubt as to the proper course to pursue. The law officers had advised the Local Government Board that the vaccination officers were bound to carry out the requirements of the law, even in the face of such a resolution of their Guardians as that referred to. This seemed to be a position in which the vaccination officers ought not to be placed, and a short Bill had been prepared and submitted to the other House of Parliament, which would set all doubts aside for the future. He had no doubt that when that Bill came down to that House it would be speedily passed into law, and the difficulty would thus be got over.

Thursday, July 23rd.

Adulteration of Food Act.—In answer to Sir H. Peek, Mr. SCLATER-BOOTH said that since his hon. friend and also the hon. member for the City of London had, with a large and influential deputation, waited upon him at the Local Government Office, requesting that the Government would take steps to suspend the operation of the law with regard to prosecutions under the Adulteration of Food Act, he had consulted his right hon. friend the Home Secretary, who confirmed the opinion he had himself expressed to the deputation, that it would be quite impossible for the Government to interfere in any way with the execution of the law on this subject, and that they were not prepared to bring in a Suspensory Bill. But, at the same time, having regard to the result of the very full inquiry that had been instituted by a Select Committee, the Government hoped that the prosecuting authorities would be very careful in taking proceedings under the Act, especially with regard to tea, as to which much difficulty, and some injustice, had arisen. Great care would be taken that no further recommendations were made as to the appointment of analysts until the subject had been considered by Parliament.

Friday, July 24th.

Factories (Health of Women, etc.) Bill.—The Lords' amendments were considered and agreed to.

Supplementary Estimates.—The sum of £4,404 was voted for the Dr. Livingstone grant. The following are the particulars:—To be vested in trustees for the benefit of the family, giving Dr. Livingstone's sisters a life interest, £3,000; payments to Chumah, Susi, and fifty-eight other followers of Dr. Livingstone, £904: funeral at Westminster Abbey, £500.

Monday, July 27th.

Army Medical Service.—Dr. LUSH asked the Secretary of State for War, whether he would state how far he was prepared to give effect to representations on behalf of the Army Medical Service lately made to him by Sir William Fergusson, Mr. Ernest Hart, and others, spokesmen of a deputation of the British Medical Association.—Mr. HARDY said he answered a question on this subject not very long ago. On all questions connected with the pay and allowance of these medical officers, he must reserve his decision.

The Outbreak of Fever in Marylebone.—In reply to Dr. Lush, Mr. SCLATER-BOOTH said that within the last few days he had received a detailed report on the late outbreak of enteric fever in Marylebone. In his opinion it would not be desirable to lay it on the table of the house, but the more material portions of it would be published in the Appendix to the report of the Local Government Board.

Committee of Supply.—On the vote of £166,000 for the payment for lunatics for England and Scotland, Mr. RAMSAY expressed a strong hope that the Government would not, in making its promised contribution towards the maintenance of lunatics in Scotland, make any regulations which would interfere with the present mode of treating pauper lunatics in that country. That system had been described by the most competent medical authorities to be the best that could be devised.—Sir G. BALFOUR hoped that, before the money was given to Scotland, time would be allowed for those who were interested in the subject to make up their minds as to the best manner in which it should be distributed.—The CHANCELLOR of the EXCHEQUER said that a sum of between £35,000 and £37,000 would be proposed in next year's votes for Scotland in connection with the maintenance of lunatics. With respect to the point of leaving the distribution of the money to the Scotch authorities, he would give it his best consideration. —Mr. SCOURFIELD reminded the Committee that the question now raised with regard to Scotland was one in which the whole country was interested, viz., the detention of lunatics in workhouses.—Sir E. COLEBROOKE was strongly impressed with the belief that it would be impossible to work out the proposal of the Government consistently with the treatment of lunatics, which was more fully developed in Scotland than in England, without its interfering with the best treatment of pauper lunatics. He suggested that the Government should reconsider the matter, with the view of giving local relief in a more equal manner than now proposed.—The vote was agreed to.—The vote of £5,692 in aid of the local cost and maintenance of pauper lunatics in Ireland was agreed to.

OBITUARY.

HENRY C. B. STEELE, M.R.C.S., L.S.A.

MR. HENRY STEELE died on July 11th, in his sixty-sixth year, at Stoke Ferry, Norfolk, where he had practised for many years. He succeeded his father, the late Henry Steele, Esq., who was the son of Dr. Peter Steele of Witham, in Essex, and who died in 1844, having settled at Stoke Ferry, at the commencement of the present century. The deceased was one of our oldest associates, having joined when the "Norwich Medical Book Club", of which he was a member, was merged in the East Anglian Branch of the Association.

Although originally of a robust and vigorous constitution, and of rigidly temperate habits, the wear and tear of a large country practice ultimately broke him down. In the early part of the present year he found his health and strength failing, and sought the advice of Dr. Andrew Clark, Dr. Sibson, and Dr. Daldy of Finsbury Square, all of whom concurred in the necessity of absolute rest and cessation from professional work. Unfortunately, this sound advice was so at variance with his natural energy and activity of mind, that he either would not or could not submit to the necessary restraint, but continued to work on to the last ; thus he may be said to have died in harness.

During his prolonged and unusually painful illness, arising from cardiac and aortic disease associated with albuminuria, he received the kindest and most unremitting attention from his professional friend and neighbour, Mr. Marriott of Swaffham. Only a few days before his death, Dr. Daldy came down specially from London to meet Mr. Marriott in consultation, with the hope of suggesting some means of prolonging life or mitigating suffering ; an instance of true professional and instructive sympathy and kindness, which was thoroughly appreciated by the patient and his sorrowing relatives, and one which we record with much satisfaction.

Mr. Steele was followed to the grave by his three elder sons and his brothers, Mr. P. Steele, of the Royal Exchange Assurance, London, and Dr. A. B. Steele of Liverpool; and by a large number of friends and patients by whom, during his long professional career, he had been much beloved and respected. He has left a widow and seven children, the eldest, now studying at St. Bartholomew's, will succeed to his late father's practice on the completion of his curriculum.

GEORGE BROWN, M.D., F.R.C.S.

Dr. George Brown was a younger brother of the late Mr. Baker Brown. He received his medical education at St. George's Hospital and at the Grosvenor Place School of Medicine, where he took an anatomical prize.

He became a Member of the College and a Licentiate of the Hall in 1839, and soon afterwards settled in practice at Kensal Green. Here he resided for upwards of thirty years, holding several parochial and other appointments, and being very highly esteemed. Dr. Brown took the Fellowship of the College of Surgeons by examination in 1850, and in 1871 graduated at St. Andrews. Shortly after he retired from practice on a moderate fortune, but did not long enjoy his well-earned repose. He died at Brighton on the 2nd instant, in the sixtieth year of his age, after a tedious and most painful illness.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 23rd, 1874.

Davies, William Charles, Buckingham Palace Road
Hawken, Giles Lockwood Lang, Camelford, Cornwall
Heale, Alfred Lawson, Luton, Bedfordshire
Phillips, Easton Abbiss, Bury Street, Aldgate
Ranking, George Speirs Alexander, St. Bartholomew's Hospital

The following gentlemen also on the same day passed their primary professional examination.

Clark, William Theobalds Blanton, St. Bartholomew's Hospital
Gascoigne, William Ellis, Queen's College, Birmingham
Hindle, George, St. Bartholomew's Hospital
Miller, Frederic Daniell, King's College
Parker, William Herbert, Charing Cross Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERDEEN, City of—Public Analyst: 2s. 6d. to 10s. 6d. per analysis, and £25 for fitting out Laboratory. Applications, 10th instant, to James Valentine, Clerk of Police.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications, 10th instant, to Sir W. M. Muir, Director-General.

BALLACHULISH SLATE QUARRIES—Medical Officer: £200 per annum, guaranteed. Applications, 1st instant, to Mr. Gardener, Bank of Scotland, Ballachulish.

BIRKENHEAD BOROUGH HOSPITAL—Honorary Medical Officer. Applications, 6th instant.

BRIGHTON AND HOVE DISPENSARY—Physician-Extraordinary. Applications, 3rd instant, to Somers Clarke, Honorary Secretary.

BRIGHTON AND HOVE PROVIDENT DISPENSARY—Surgeons for Districts 3 and 5. Applications, 4th instant, to J. Dennant, Honorary Secretary.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury—Resident Surgeon and Apothecary: £80 per annum, increasing to £100, board, lodging, etc. Applications, 4th instant, to George Fell, Solicitor.

CASTLECOMER UNION, co. Kilkenny—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ballyraggett Dispensary District: £120 per annum, and fees. Applications, 6th instant, to John Phelan, Hon Sec.

CLIFDEN UNION, co. Galway—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Roundstone No. 1 Dispensary District: £100 per annum, and fees. Applications, 7th instant, to Charles Stewart, Honorary Secretary, Rosroe, Toombeola.

CLITHEROE RURAL SANITARY DISTRICT—Medical Officer of Health: £50 for one year. Applications, 1st instant, to John Eastham, Clerk.

DOWNPATRICK UNION, co. Down—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Strangford Dispensary District: £100 per annum, and fees. Applications, [illegible] instant, to Samuel Seed, Assistant Secretary, Ballylena, Strangford.

DURHAM UNIVERSITY COLLEGES OF MEDICINE and PHYSICAL SCIENCE, Newcastle-upon-Tyne—Professor of Biology combined with Physiology: £450 per annum, and a portion of fees. Applications, 15th instant, to T. Wood Bunning, Secretary to College of Physical Science.

EALING URBAN SANITARY DISTRICT—Medical Officer of Health: £75 per annum. Applications, 5th instant, to A. Hemsley, Clerk.

HULL GENERAL INFIRMARY—Resident Assistant Surgeon.

INDIAN MEDICAL SERVICE—Fourteen Surgeons. Applications, 10th instant, to T. P. Pears, Major-General, Military Secretary.

INVERNESS DISTRICT ASYLUM—Assistant Medical Officer: £70 per ann., apartments, etc. Applications, 19th instant, to Dr. Aitken.

KENMARE UNION, co. Kerry—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Sneem Dispensary District: £100 per annum, and fees. Applications, 4th instant, to T. M. Jermyn, Hon. Sec., Less Cottage.

LEEDS GENERAL INFIRMARY—Resident Medical Officer. Applications, 5th instant, to J. J. Pickles, House-Physician.

LIVERPOOL LADIES' CHARITY and LYING-IN HOSPITAL—Medical Officer for the North District. Applications, 10th instant, to the Secretary.

LIVERPOOL NORTHERN HOSPITAL—House-Surgeon: £100 per annum, residence and maintenance. Applications, 3rd instant, to Robert Unsworth, Secretary.

MACCLESFIELD GENERAL INFIRMARY—Resident Medical Officer: £120 per annum, board, and residence. Applications, 3rd instant, to John May, Honorary Secretary.

METROPOLITAN FREE HOSPITAL—Assistant-Physician. Applications, 4th instant, to George Croxton, Secretary.

MONMOUTH UNION—Medical Officer for the Rockfield District: £40 per ann.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting Physician. Applications, 13th August, to Dr. H. Berkeley, Resident Medical Superintendent.

NEWPORT (Monmouthshire) INFIRMARY and DISPENSARY—Resident Medical Officer: £100 per annum, furnished lodgings, board, etc. Applications, 5th instant, to E. W. Willey, Secretary.

NORTH DARLEY URBAN SANITARY DISTRICT—Medical Officer of Health. Applications, 4th instant, to S. Mills, Clerk.

NORTHFLEET URBAN SANITARY DISTRICT—Medical Officer of Health. Applications, 4th instant, to Messrs. Sharland and Hatten, Clerks, Gravesend.

OWENS COLLEGE, Manchester—Professor of Anatomy: minimum emoluments, £500 per annum. Applications, 1st instant, to the Council, under cover to J. Holme Nicholson, Registrar.

PENRITH RURAL SANITARY DISTRICT—Medical Officer of Health. Applications, 4th instant, to W. B. Arnison, Clerk.

QUEEN'S HOSPITAL, Birmingham—Dispenser: £100 per annum. Applications, 17th instant, to the Secretary.

ROYAL FREE HOSPITAL—Junior House-Surgeon. Applications, 5th instant, to James S. Blyth, Secretary.

ROYAL NAVAL MEDICAL SERVICE—Surgeons. Applications, 6th instant, to A. Armstrong, Director-General.

ST. MARY'S HOSPITAL, Paddington—House-Surgeon.

SLOUGH URBAN SANITARY DISTRICT—Medical Officer of Health: £25 for one year. Applications, 3rd instant, to C. T, Phillips, Clerk.

SOUTHAMPTONSHIRE LUNATIC ASYLUM, Knowle—Junior Assistant Medical Officer: £80 per annum, increasing to £100, board and lodging. Applications, 15th instant, to Dr. Manley.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford—House-Surgeon and Secretary: £100 per annum, board, lodging, etc. Applications, 1st instant, to W. H. Dudley, Secretary.

WANTAGE UNION—Medical Officer and Public Vaccinator for the Ilsley District: £55 per annum, and fees.

WEST NORFOLK and LYNN HOSPITAL—House-Surgeon and Secretary.

WEST SUSSEX, EAST HANTS, and CHICHESTER GENERAL INFIRMARY and DISPENSARY—Assistant House-Surgeon: £20 per annum, board, lodging, etc. Applications, 5th instant, to Dr. Macpherson, Secretary.

WEST WARD UNION, Westmoreland—Medical Officer for the Patterdale District: £10 per annum, and fees.

WITNEY UNION—Medical Officer for the Bampton No. 1 District.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Irvine, J. Pearson, M.D., appointed Assistant-Physician to Charing Cross Hospital.

Prichard, A. W., M.R.C.S., appointed House-Surgeon to the Royal Westminster Ophthalmic Hospital.

*Smith, R. Shingleton, M.D.Lond., B.Sc., appointed Lecturer on Physiology in the Bristol Medical School.

Spence, James B., M.D., late Assistant Medical Officer, County Asylum, Burntwood, Staffordshire, appointed Assistant Medical Officer to the Asylum for Idiots, Earlswood.

*Turner, A. Pythias, M.R.C.S., L.S.A., appointed House-Surgeon to the East Suffolk Hospital at Ipswich.

Wilson, John, M.D., appointed Consulting Physician and Surgeon to the Northern Infirmary, Inverness.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

Harris.—On July 22nd, at 13, Marine Parade, Worthing, the wife of *William J. Harris, Esq., Surgeon, of a son.

MARRIAGE.

Clouting—Clark.—On July 23rd, at St. Mary's Church, Newmarket, by the Rev. A. Denman, J. R. Clouting, Esq., M.R.C.S.E., Thetford, to Grace, second daughter of J. F. Clark, Esq., Newmarket. No cards.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

DUMBLEDORE should see an aurist. Without a physical examination, it would not be possible to give a diagnosis.

A MEMBEE.—A. B. should offer to hand over the case to C. D. on his return.

THE ANNUAL MEETING.

MEMBERS proposing to be present at the Annual Meeting in Norwich are requested to communicate their intention without delay to Dr. Beverley. A form for the purpose will be found in the advertisement pages of this week's JOURNAL.

BRANCH PRESIDENT'S ADDRESS.

AN ASSOCIATE (Upper Norwood).—We are aware of the defects of style, and of some diffuseness of treatment in the address in question. Some leniency of judgment must, however, be shown towards writers who are not well practised; and, on the whole, the addresses of Branch Presidents which we have this year published seem to us of considerable interest, and not such as "will give the enemy cause to triumph". We hope that, notwithstanding their publication, our Associate will continue to feel that he has reason to be "honestly proud of our JOURNAL".

TREATMENT OF PROLONGED SLEEPLESSNESS.

SIR,—"Exhausted Brain" will possibly procure sleep for his patient by producing anelectrotonus of the spinal cord and brain, as recommended by Dr. Althaus in his work on *Medical Electricity.*

I have found the constant current most useful in some cases of sleeplessness; and it was the only successful remedy in an obstinate case in which chloral hydrate, bromide, potassium, and many narcotics, had been tried in vain. I use a Weiss's battery, and have two large pads—one, to fit the neck; the other, which is an old large reflector covered with chamois leather, is placed over the stomach. The anode is applied to the back; the cathode to the stomach; and I use from ten to fifteen cells for about half an hour.

If your correspondent makes trial of this remedy, I shall be glad to learn the result.

I am, etc.,

WILLIAM BIRD.

York, July 14th, 1874.

SIR,—The JOURNAL of July 11th, 1874, contains, amongst the Notices for Correspondents, some remarks on the treatment of the aforesaid malady, and your readers are asked if they can suggest any suitable remedy for such an unmanageable affection. In the first place, I would observe that I think the writer is hardly justified in the opinion he has given as to the probable cause of this distressing complaint—viz., an overworked brain. The history of the case, as given by him, does not seem to me to point out that this had ever occurred to the individual in question. Some other cause, at present unascertainable, no doubt exists, and, ere long, will probably be discovered.

My object in making this communication is to call attention to the relative properties of the bromo-iodine waters and baths of Woodhall Spa in Lincolnshire, having myself experienced their beneficial action after a brief sojourn in that very agreeable locality, where the air is balmy and invigorating. As I have recently returned from this neighbourhood, I shall be most happy to give any further particulars that may be required, if the writer will only communicate with me on the subject, either by letter or otherwise, to my address, as below.

I am, etc., EDWIN HAWARD, M.D.

39, Harley Street, Cavendish Square, July 21st, 1874.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Printing Office, 37, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

LET BROTHERLY LOVE INCREASE.

THE *Horsham Advertiser* contains the following report: we shall only mention that Mr. Powell is himself a surgeon, and leave him to his reflections as to the propriety of expressing the pleasure with which, under other circumstances, he would have been willing to undersell a hard-worked brother, and of leading the opposition to an act of mere justice, well deserved at the end of fifteen years' service.

Board of Guardians: Increase of Salary to Mr. Ashburner.—The Chairman read a letter from Mr. Ashburner, medical officer at the union workhouse, in which he applied for an increase of salary. In the letter he stated that he was now doing more than double the work at the union house than he was twelve years ago, and the remuneration was less in consequence of the abolition of fees. His work had increased, although that of the other medical officers had diminished. The house was now an hospital for the whole union for bad cases. In addition to extra work, he had to provide his own drugs and instruments.—The Chairman said Mr. Ashburner received £30 a year now for the workhouse, the same as when he was appointed.—The Rev. J. O. McCarogher said £30 a year was a very small sum. Since the infirmary ward had been built, it was always full; there had been more work, and Mr. Ashburner's salary had decreased during the last two years. He therefore proposed that his salary for the house should be increased by £10 per year.—Mr. Hurst said he would second the motion, because Mr. Ashburner's salary had been really cut down when the fees were abolished.—Mr. Powell thought that if they once broke their system of not raising salaries they might be continually increasing, as all the subordinate officers in the workhouse would be applying for an addition to their stipends. He thought they should put the good and bad together in a case like this, to look at all points, and take into consideration Mr. Ashburner's out-districts.—Mr. T. W. Cowan said Mr. Ashburner's salary was something like 4s. per case (excluding the hospital cases), while some got as much as 14s. each case.—Mr. Knight: But then he has not got anything like the distance to travel in these cases that the other medical officers have to theirs.—The Chairman cordially supported the application for an increase of salary. When Dr. Winkworth left, there was no hospital, and he only attended at the workhouse three times a week. Now Mr. Ashburner sometimes came there three times a day. He also had to find drugs; and he (the Chairman) sometime ago saw a bill to him for drugs, which came to within £3 of his salary. The only reason he (in common with other medical officers) took the office was to keep strangers out of the town.—A Member: We must not forget that the infirmary ward was built at the workhouse so as to concentrate his cases, and save him going long distances. His other districts are consequently lightened.—Mr. Knight thought Mr. Ashburner's salaries were within a few pounds of the whole of the medical officers in the Dorking union.—Mr. Powell said Mr. Ashburner was receiving a sum of nearly £300 *per annum.* Were he a young man, he would be glad to do the work himself for a £100 a year less.—Mr. Cowan said Mr. Ashburner's salary was £172 10s. *per annum*, exclusive of £30 a year for the workhouse.—Mr, McCarogher said they had no right to mix the two. The workhouse was separate from the other.—The motion was the put to the meeting, and there voted nine for and seven against.

A CORRESPONDENT forwards us the following cutting from the *Bazaar and Exchange and Mart* of June 11th, 1874, with a request for its publication.

"E. WOOD.—Medical queries are answered gratis in the *Weekly Budget*, 13, Red Lion Court, Fleet Street (1d.); *Medical Notes and Queries* (2d.), 44, Catherine Street, Strand; and *English Mechanic* (2d.), 31, Tavistock Street, Covent Garden. All these appear weekly: particulars can be learnt in the papers. All the answers are given by duly qualified medical men: those in *Medical Notes and Queries* by a practitioner of twenty-four years' standing; those in the *English Mechanic* by William Stone, M.A., M.B.Oxon., Fellow of the Royal College of Physicians, and Senior Assistant-Physician and Lecturer at St. Thomas's Hospital. They are all excellent papers, and a person buying one number will probably continue a subscriber."

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, July 27th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. T. B. Curling, London: Miss Broxholm, Sunbury; Mr. E. Bellamy, London; Dr. J. Bell Pettigrew, Edinburgh; Dr. John Pickles, Leeds; Dr. J. Hughlings Jackson, London; Mr. Clement Dukes, Rugby; Mr. A. Godrich, Fulham: Our Paris Correspondent; M. L. Ginie, Toulouse; Dr. E. J. Wilson, Cheltenham; A Correspondent; Mr. John Walker, Glasgow; Mr. Eassie, London; Dr. George Johnson, London; Mr. Banks, Risely; Mr. T. M. Stone, Sidmouth; Dr. James Russell, Birmingham; Mr. J. Andrews, London; Mr. W. P. Swain, Devonport; Mr. Eastes, London; Mr. W. Johnson Smith, Greenwich; Dr. J. Matthews Duncan, Edinburgh; Mr. T. Holmes, London; Dr. Edis, London; Dr. Edward Copeman, Norwich; Dr. J. Russell Reynolds, London; M. M.; Dr. Herbert Snow, London; Dr. A. Platt Wilks, Ryde; Dr. J. Finlayson, Glasgow; Mr. James B. Spence, Earlswood; Dr. R. S. Smith, Clifton; Dr. W. M. Kelly, Taunton; A Member; Dr. Aitken, Inverness; Mr. J. R. Clouting, Shipdham; Mr. Oscar T. Woods, Hatton Asylum; Quid Nunc, R.N.; Mr. Wm. J. Harris, Worthing; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Joseph Bell, Edinburgh; Mr. J. Alexander, Leslie; Dr. Frank Howard, Athlone; Mr. S. G. Sloman, Farnham; Dr. Sheen, Cardiff; Sir James Paget, London; Mr. G. D. Monroe, Ealing; Dr. Crichton Browne, Wakefield; Dr. C. Moss Campbell, Staunton; Mr. Lawson Tait, Birmingham; Dr. Marion Sims, Paris; Dr. Cheadle, London; Mr. P. H. Holland, London; Dr. Grimshaw, Dublin; Dr. Dyer, Ringwood; Sir John Rose Cormack, Paris; etc.

PART OF A CLINICAL LECTURE
ON APHASIA.

By JOHN W. OGLE, M.D.,
Physician to St. George's Hospital, etc.

In the number of the BRITISH MEDICAL JOURNAL for July 4th (see page 19) is an interesting quotation by Mr. Sidney Coupland from the pages of Goethe's *Wilhelm Meister* (originally published in 1795), in which the author describes that condition which we now term aphasia as associated with hemiplegia of the right side of the body. The subject of it was the father of Theresa, who (according to the narrative, which is not pursued by Mr. Coupland) had something "on his mind", which he was unable, though very anxious, to confide to his daughter, and which was evidently of the utmost importance to her (probably the account of some treasure destined for her, to the exclusion of her hateful mother). The father's eyes, we are told, no longer spoke his wishes as in times gone by, owing, of course, to paralysis of the muscles of expression; and he quickly became insensible, and died. As Mr. Coupland remarks, the description by Goethe[*] of the aphasic patient is very graphic, and evidently an accurate one; and thanks are due to him from all students of nervous affections for drawing attention to the passage in question; as all will admit that there is a peculiar pleasure in observing how facts of old date, which have a long time ago been noted without reference to any theory, are capable of furnishing illustrations of laws which have been but recently determined; and the interest in such cases is further enhanced when the original observer happens to have been one not educated to clinical observation. In the case of Goethe, it is true, as Mr. Coupland says, that he was educated for the legal profession; and thus the precision and truth of the quotation are the more admirable. But we must not forget that Goethe was an acute observer of physical phenomena; and he is well known to have had opportunities of studying physics, mechanics, chemistry, and even medicine, in addition to poetry and literature.[†] He owed his friendship with Schiller to his botanical studies.

Did opportunity permit, it would be an interesting task to quote highly important cases which exist of aphasia, as noted in connexion with both right and left hemiplegia, by physicians long prior to 1836, when the true import of the affection began to be more clearly recognised, and was thought to be better understood. I desire, however, at the present time, to do little more than adduce one or two cases additional to that of Mr. Coupland in which non-medical observers have delineated true aphasia in an unmistakable manner.

The case described by Goethe, as before stated, was published in 1795; but in 1782 our great lexicographer and moralist, Dr. Samuel Johnson, one whom our profession must especially regard, seeing that he was much addicted to chemistry, and was the loving eulogist of physicians,[‡] described an attack which, at the age of seventy-four, he had himself experienced, accompanied by "agraphia", the circumstances of which cannot fail to be interesting. My gleanings of Johnson's medical history are, of course, from Boswell's *Life.* It seems that the illustrious Doctor, who ever since the age of twenty had been ailing, and was considered by his friend Sir Lucas Pepys[*] an intractable patient,[†] had for some weeks been the subject of asthma, for which at different times he had lost fifty ounces of blood by phlebotomy (though, owing to the supervention of dropsy, this had been of late forborne by Pepys' advice), and had taken much opium. In March of 1782, his old friend and physician, Dr. Lawrence, who was President of the College for seven years, to whom the Doctor was in the habit of writing descriptions of his own ailments in Latin (and the death of whose wife gave occasion, as Dr. Munk says, to one of the finest letters which Johnson ever wrote), had become very deaf, and subsequently had been affected by paralysis in which speech was affected; and it is clear that he had hemiplegia of the right side, inasmuch as Dr. Johnson, writing of him afterwards, observed, "If we could have again but his mind, and his tongue in his mind, and his *right* hand,[‡] we should not have to lament the rest." On the 17th of June following Dr. Lawrence's attack of right hemiplegia with loss of speech (? aphasia), Dr. Johnson himself, at 3 A.M., after sitting for his picture on the previous day, subsequent to which he was more than usually comfortable and cheerful, woke out of sleep and sat up (as had long been his custom), when he felt a confusion and indistinctness in his head, which lasted, as it appeared to him, half a minute, and was accompanied by *loss of speech.* The details which he has recorded of his attack are so circumstantial and precise, and evidently so accurate, that I shall offer no apologies for quoting them pretty fully. In the course of the day of the attack, he was *able to write* to his friend the Rev. Dr. J. Taylor, saying that he had had a paralytic stroke, and requesting him to bring Dr. Heberden, as he thought that a speedy application of stimulants might do much, and asking "if a vomit, vigorous and rough, would not rouse the organs of speech to action"; and he sent to his neighbour, Dr. Brocklesby.

As he had been taking opium freely, in doses of even *three grains*, he naturally inquired whether that might not have had something to do with his "dreadful distress", as he termed his illness. Writing to Mrs. Thrale two days after his attack, he observed that, when he woke up as above described, he was alarmed, and prayed God that, however he might affect his body, he would spare his understanding. This prayer, that he "might try the integrity of his faculties", was made in Latin verse. "The lines," he wrote, "were not very good. I made them easily, and concluded myself to be unimpaired in my faculties." "Soon after, I perceived that I had suffered a paralytic stroke, and that my speech was taken away from me. I had no pain, and so little dejection, in this dreadful state, that I wondered at my own apathy, and considered that perhaps *death itself*, when it should come, would excite less horror than seems now to attend it.[§] In order to rouse the vocal organs, I took two drams. *Wine has been celebrated for the production of eloquence.*[‖] I put myself into violent motion, and I think repeated it; but all was vain. I then went to bed; and, strange as it may seem, I think slept. When I saw light, it was time to contrive what I should do. Though God stopped my speech, *he left my hand.* I enjoyed a mercy which was not granted to my dear friend Lawrence, who now perhaps overlooks me as I am writing, and rejoices that I have what he wanted. . . . . I then wrote a card to Mr. Allen, that I might have a discreet friend at hand, to act as occasion should require. In *penning this note, I had some difficulty: my hand, I know not how or why*, MADE WRONG LETTERS." In a subsequent letter, he could say "no", but could scarcely say "yes". On the following day (the 18th), he wrote that he was "not at all helpless", and wanted no particular assistance; and prayed that speech might be restored to him.

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[*] It is worthy of notice, that the year previous to that in which Goethe wrote his own case—viz., in 1794—Dr. Falconer, in his Observations on Palsy, in the *Memoirs of the Medical Society of London* (see vol. ii, p. 211), wrote as follows: "It is proper to remark, that paralytic persons frequently retain their own ideas tolerably clear, when they are unable to recollect the words which are proper to express them; hence they are apt to mistake the names of objects, and to substitute wrong words while their own ideas are perfectly consistent."

[†] When studying as a youth at Leipzig, he was much with the physician and botanist Ludwig, whose boarders were almost all students of medicine, and where the names of Haller, Linnæus, and Buffon were always pronounced with deep veneration, and where "he became acquainted with the vocabulary of sciences which engaged their attention". Later on, he studied Boerhaave's works; and still later on, at Strasburg, he lived much with medical students, and attended Spielmann's course of chemistry and Lobstein's of anatomy. Speaking of students of medicine, he at the time observed, "they are the only students who are eagerly occupied with their science, even after the hours of study. This zeal arises from the very nature of their labours, which, at once simple and complicated, are objects of sense, and, nevertheless, are of the most elevated nature", etc. It will be remembered that Virchow wrote on Goethe as a naturalist; and that Lewes, in his *Life and Works of Goethe*, has a chapter on the poet as a man of science", who well deserved this name, when we consider the nature of his *Treatise on the Metamorphoses of Plants*, and remember the facts that he first showed that all parts of a plant were modifications of the flower; that he discovered the intermaxillary bone in 1784, and wrote on comparative anatomy, and showed that all parts of a skeleton are modifications of a vertebra. Helmholtz and Owen accord to Goethe high testimony for his prescience in science, and for his philosophical principles and fundamental conceptions, on which so much was subsequently founded; and his name is associated with that of Meckel and Geoffroy Saint-Hilaire in connection with the study of development and the general laws of organisation.

[‡] If any reader do not know the following few lines, he will find them in *Johnson's Life of Dr. Garth*, and I hope not be sorry to see them quoted: "I believe every man has found in physicians great liberality and dignity of sentiment, very prompt effusions of beneficence, and willingness to exert a lucrative art where there is no hope of lucre."

[*] Who attended George III in his severe illness in 1788-89.

[†] Johnson was so irritable naturally, that not only did he pare his nails to the quick, but scraped the joints of his fingers with a penknife till they seemed quite red and raw. His impetuosity was often shown in his illnesses, as when he would be bled even against the good sense of his physicians; and he even scarified his own legs with a lancet and scissors secreted in his bed, from which he lost much blood. On one occasion, when he was being scarified for anasarca by Mr. Cruikshank, he exclaimed, "Deeper, deeper; I will abide the consequence. You are afraid of your reputation, but that is nothing to me".

[‡] It seems that Dr. Lawrence's paralysed hand became greatly œdematous—a condition which is, of course, well known frequently to exist in paralysed limbs, for which Johnson suggested the use of electricity, no doubt in accordance with the rules of treatment of the time. (Parry, etc.)

[§] Dr. Johnson had a great terror of death, as is shown by many passages in his writings.

[‖] *In vino veritas* is, no doubt, a true adage, and it need not be said that many a forensic speech has owed its force and power of compelling acquiescence to the stimulus of alcohol. Mental excitement, also, which may take away all power of speech, may, on the other hand, not only intensify powers of expression, but even restore lost speech. Thus examples exist of fright bringing back this faculty; and I may quote a case *ad rem* from Southey's *Commonplace Book*, in which speech which had been lost for four years was restored owing to a fright. I may also quote the fact of defective speech in idiots becoming more fluent during acute disease. (From English edition of Griesinger, see p. 369.)

On July 3rd, he wrote that he could "now speak; but the nerves are weak, and I cannot continue discourse long". He had then recently been to the club where Lord Palmerston was proposed as a member and rejected; and he had leave, as he said, from his physicians, to wash the cantharides from his head.

In spite of much depression, partly arising from the death of the Rev. Dr. Wheeler, his "learned friend, the man with whom he most delighted to converse", and of his friend and companion, the cultivated but blind Mrs. Williams, he very quickly rallied from the seizure and its effects. Subsequently, he had gout, which also he had had previously, the first time being ten years before—an affection which was represented to him by Dr. Mudge as being "an antagonist of the palsy", and was therefore *welcome* to him; and was troubled with sarcocele, for which he was attended by Mr. Pott and Mr. Cruikshank; and afterwards by violent spasmodic asthma and dropsy. Throughout all this, he nevertheless, as his faithful biographer Boswell observed, "gave many evidences of the continuance of those wondrous powers of mind which raised him so high in the intellectual world". During the year following, Dr. Johnson died "by a quiet and silent expiration",[*] but had no return of the cerebral seizure.[†]

The above case of Dr. Johnson appears to me to be one of importance. How far the opium was concerned in leading to the morbid condition of the brain which existed, and what that exact condition was, are questions of interest. That he had had a seizure during sleep, which left him with his mind entire, but with impaired powers of speech and *inability to write those letters and words* which he desired, is obvious. It does not seem that he had had any biting of the tongue, or any hemiplegia as regards the limbs; and his mental powers were evidently untouched. But he certainly had what is termed "agraphia", and probably aphasia, judging from the description of the imperfect speech which he gives. I may here observe that the question of the influence of the opium in Johnson's case brings to my mind the cases of temporary aphasia by the use of opium and other remedies, apart from any tangible structural lesion and consequent paralytic symptom, which I alluded to in some observations in the *Lancet* for August 22nd, 1868, p. 252.[‡]

I will now refer to another interesting and still more decisive instance of aphasia (though not associated with paralysis), recorded some years before this affection was duly realised, by one who was not a clinical observer. The case was that of Spalding, an eminent German scholar, recorded by himself, and quoted from the *Psychological Magazine* by Dr. Millengen in his work on the *Passions*. It appears that his mind had for some time been overtaxed, when, on the occasion of his writing a receipt for some money, "as soon as he had written the first few words, he found himself incapable of proceeding further. He strove all he could, and strained his attention to the uttermost, but to no purpose. He knew the characters he continued to make were not those he wished to write, but could not discover where the fault lay. He then desisted, and, partly by broken words and syllables, and partly by gestures, made the person who waited for the receipt understand that he should leave him. For about half an hour, a tumultuary disorder reigned in his senses, so that he was incapable of remarking anything very particular, except that one series of ideas of a trifling nature, and confusedly intermixed, forced themselves involuntarily on the mind. At the same time, his external senses continued perfect, and he saw and knew everything around him. His speech, however, failed in the same manner as his power of writing, and he perceived that *he spoke other words than those he intended*. In less than an hour, he recovered himself from his confusion, and felt nothing but a slight headache. On examining the receipt on which the aberration first betrayed itself, he found that, instead of the words 'fifty dollars', he had written 'fifty dollars through the salvation of Bra——'; the last word being left unfinished, and without his having the least recollection of what it was intended to be."

I will add to the above instances of aphasia in men of note, the details of which have been recorded without reference to any theory, etc., that of Dean Swift. He was well known to have been very deaf, as he said he "could hear with neither ear, except it be a woman with a treble, and a man with a counter-tenor". He had a cerebral affection, and, in connection with it, loss of power of the limbs; but this was on the *left* side of the body, for he records, "My left hand is very weak, and trembles; but my right side has not been touched." His biographer relates that "sometimes he would try, evidently with pain, *to find words;* but, not being able, he would fetch a sigh and remain silent." Later on, he had giddiness, with outbursts of passion, as he observes, "vertiginosus, inops, surdus, male gratus amicis". He was himself aware of his own tendencies as regards health, and was wont, pointing to a decaying tree, to say he was like it; he should die "first at the top"—a saying quoted by Byron, referring to himself. He would often attempt to speak his mind, but could not recollect words by which to express his meaning. He, however, never "talked nonsense or said a foolish thing". For some time before death, he remained perfectly silent. When his body was examined after death, the skull showed signs of chronic disease, and much water was found in the brain.[*] In the bust or cast taken after death, as well as one taken during life, were indications of paralysis of the right side of the face.[†]

I before observed that it was not my intention to adduce instances at present of unnoticed aphasia, or rather of aphasia whose import was not considered, from professional sources, many of which have been described with great fidelity to nature, though without any clear appreciation of the value of the aphasia; but I cannot refrain, in passing, from referring to two examples of the kind which are before me at the present time, and with them I will close this communication.

The first is a case related by Casper in vol. iv of his *Handbook of Forensic Medicine* (New Sydenham Society's translation, p. 31). The case was that of a girl aged 12, who had been struck on the breast and back, and also "seized by the throat"; and it was immediately found that she had *lost her speech*. Fourteen days after the accident, the marks of the bruises which had existed had all vanished, and the child was quite well; but her voice was found to consist of "inarticulate sounds, perfectly unintelligible; and, when asked, it was only with difficulty that what she wished to say could be puzzled out". The child's state remained unchanged fifteen days later; "she could not name one single consonant, and nothing but vowel-sounds were heard". When made to read aloud, nothing was heard "but a perfectly unintelligible clatter of vowels". Four weeks subsequently, the child had perfectly recovered, and could speak "with fluency and distinctness". The improvement took place gradually.

The second is a case related by Dr. Copeman in his *Collections of Cases of Apoplexy*, 1845 (see p. 189). It was that of a gentleman about seventy years of age, who, whilst dressing, was attacked by vertigo and confusion of thought. He had some pain in the right temple, and was bled and purged. He was slightly relieved, but shortly afterwards lost "the power of expressing himself". His memory failed, and he was scarcely able to stand alone. After being cupped, he had a convulsive start, and became faint. On the next day, he was unable to express himself intelligibly; and on the day after that, whilst he appeared clearly to know what he wanted, he made frequent attempts to speak; but it was impossible to understand a word he said. "It seemed to me," says Dr. Copeman, "that he might be talking Hindostanee or some Indian language that he had been accustomed to in former days; but his lady, who had also lived in India, could not at all understand him." Three or four days afterwards, it is reported that "he could not recollect the name of any thing or person; but, as he regained his general health, he regained his power of language." The first indication of this improvement was his asking for some water in Latin.* He could not then recollect the English name of it. His eyesight, particularly in the right eye, was imperfect, as if the retina were partially paralysed. The whole muscular system was weak, but no evidence existed of positive paralysis of limbs. He eventually quite recovered.

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[*] After death, Dr. Johnson's body was examined, but the head was not opened.

[†] In passing, I would note an interesting fact—viz., that on one occasion he obtained "sudden and unexpected relief" by voiding twenty pints of urine in the day, and that he took the vinegar of squills, as he found the powdered squills "hurt his stomach" so much that he could not take them. The ammoniacum did him no good. During his last illness, he had the benefit of *consilia medica*, in answer to written inquiries, from Dr. Gillespie, Sir Alexander Dick, Drs. Allen, Hope, and Monro of Edinburgh, whilst under the care of Drs. Heberden and Brocklesby.

[‡] I there recorded a case showing aphasia as resulting from the use of opium. In the number of the same paper for November 28th of the same year (see p. 714), and also in vol. iii of the *St. George's Hospital Reports*, p. 163, Dr. Blake has recorded the same condition as resulting from the use of stramonium; and Dr. Nicholls of Chelmsford has seen aphasia arising from the use of stramonium.

Dr. Wm. Ogle has described in the same volume of *Hospital Reports*, page 167, cases of loss of speech from the bites of venomous snakes, though in many cases it would seem that this arose from want of muscular power in the muscles engaged in articulation.

It is placed on record that the soldiers of Anthony, in their return from the Parthian war, were attacked by loss of memory after eating some poisonous plants in their march.

[*] An interesting case of aphasia in connection with hydrocephalus is recorded by Dr. Baillie in the second volume of his works (p. 17). The patient was a man aged 56, who had hemiplegia on the right side; and Dr. Baillie says "by this attack he lost the recollection of the words of his own language, except a very few, which he pronounced with the greatest distinctness, and without exhibiting that thickness in pronunciation which is so common in paralytic patients. The words 'Yes, yes', 'No, no, Mr. Reed, yesterday', were employed on all occasions, and with a great variety of tone, to express pleasure and displeasure, joy and sorrow; to explain the circumstances of his disorder, and to give directions about what he wanted. He did not seem to be aware that these words were not the proper ones to express his meaning, for he often betrayed impatience when he was not understood", etc. "He could pronounce other words distinctly, but he hardly ever did so, except to repeat some words first uttered in his presence." His understanding was complete. Later on, the paralysed limbs became greatly contracted, and later on, some contraction of the opposite leg. The only morbid appearances about the brain found after death were distension of the lateral ventricles by six ounces of fluid, and enlargement of the left vertebral artery, whose walls were thickened.

[†] See "Some Particulars respecting Swift and Stella", by W. R. Wilde, in the *Dublin Quarterly Journal of Medical Science*, vol. iii, 1847, p. 384, and vol. iv, p. 1. Swift expressed a whimsical desire that when he died he should be buried in any *dry* place of the cathedral.

Dr. Copeman, among others which I might cite, also quotes a case from Portal, who, after recovering speech and consciousness, which he had lost by apoplexy with left hemiplegia, was unable to pronounce his words intelligibly. "Out of twenty words which he preserved, there were eighteen not understood, and the other two were misapplied." It was thought he was mad; but Portal observed, "I saw it was less a loss of reason than of the power of expressing himself".

ON THE INDUCTION OF PREMATURE LABOUR.†

By JOSEPH GRIFFITHS SWAYNE, M.D.,
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THE induction of premature labour is an operation of unfrequent occurrence in ordinary practice. A limited experience of it is, therefore, worthy of record; and on this account I propose to give my own, which is comprised in the following twenty cases. I shall endeavour to give the details of each case as briefly as possible.

CASE I.—In 1848, in consultation with Mr. Neild, I induced premature labour in the eighth month. The patient, Mrs. Y., I had previously delivered by craniotomy, on account of deformed pelvis. The membranes were punctured and ergot given. The breech presented. The child was still-born, apparently from pressure on the cord. The labour occupied nearly three days. The mother did well.

CASE II.—In 1849, I saw, with my father, Mrs. T., a patient whom he had twice delivered by craniotomy, owing to considerable pelvic deformity. Labour was induced at the beginning of the eighth month by completely detaching the membranes all round the os uteri by the finger. Labour terminated rather more than two days afterwards. On the third day after delivery, symptoms of peritonitis supervened. These were treated by bleeding, calomel, and opium. She made a good recovery, and the child did well.

CASE III.—In 1857, I brought on labour at the beginning of the eighth month, in a poor woman, whom I delivered thirteen months before by craniotomy, and in whom I made out, by measurement, that the conjugate diameter of the pelvis was not more than two inches. Four sponge-tents were introduced, and the process occupied four days. The feet presented. The child was still-born, but the mother did well.

CASE IV.—In 1862, I was called in by Mr. Crossman to see Mrs. G., a primipara very near her full time, but reduced to an extreme degree of emaciation by constant and urgent vomiting, which no remedy would check. I punctured the membranes with a sound, and injected half an ounce of ethereal tincture of ergot into the rectum. Labour came on quickly, and she gave birth to a living child in about twelve hours. There was some *post partum* hæmorrhage. The vomiting ceased, and she was able to take a fair amount of food and stimulus; but, about four days after delivery, she had a violent attack of diarrhœa, and, although this was checked, she became so prostrate, that she sank two days afterwards, just six days after delivery.

CASE V.—In 1863, in consultation with Mr. Corbould, I brought on premature labour at the third month, in Mrs. H., a patient who had twice been delivered by craniotomy. The os uteri was dilated by sponge-tents and afterwards by Dr. Barnes's elastic bags. Unfortunately, the os uteri was very high, and the process of dilatation occupied more than a week. The shoulder presented, and, before the child could be turned, it was expelled, doubled up on itself, and still-born. Symptoms of ruptured uterus supervened, and the patient died two days after delivery. A *post mortem* examination showed that the uterus was ruptured between the os uteri externum and internum. The pelvis was not very much deformed, but of male type, the conjugate being longer than the transverse diameter of the brim.

CASE VI.—In 1863, I brought on premature labour in a patient (Mrs. D.) whom I had delivered in her first labour by craniotomy. As the pelvic deformity was not great, the operation was performed at the end of the eighth month. It was commenced by sponge tents and terminated by Dr. Barnes's dilators. Ergot was also given at last. The process occupied five days. Both mother and child did well.

CASE VII.—In 1865, two years after the last operation, the same patient was again delivered by the same means, exactly a month before full term. Three sponge-tents were used, but no other dilators. The operation lasted rather more than three days. Both mother and child did well.

CASE VIII.—In March 1867, I saw with Mr. Burleigh Mrs. T., a primipara, eight months pregnant. She had suffered some time from the most obstinate vomiting, which had defied all the usual remedies. When I saw her, there was much epigastric tenderness; the fluid ejected resembled coffee-grounds, and there was great prostration. I could distinctly feel a pediculated tumour, of the size of a hen's egg, which was attached to the fundus uteri, and must have made pressure on the stomach. Although there had been no pains, the os uteri was dilated to the size of a shilling, and I could feel an elbow presenting. I dilated the os with one of Dr. Barnes's bags, and then effected turning by Dr. Braxton Hicks's bimanual method. The child, though vigorous when born, died four days afterwards. The mother made a good recovery.

CASE IX.—In May 1867, Dr. Brittan consulted me respecting Mrs. C., a primipara, in her eighth month of pregnancy, who was suffering from general anasarca and considerable albuminuria, threatening puerperal convulsions. I began to dilate the os by a tangle-tent, and finished the process with a large sponge-tent. I also gave one drachm of liquid extract of ergot in three doses. Labour came on speedily, and was completed within thirty-six hours. Both mother and child did well.

CASE X.—Mr. Sleeman consulted me, in July 1867, about Mrs. W., a lady whom he had delivered in her first confinement by craniotomy. The conjugate diameter of the pelvis was apparently about three inches. Dilatation was effected by sponge-tents (three of which were used); and one ounce of liquid extract of ergot was given in small, repeated doses. The membranes were also punctured. Labour came on; but, as the head was arrested at the brim, Mr. Sleeman applied the forceps and soon effected delivery. The whole process was completed in less than forty-eight hours. Both mother and child did well. The latter was apparently an eight months' child.

CASE XI.—In March 1869, I induced premature labour in a patient, Mrs. N., who had been twice delivered by craniotomy, on account of pelvic deformity. The os was dilated by tangle and sponge-tents. After the third tent, the membranes ruptured and some pains came on. These, however, although ergot was given, passed off after some hours. I then left her for a few days, and again introduced some tents, but with no better result. I then desisted for the present from further efforts, until, about sixteen days after the introduction of the first tent, labour came on rapidly and the breech of a child presented. This was speedily expelled, and proved to be a fœtus of about eight months. Both it and the mother did well.

CASE XII.—In 1869, Mrs. P., with deformed pelvis, had been twice delivered by craniotomy. As the deformity was not extreme, I determined to bring on labour at the end of the eighth month. I introduced tents of three different sizes on three successive days; when I removed the last, I punctured the membranes, and gave ergot. This brought on effectual pains, and she was delivered a few hours afterwards. The labour was difficult, and there was much pressure on the head. The child tried once or twice to breathe, but could not be recovered by artificial respiration. The mother did well.

CASE XIII.—In 1870, Mr. Wine consulted me about a patient of his, Mrs. T., who had deformed pelvis, and had been twice delivered by craniotomy. Sponge-tents were introduced on the two following days, and then I punctured the membranes. The process occupied rather more than four days. Mr. Wine found it necessary at last to use the forceps. The child, barely a seven months' fœtus, died soon after birth. The mother made a good recovery.

CASE XIV.—In 1871, Mr. Davies requested me to see Mrs. M., a multipara, who was three and a half months pregnant. She was suffering from most obstinate vomiting, which had resisted all remedies; and was very prostrate, having scarcely kept down any food for some days. As her state was very critical, we determined to induce abortion. I introduced a small tangle-tent and a larger one on the next day. A few hours after the second was removed, labour came on with considerable hæmorrhage, and a fœtus of between three and four months was expelled, together with a part of the placenta. On the next day, I removed the rest of the placenta with the ovum-forceps. The vomiting soon abated and the patient made a good recovery.

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* Those cases are very interesting in which the memory for words in certain languages only is retained. Thus Abercrombie relates the case of an Englishman who, from a cerebral affection, had almost forgotten his own language, and talked in a mixed language of French, Italian, Spanish, German, and Turkish. Having subsequently been burnt about the head by accident, he recovered his recollection of English, to a great extent, but not entirely; thus, when taken to see a small house, he remarked, "It is very neat, but it is a very little child".

In the *Reports* of the Westminster Hospital Medical Society for November 10th, 1838 (see *London Medical Gazette*, vol. xxiii, p. 312), a case is mentioned by Dr. Bird, of a Prussian who had lived many years in England, and who suddenly lost all memory of the English language, and spoke only German. He died in twenty-four hours.

† Read at the Bath and Bristol Branch Meeting, March 5th, 1874.

Case XV.—In 1871, in consultation with Mr. Sleeman, I again induced premature labour in Mrs. W. (Case 10). As the last labour was rather difficult and the forceps was required, we agreed to perform the operation just before the end of the seventh month. Three sponge-tents were used on three following days. After the third was withdrawn, the os was well dilated and the membrane ruptured. There was, however, much constitutional irritation, denoted by severe rigors, pain in the back, abdominal tenderness, and a pulse of 136. For this, thirty grains of chloral hydrate and turpentine stupes were employed with good effect. Labour-pains set in, and she gave birth to a stillborn infant. She ultimately did well.

Case XVI.—In 1872, I again induced premature labour in a case (No. 11) who had been thus successfully delivered on account of considerable deformity. The dilatation of the os was effected in three days, four tents being used. As the head was arrested at the brim, I endeavoured to deliver by turning, but without success, and at last had to perform craniotomy, because unfavourable symptoms had set in. The child was very large for eight months. The mother did well.

Case XVII.—In 1873, I saw, with Dr. Marshall, Mrs. P., a patient of his, who had miscarried five or six times previously, the placenta having been each time diseased and unusually large. She was now about seven months pregnant, and, from various symptoms, there was reason to believe the child was either dead or very feeble. The uterus was very large, and pressed much on the stomach and liver. The urine contained a good deal of bile, and occasionally albumen. Her health was so much impaired by the continuance of pregnancy, that we determined to induce premature labour. This was accordingly effected by sponge-tents. Three were used, and the labour was completed in less than three days. Ergot also was given. The child was swollen and œdematous, and its abdomen was distended with ascites. There was slight pulsation of the cord, but no respiration. The placenta was retained from hour-glass contraction and adhesion, and had to be removed by introducing the hand. It was enormously large, and weighed 2¾ lbs. It appeared to have undergone fatty degeneration. The patient was very prostrate after delivery. The pulse had risen to 140, and there was constant nausea. The urine contained much bile and albumen. She continued in the same prostrate condition, and died on the third day after delivery.

Case XVIII.—In 1873, at the end of the seventh month, I induced premature labour, in consultation with Mr. Corbould, in a case (Mrs. T., No. 13), who had been previously so delivered. Two sponge-tents were used. On the morning of the third day, I punctured the membranes, and, in the evening of the same day, the child was expelled feet first. It cried loudly when born, but died about half an hour after birth. The mother did well.

Case XIX.—In 1873, I was consulted by a medical man about his wife, a multipara, who, at a previous confinement, nearly lost her life from puerperal convulsions. On this occasion, she was about eight months pregnant. The urine was loaded with albumen, and there was considerable anasarca. Two tents were used on two successive days, and the membranes were then punctured. Delivery soon came on. The child seemed feeble, and died six hours after delivery. The albuminuria soon disappeared, and the mother made a good recovery.

Case XX.—I again (in 1873) brought on premature labour in Mrs. N., a multipara (Cases 11 and 16), who had twice been so delivered. Two sponge-tents were used on two successive days. On the morning of the third, the membranes ruptured. She at this time experienced severe rigors; was very sick, and the pulse was up to 120. In the evening, the child was born. It was very large for seven months. It was still-born, apparently from pressure on the cord, which was round the neck. The mother recovered well.

The statistics of all these cases are given in the annexed table. From this it appears that, of the twenty cases in which the operation was performed, seventeen were multiparæ and three primiparæ. In one case (20), the operation was performed three times in the same individual, and in three (7, 15, 18) twice. With regard to the morbid condition which rendered the operation necessary, we find that, in the greater number of cases, viz., fourteen out of twenty, it was deformity of the pelvis. The subjects of this deformity were all of them multiparæ. In the remaining six cases, the operation was rendered necessary in three by obstinate vomiting, and in three by albuminuria. Of the first three, two were primiparæ. Of the last three, two were multiparæ. In one of these, the albuminuria was complicated with jaundice.

Twenty Cases of Induction of Premature Labour.

No.	Date.	Description.	Date of Operation.	Cause of Operation.	Means Employed.	Presentation.	Duration of Labour.	Result to Mother.	Result to Child.
1	1848	Multipara	8th month	Deformed pelvis	Ergot; puncture of membranes	Breech	Nearly 3 days.	Recovered	Died
2	1849	Ditto	Ditto	Ditto	Separation of membranes round os uteri	Head	Ditto	Recovered	Recovered
3	1857	Ditto	Ditto	Ditto	Sponge-tents	Feet	4 days	Recovered	Died
4	1862	Primipara	9th month	Obstinate vomiting	Ergot; puncture of membranes	Head	12 hours	Died	Recovered
5	1863	Multipara	8th month	Deformed pelvis	Sponge-tents; Dr. Barnes's elastic bags	Arm	10 days	Died	Died
6	1863	Ditto	Ditto	Ditto	Sponge-tents; Barnes's bags; ergot	Head	5 days	Recovered	Recovered
7	1865	Ditto (No. 6)	Ditto	Ditto	Sponge-tents	Head	3 days	Recovered	Recovered
8	1867	Primipara	Ditto	Urgent vomiting	Barnes' bags; turning	Arm	6 hours	Recovered	D. (after 4 days)
9	1867	Ditto	Ditto	Albuminuria	Tangle- and sponge-tents; ergot	Head	36 hours	Recovered	Recovered
10	1867	Multipara	Ditto	Deformed pelvis	Sponge-tents; ergot; puncture of membranes; forceps	Head	2 days	Recovered	Recovered
11	1869	Ditto	Ditto	Ditto	Tangle- and sponge-tents	Breech	16 days	Recovered	Recovered
12	1869	Ditto	Ditto	Ditto	Sponge-tents; ergot; puncture of membranes	Head	3 days	Recovered	Died
13	1870	Ditto	7th month	Ditto	Sponge-tents; punc. of membranes: forceps	Head	4 days	Recovered	Died
14	1871	Ditto	4th month	Urgent vomiting	Tangle-tents	Head	2 days	Recovered	Died
15	1871	Ditto (No. 10)	7th month	Deformed pelvis	Sponge-tents	Head	4 days	Recovered	Died
16	1872	Ditto (No. 11)	8th month	Ditto	Sponge-tents; craniotomy	Head	3 days	Recovered	Died
17	1873	Ditto	Ditto	Albuminuria; jaundice	Sponge-tents; ergot	Head	2½ days	Died	Died
18	1873	Ditto (No. 13)	Ditto	Deformed pelvis	Sponge-tents; puncture of membranes	Head	3 days	Recovered	Died
19	1873	Ditto	Ditto	Albuminuria	Sponge-tents; puncture of membranes	Head	2½ days	Recovered	D. (after 6 hrs)
20	1873	Do. (Nos. 11 & 16)	Ditto	Deformed pelvis	Sponge-tents	Head	2½ days	Recovered	Died

With respect to the period when the operation was performed, we find that, in by far the greater number, viz., sixteen out of twenty, it was during the eighth month of pregnancy. Of the remaining four, in one it was during the ninth month, in two during the seventh, and in one during the fourth month. In these last three, when it was necessary to operate before the fœtus was viable, great deformity was the cause in the first two, and obstinate vomiting in the last.

The great utility of the operation as an alternative for craniotomy in cases of deformed pelvis has been so universally recognised, that I need say no more on that head: there has, however, not been quite so general a consent as to its utility in cases of obstinate vomiting attending pregnancy and in albuminuria causing anasarca and threatening convulsions. Of course, in cases of obstinate vomiting, the operation is only to be performed as a last resource, when all remedies have failed, and the patient is in imminent danger of starvation; and this remark especially applies when the infant has not yet arrived at the age of viability. I have performed the operation three times for this cause. In two (Nos. 8 and 14), it was attended with the happiest results, the patients being apparently snatched from the jaws of death. In another (No. 4), it was unfortunately too late to save life. In all three, the patients were all but moribund.

I remember once being called to a lady, nearly six months pregnant, suffering from obstinate vomiting, whose condition appeared so desperate, that I told her husband that, if I did not find her better on the next day, I should at once bring on labour. I was again summoned to her on that night, because labour-pains had set in; and she was very shortly delivered of twins. Her condition at once improved; all vomiting ceased, she speedily regained flesh and strength, and from that time made a rapid recovery. Nature thus anticipated me, and pointed out, in the most convincing manner, the proper course to be adopted in such cases.

In the three cases of albuminuria in which I had recourse to premature labour, the affection was of a very obstinate character, and attended with peculiar risk. Thus, in the first (No. 9), there was much general anasarca and commencing effusion into the chest. These symptoms rapidly disappeared after delivery, and the child also was saved. The second case (No. 17), however, did not end so favourably. This patient had repeatedly miscarried two or three months before the full term. In each instance, the fœtus had gradually become feeble, and its movements had ceased before it was expelled, its death apparently having been caused by a most extraordinary and abnormal development of the placenta. When I induced labour, the health of the mother had suffered very much, and her condition had become very critical. She had long suffered from obstinate vomiting, jaundice was commencing, and the urine not only contained albumen, but a considerable quantity of bile. The operation was resorted to quite as much to save her life as that of the child. Unfortunately, it was not performed sufficiently early to save either.

Dr. Barnes, in his *Lectures on Obstetric Operations*, makes some very judicious remarks upon this head. He says: "My experience leads me to conclude that, in cases of urgent disease, there is more frequent occasion to regret having delayed the operation too long than having had recourse to it too soon. When, through obstinate vomiting, for example, nutrition has long been arrested, the starved tissues craving for supplies and falling into disintegration, feed the blood with degraded and noxious materials; the system feeds upon itself and poisons itself, the poisoned blood irritates the nervous centres, and these centres, wrought to a state of extreme morbid irritability, respond to the slightest peripheral, uterine, or emotional excitement. All nervous energy is thus diverted from its natural destination, and exhausted in destructive morbid action. Irritative fever ensues, the pulse rises to 140 or more, no organ in the body is capable of discharging its functions, for the pabulum of life is cut off at its very source. At this point, labour, whether it occur spontaneously, as it often does, or be induced artificially, comes too late. The tissues are altered, the powers are impaired beyond recovery, and death soon follows delivery."

In the third case (No. 19), in which albuminuria was the cause of the operation, the urine, when boiled, was nearly solid with albumen, and there was considerable general anasarca. The patient, during a previous labour, being in the same condition, had nearly lost her life from puerperal convulsions. On this occasion, the operation was attended with the best result as regards the mother; but the child, probably poisoned by the maternal blood, only survived six hours.

I have never had occasion to deliver prematurely in order to save the life of the child, when, without any apparent reason, the death of the fœtus has regularly taken place a few weeks before the full term. Such cases, however, have occurred to others, and the propriety of the operation has been recognised ever since the time of Denman.

The next point for consideration is the mode of performing the operation. In my two first cases before the year 1850, labour was induced by the old-fashioned methods, viz., by puncturing the membranes and giving ergot in No. 1, and by detaching the membranes around the os in No. 2. After the time mentioned, having read Sir J. Simpson's memoirs on the subject, I always commenced the operation by dilating the os uteri mechanically before puncturing the membrane—a method which is much superior, because it more exactly imitates the natural process of labour. To puncture the membranes before there is any dilatation of the os is to put the cart before the horse, and to invert the process of labour; and, therefore, it is no wonder that such a proceeding, especially when combined with the use of ergot, is more apt to endanger the life of the child from compression of the cord.

Accordingly, in all my other cases (with the exception of No. 4), labour was invariably commenced by dilating the os uteri. In No. 4, the condition of the mother was so critical, that very prompt delivery was necessary, without reference to the child, and there was already some dilatation of the os uteri.

The instruments ordinarily employed for the purpose of dilating the os uteri are tents of sea-tangle or compressed sponge, and the elastic India-rubber bags recommended by Dr. Barnes. My own experience leads me to prefer the sponge-tents, and I now almost invariably employ them, and insert them in the following manner. The patient being in the ordinary obstetric position, the fore and middle fingers of the left hand, well oiled, are to be passed up to the os uteri externum, which is generally sufficiently open to admit the point of one, and sometimes even of both, fingers. A small-sized sponge-tent, about the size, for instance, of an ordinary radish, is to be mounted on a proper stilette, made for the purpose, and passed along the groove between the fore and middle fingers of the left hand, until its point is inserted into the os uteri. The tent is then to be pushed on until a very little of it, not more, perhaps, than a quarter of an inch, projects into the vagina beyond the os uteri. If the os be so high that it cannot well be reached by the finger, the tent may be inserted through a full-sized tube speculum. If also it be very little open, a tangle-tent may be found more convenient to begin with. Care should be taken to push the tent up sufficiently far, as it should be remembered that, two months or so before delivery, there is often a considerable interval between the os uteri externum and internum; otherwise the tent may not pass through the os internum. After the tent is introduced, a piece of soft silk handkerchief may be passed up as a plug to keep it *in situ*. On the day following, this tent should be removed and a large one inserted, and on the next day a tent of the largest size. Generally two, or at most three, tents are required to complete the full dilatation. At this time, probably labour-pains will set in regularly, and the membranes will rupture. Should this not be the case, the membranes may be punctured, and the most convenient instrument for this purpose I have found to be a gum elastic male catheter, of which the end has been cut off, so that the stilette can be protruded at pleasure. Should the pains still be weak or ineffectual, ergot may be given.

Before it was the custom to impregnate sponge-tents with carbolic acid, they used to become very offensive if left in the vagina more than ten or twelve hours, and there was some risk of septicæmia in consequence. I, therefore, never was accustomed to leave a tent *in situ* more than twelve hours. In this time, however, the tent will not dilate to its full extent. I now always leave each tent twenty-four hours *in situ*, and I do not find that there is any risk of septicæmia when carbolised tents are used.

On the whole, I prefer carbolised sponge-tents very much to the elastic bags, because they effect the process of dilatation more steadily, continuously, and gradually, and therefore imitate more exactly the natural process of dilatation, which frequently occupies several days from its first commencement. As a general rule, it is not desirable to dilate the os too rapidly, especially when the time for that operation falls considerably short of the full term, for then there is a proportionally greater thickness of the os uteri to overcome.

Unless there be some special circumstances present which render prompt delivery necessary, it is never advisable to induce premature labour with that rapidity which Dr. Barnes enumerates as one of the advantages of the elastic bags, when he remarks, "that it is just as feasible to make an appointment at any distance from home to carry out at one sitting the induction of labour as it is to cut for the stone". This is, no doubt, one great advantage which we can derive from the use of the elastic bags; but still it is one of which we should do well not to avail ourselves, except under very exceptional circumstances. The chief objection, I think, to the elastic bags, is the difficulty of introducing them. Unless the os uteri is tolerably low, and open enough just to admit the tips of two fingers, it will be much safer to commence the dilatation with a tent of tangle or sponge.

The opposite extreme, of occupying too much time in the process of dilatation, is also to be avoided. If the process occupy more than three or four days, the continual pressure of a foreign body in the os uteri may cause considerable irritation, or even inflammation of the part, which may produce ulceration and softening, and thus give rise to very untoward results, especially if the os be subjected to any undue strain afterwards during the labour. In one of my cases (No. 5), I believe that this cause led to a rupture of the neck of the uterus, and consequently to a fatal result. In this case the child lay transversely; the os was very high, very little open, and very difficult to reach; and I think it very probable that most of the dilators were not passed far enough through the os uteri internum to act very effectually. In this way ten days were consumed in the dilatation, and when the labour came on the child was expelled very rapidly in a doubled condition, and thus a rupture of the neck of the uterus was occasioned, which, although it did not pass through the peritoneum, was sufficient to cause death. There was, no doubt, an unfortunate combination of circumstances in this case; yet it will always be well, I think, if the os be not well dilated in three or four days, to desist from further efforts by these means, and to adopt some other method of inducing labour; or even to give up all attempts for the present, and recommence at the end of a week or ten days. I have sometimes known the labour come on quite unexpectedly, and apparently spontaneously, many days after all efforts to induce it had been abandoned. This happened in one of my own (No. 11) cases.

There is another very effectual way of bringing on premature labour, of which I have had no experience—I mean the intrauterine douche. I have never tried it, because I have been, on the whole, well satisfied with the sponge-tents, and I have been deterred also by the alarming and even fatal results which have occasionally followed its use even in the most skilful hands.

The time occupied by a premature labour artificially induced is very variable. In my own cases, the shortest time was six hours (No. 8), and the longest sixteen days (No. 11). In the first, the woman was in such a critical condition, owing to constant vomiting, that it was necessary to deliver as quickly as possible; and here I experienced the very great utility of Dr. Barnes's elastic bags in causing rapid dilatation. In the second, after trying in vain for several days to induce labour by tangle- and sponge-tents, I desisted from further efforts. About ten days afterwards, labour came almost as if spontaneously, and terminated very favourably for both mother and child. On the whole, the average time occupied was about three days.

I now come to by far the most important part of these statistics—viz., the result of the operation to both mother and child. And here I must confess that my own statistics do not show in so favourable a light as those which have been recorded by many others. This result, however, is more apparent than real. Out of my total of 20 cases, three mothers died after the operation. In two of these the condition was so desperate, that to have declined performing the operation would have been to have abandoned them to certain death. As it turned out, however, the shock of the operation was the last straw which broke the camel's back. Notwithstanding this, I should again, in a similar case, be disposed to run the same risk rather than to resign the patient to her fate without making an effort in her behalf. The only case in which death was clearly the result of the operation was No. 5. This arose from an untoward combination of circumstances, which I have already explained.

In my own cases, the infant mortality also is rather great; as many as 11 infants out of 20 were still-born, and of those who were born alive two died, one six hours and the other four days afterwards. Although these results are not so unfavourable as some that are recorded, as, for instance, in the 46 cases mentioned by Dr. Merriman, jun., of which only 16 children lived, yet they are not so good as the averages of a great number of different practitioners, which give on the whole a mortality of rather less than half the children. Part of the infant mortality in induced premature labour is due, no doubt, to the fact, that malpresentations are more frequent than at the full term. Thus in 243 premature cases related by Dr. Arneth, there was one malpresentation in five. In my twenty cases, there were four malpresentations (two of the breech, one of the feet, and one of the arm); and this exactly corresponds with Dr. Arneth's average.

On the whole, as regards the maternal mortality, the induction of premature labour has not, in my hands, shown a more favourable result than the operation for which it is an alternative—viz., craniotomy, which in my own practice has proved fatal in two cases only out of thirty-four. In three of my twenty cases, the induction of labour gave rise to very severe and alarming symptoms resulting from shock, such as excessive rigors, pain in the back, with abdominal tenderness, and a pulse of 130; so that I cannot altogether endorse the statement of Dr. Churchill, when he says that "there is unquestionably *some risk* incurred by the mother, but not more than by an accidental premature labour".

Although the saving of infant life effected by this operation is an advantage which far outweighs any of the disadvantages just mentioned, yet the accoucheur should, I think, always bear in mind that it is a proceeding attended with some risk, and involving a great amount of responsibility—such an amount, indeed, that he ought always, if possible, to share it with another practitioner.

ON HERB-POISONING AT THE CAPE OF GOOD HOPE.*

By GEORGE GREY, M.D., F.G.S.Edin.,
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THE Bushmen tribes (Bosjesmen) of Southern Africa are pretty generally known to be naturally cunning, treacherous, and vindictive. As regards *physique*, authorities in ethnological science have placed them in all but the lowest grade in the human scale, and their mental capacity is, no doubt, only on a par with their physical configuration. Nevertheless, these people manifest certain inherent powers of perception, and they may safely be credited with a tolerably accurate knowledge as to right and wrong. We must, therefore, not view them, as some have been disposed to do, in the light of beings wholly devoid of a moral sense—ill-regulated and distorted though it undoubtedly is.

Consequently the Bushman of Southern Africa must, like his superiors in the human family, be held responsible for his deeds, whether good or bad; though, after taking into consideration his very depraved habits and miserable mode of living, his criminal propensities, and his disregard of all means calculated to raise him from his degraded condition, we feel compelled to relegate him, in a social sense, to the class commonly denominated "evil-doers".

But, in the Kaffir race, of which people we have a considerable number scattered throughout the district of Cradock, comprising principally individuals belonging to the Amaxosa, Tambookie, and Basuto tribes, we find no trace of resemblance to the genuine aborigines of Southern Africa. The Kaffir, whose original habitat is believed to be North-East Africa, is almost as distinct and different in his physical and mental development from the Bushman as he is from the European; and, if placed in comparison with the Koranna and Damara Hottentots, the Griquas, Bosjesmen, and other unpromising people peculiar to this region, we have to pronounce him in every respect a superior variety of the genus *Homo*.

But, notwithstanding, the Kaffir is an utter savage, and it is with much difficulty he can be brought to a proper appreciation of European laws and customs; a considerable time must elapse before the march of civilisation here, progressive as it is, can render him a trustworthy dependent to the colonists; and, therefore, we have good ground for assuming that, until such can take place, our barbarous coloured races are not likely to refrain from resorting, as occasion may suit them, to the crime of secret poisoning. We must not, however, forget that it is a stated axiom in the ethics and laws of savage races, that though criminal acts, or such as relate to death by poisoning, and, indeed, all serious offences, when perpetrated against any members of their own tribe or nation, are followed by condign punishment on the offenders, such crimes are really considered as meritorious deeds when members of foreign, and, therefore, to them ill-favoured, communities are the victims.

As bearing upon the foregoing remarks, I would now observe that, during the last eight years, I have been required to investigate, in my official capacity as district surgeon of this division, eleven cases of reported poisoning in and around Cradock. In many of these, whole families have been affected, and generally in each family one, and sometimes more, deaths have occurred. The above may be looked upon as a considerable number for a comparatively small and scattered population, which includes, in town and country, according to the last census, only 12,228 inhabitants, the whole district embracing an area of 1,806,692 acres (2,986 square miles). We must also take into account that, perhaps, not more than one-half of the above crimes (at least among the coloured people), when committed in isolated places, are ever brought to light.

It is not my intention to enter at present into any detailed statement on the cases above referred to, except on one which recently occurred at Middleburg, and which involved very serious and important issues. I would only remark, with respect to the others, that in many of them I found that strychnia, or else the seeds of *strychnos nux vomica*, had been the drug resorted to; and in other cases the tuberous roots of certain iridaceous plants had, as far as could be ascertained, been used. At the scattered farm-houses hereabouts, a small supply of strychnia is usually kept for the destruction of leopards, wolves, jackals, wild dogs, and other troublesome carnivora; this poison is, therefore, through carelessness, often of easy access to persons who may be criminally disposed.

In fatal cases of poisoning by strychnia, that alkaloid is not now considered a very difficult substance to detect; but, in this colony, which possesses a large and widely extended flora, an arrival at a correct determination by analysis as to the nature and properties of any indigenous plants used in attempts to poison cannot fail, in the absence of other good proof, to be a very complicated and troublesome procedure. Therefore, when a case of such a character rests otherwise upon very doubtful evidence, who can be surprised that a satisfactory conclusion is not frequently attained?

On March 25th last year, an express reached Cradock from Mr. C. W. Andrews, resident magistrate of Middleburg—a town sixty miles north of this—with a request that I would attend there at once, for the purpose of rendering professional aid to the survivors in a case of poisoning which had just occurred. The whole household of Dr. Coward, district surgeon for Middleburg (except a Bushman maid-servant), had been seized on the previous day, after partaking of some soup, with alarming vomiting, followed by a painful feeling of constriction across the chest, and other abnormal symptoms. Mr. J. O. Reeve, a merchant of Graaff Reinet, at the time on a visit to Dr. Coward, had died within eighteen hours of receipt of the poison, and, on the same day (24th), little hope was entertained of the recovery of the others. On my arrival at Middleburg, I found the whole family overwhelmed with grief; for, on the morning of the 25th, a fine little boy of Dr. Coward's, eight years of age, had also succumbed to the effects of the poison. In all, eight persons had been affected by it. Fortunately, by that time, serious symptoms in the survivors had considerably abated, and, although all were suffering from severe shock and after-effects, restoration was being gradually established. I made a *post mortem* examination on the body of Mr. Reeve, who had been a well-formed and muscular man of about 30 years. The body presented, externally, a natural appearance. There was no *rigor mortis*—a characteristic feature in cases of death from *strychnos*, *brehmia*, *hyænanche*, *melianthus* (the three last named are indigenous to the colony), and other substances belonging to the class "neurotic poisons". The lungs and heart were healthy, but the pulmonary arteries and their branches were engorged with a remarkably dark, venous blood. The right ventricle of the heart was filled with a similar very dark blood. The muscular structure of the heart was very flaccid. The stomach, where I had thought to have discovered indications of inflammatory action, was quite empty, and exhibited no signs of inflammation. The continued vomiting, which had lasted for several hours after taking the soup, had evidently caused a rejection of the poison, and death had resulted from secondary causes. Other organs were natural in appearance, except that there was venous congestion throughout, and especially in the blood-vessels of the brain.

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* For this interesting MS. we are indebted to the Editor of *Nature*.

There can be no doubt that death resulted from effects produced by the soup taken on March 23rd, and, from the symptoms as observed till death in the two fatal cases, viz., intense vomiting, a constant feeling of oppression over the chest, a feeble and intermitting action of the heart, a tendency to coma for some hours before death, and from *post mortem* appearances, I am of opinion that the poison used belonged to the class termed by Orfila "narcotico-irritant".

I think that the effects (secondary) of the poison were probably partial paralysis of the coats of blood-vessels, muscles, and nerves, belonging to the organs of respiration, involving considerably the cardiac and coronary plexuses. This would result in more or less loss of motor power, and may account (in part at least) for the flaccid condition of the walls of the heart, for the laboured respiration, and consequently imperfect oxidation of the blood.

The circumstances connected with the administration of the poison may be thus briefly recounted.

On March 20th, Dr. Coward returned to Middelburg after an absence of two or three weeks. He had been joined *en route* by Mr. Reeve at Graaff Reinet. In the meantime, the Bushgirl had been employed as a servant at the house in Middelburg. Taking advantage of her master's absence, she had grossly misconducted herself, having, among other misdeeds, been in the habit of admitting a Kaffir admirer to the house, and, to disguise the fact, stated that the house was haunted. This being detected, she was very properly reprimanded. She then expressed to Miss Coward her intention of being revenged. On the evening of the 22nd, after eating some curry, some of the family party experienced a feeling of nausea, but this did not excite much notice. On the next day, soup was served up at dinner hour, and, before many spoonfuls had been taken, Mr. Reeve first, and afterwards every person in the house, except the suspected individual, was attacked with the alarming symptoms to which I have referred. Dr. Coward, though suffering severely himself, acted most promptly and energetically, and without doubt six out of the eight persons attacked owe their lives to his exertions. Dr. Coward suggested the possibility of the girl having got access to tartar emetic in his surgery. After charring with strong sulphuric acid to destroy all organic matter, I applied to scrapings from the stomach, and to part of the soup, the proper tests for detection of antimony, but with a negative result.

The belief at present is, that certain poisonous herbs (recent) had been resorted to, and that these had been furnished to the Bushgirl by her ally the Kaffir. An extractive of the material could readily be added to any article of diet, and this would appear to have been done, first in a small quantity to the curry on March 22nd, and again in much larger quantity on March 23rd.

I will now, if space permit, add a few words on some of the native plants and their properties, which may have been used as agents in the case in question, concluding by a short statement of experiments on their action compared with some on that of the poisoned soup, as affecting animals.

By order of the resident magistrate, the tent of the Kaffir prisoner was searched, and a great number of dried roots and stems of native plants, besides seeds (some not indigenous), powdered wood, charcoal, wings and legs of the red locust, hair of the Klipspringer (*Oreotragus saltatrix*), and other substances used by Kaffir impostors and witch doctors, were found in a large bag and removed. Owing to the dry and fragmentary state of these articles, it was almost impossible to identify many of them; but most proved, on testing, to be comparatively innocuous, and at present opinion is against the probability of any of them having been used prejudicially in the case in question. Among the seeds in the parcel, I found about half a dozen belonging to *Strychnos nux vomica*—a quantity which would suffice to kill at least twenty persons; but the absence of symptoms characteristic of poisoning by nux vomica dismisses the admission of these seeds into the case. *Strychnos nux vomica* is an Indian plant, but we have one allied to it in *Hyænanche globosa* of the western districts, and also in *Brehmia spinosa* of Kaffirland and Natal. The latter plant is also a native of Madagascar. Among other recognisable plant-specimens were *Pilogyne ecklonii*, termed in vernacular *Davidjes wortel*, a cucurbitaceous shrub, emetic, cathartic, and diuretic; *Garullum bipinnatum* (compositæ) called "slangwortel", Anglicè, "snake-root", from its reputed efficacy in snake-bites; pieces of the stems of the *Gomphocarpus*, one of the varieties of the "Melk Bosjes" peculiar to the Cape, an asclepiad. The white, milk-like juice of this plant is very acrid and corrosive; the *Cadaba juncea*, or "zwart-storm" of the colonists (Capparidaceæ), non-poisonous; the seeds of *Plantago major*, "plaintain" (H. Bolus), comparatively harmless; and the resinous secretion from the urinary bladder of the *Hyrax capensis*, the "klipdas" or "rock-rabbit", used only as a stimulant and antispasmodic.

The following indigenous plants, mostly virulent poisons, have come under observation, in the course of the inquiry, as possible agents in the case, and are, I think, worthy of record.

Lessertia annularis, "T'Nenta" of the Karroo, produces cerebro-spinal paralysis and death in sheep and goats, like the *Gastrolobium*, the evil-renowned "poison-pea" of Australia.

Melianthus major (Melianthеæ), called locally *Truijtje roer mij niet*, Angl., "Gertrude, disturb me not", is a large, shrubby, disagreeably scented plant, occurring in patches in various parts of the Eastern Province. It has a widely creeping root. The leaves are alternate, smooth, pinnate, glauceous beneath; the flowers brown-red, an inch long, capsule four-celled, seeds two in each cell, black and shining. A decoction of the leaves is used as an antiseptic for sore-throat and various forms of ulcers. The bark of the root and stem are very poisonous. I will refer further on to some of its properties. There are four known species of this plant—*Melianthus major; M. comosus; M. minor; M. dregeana.*

Toxicophlæa (Apocyneæ), the "gift-boom", or "poison-tree" of the colonists, is a small tree or large shrub, with dark, dotted, and virulently poisonous bark. The flowers are sweetly scented, like jessamine, in dense, axillary, many-flowered fascicles. The only species at present known is, I believe, the *T. Thunbergii.* It produces the notorious arrow-poison of the Bosjesmen. Thunberg states "the aborigines use a decoction of the bark, reduced to the consistence of jelly, for poisoning their arrows". The symptoms in a case of accidental poisoning at Grahamstown by a decoction of the bark were rigors without convulsions, loss of muscular power, and death in a very few minutes. *Toxicophlæa* grows in the south-eastern parts of the colony and at Natal. Some knowledge of the nature and properties of this curious South African plant may be, to some extent, interesting in an ethnological point of view; for, now that the ever-advancing footsteps of the white man are exercising so dispersing an effect on the old strongholds, as well as on the old-established customs of the aborigines, the use of the deadly little missiles of the Bushman is gradually lessening, and before the lapse of many years may probably have to be numbered among the things of the past. Dr. Hooker will, I feel confident, be glad to give further information relating to this plant to any inquirers interested. I understand some specimens of it are thriving under his fostering care at the Royal Botanic Gardens, Kew.

Ornithogalum altissimum (Asphodeleæ), termed locally "Magerman", is a large bulbous plant, bearing a tall solitary scape, which speedily withers. The flowers are white and whitish-yellow; many species. The bulb is used occasionally as a diuretic and sedative. I introduce a note on this plant, because some experienced persons have stated that its active principle is in a great degree poisonous. But this is certainly not confirmed by my own experience. Professor Mac Owan of Somerset and Mr. H. Bolus of Graaff Reinet (two able observers) also believe it to be almost inert.

But, perhaps, the most important of the genera of our suspected herbs now deserves notice. I refer to *Moræa* (Thunberg), Homeria (Sweet), called in Cape vernacular "wilde tulp". It belongs to the family *Iridæa*. The root is a corm or tuberous bulb, covered with a fibrous, reticulated, hardened coat; shaft erect, smooth; branches 2-3-flowered (Pappe). The leaves are mostly few and narrow. The flowers yellow, white, orange, or parti-coloured pedicillate, rising from crowded or subsolitary terminal sheaths (Harvey, who states that the species are numerous). This plant is to be found in various parts of the colony, and the species vary apparently in different localities. They grow plentifully throughout the Karroo, and appear to thrive in arid plains and sterile, rocky spots. We may frequently notice their pretty vari-coloured flowers where little else of vegetative growth is to be seen—in dolorous-looking places, almost suggestive to the fancy of Ebenezer Elliott's

> "Grim region in a world of woe,
> Where toil-sown wheat and paupers will not grow."

The variety best known for its poisonous properties is the *M. collina*, native in the Western Province, and is the only species yet described growing there.* The late Dr. Pappe states that, "judging from the rapidity with which death ensued in recent cases when some of these bulbs had been eaten by mistake, they must be of a very poisonous kind". The only deaths resulting from these plants (except in a considerable number of cases in cattle) hitherto recorded have been caused by eating accidentally the bulbous parts of the *M. collina;* and a comparison of the symptoms in these cases with those in the fatal cases at Middelburg gives in some respects a slightly different result; for example, in the several persons in whom *M. collina* had been the fatal agent, acute gastritis and also enteritis occurred, notwithstanding that repeated vomiting had cleared the stomach, as in the persons affected at Middelburg. Consequently, in the former instances, the mucous membrane of the stomach and small intestines was found to be highly vascular and inflamed. Such was absent in the cases at Middelburg, though other *post mortem* appearances corresponded. To the present time, the only species of *Moræa* belonging to the Eastern Province which has been described is *M. polyanthos* (Thunberg) the "tulp blommetje". It is very probable that the effects of the "tulp" of the eastern districts differ from the western in degree only, and that the one is equally, or nearly equally, poisonous with the other. Portions of dry husks and stems of about a dozen specimens of *Moræa* were found in a room of Dr. Coward's house, previously occupied by the suspected Bushgirl, and these were forwarded to me for further report. The fleshy parts of the rootstocks being absent would appear in itself to afford extra presumptive proof against the girl; for, doubtless, the active part of the herbs had been disposed of for some nefarious purpose.

Soon after the occurrence, I prepared, as opportunity offered, concentrated decoctions and extracts from portions of all substances procurable to which I have referred, and applied to these various chemical tests and reagents, comparing the results of these with others applied to extractives prepared from the poisoned soup. These I have duly recorded, and may give a detailed statement upon them on a future occasion.

Mr. Gibb, Government analyst at Cape Town, to whom I referred for a report on the nature of the poisoned soup, states that he finds it to contain "a peculiar vegetable principle similar to veratria, and highly poisonous"; and that "he believes it to be derived from a species of *Moræa*, or 'tulp'". The latter is, I venture to think, the prevailing opinion, and the impression is, that one or more of the eastern district species formed the deadly element in the case at Middelburg.

It may be sufficient that I conclude this paper by giving a brief summary of the effects on animals after administration of (1) the soup, and (2) preparations made from some of the more important of the plant-substances to which I have adverted. On March 29th, I gave six ounces of the soup to a full-grown dog. It was taken voluntarily and with avidity. Rigors set in within three or four minutes, and soon afterwards intense vomiting, which continued at short intervals for about twenty minutes, and then ceased. There were no convulsions. The dog recovered, but refused to touch the soup again, although kept to a room without other food or water for six days. On April 3rd, a teaspoonful was administered to a kitten; rigors occurred, but no vomiting. It died within three hours. At the same time, a teaspoonful was given to a pup a month old. *Very slight* vomiting, with rigors, commenced in a few minutes, and continued for nearly two hours, the animal dying within six hours. No convulsions or rigor mortis either in this case or that of the kitten.

April 23rd. I concentrated a portion of the soup, so as to form an extract, and gave a few drops to a kitten. This animal was first of all convulsed, then partly paralysed, and died within eight minutes.

April 25th. A teaspoonful of decoctum melianthi ("Truijtje roer mij niet") was given to a kitten. Frothing at the mouth and shivering followed, but nothing more serious for twenty-four hours. About a dessert spoonful was then administered. The animal was then attacked with convulsive movements, staggered gait, and general loss of muscular control. It died in less than two minutes. Considerable rigor mortis ensued. A *post mortem* examination revealed considerable venous congestion throughout, and an inflamed condition of both pericardium and endocardium. The poison had evidently acted also through the brain and spinal cord, thus causing tetanic rigidity. The bark of *Melianthus* is, therefore, no doubt, a powerful neurotic poison, but it could not have been the material used in the poisonings at Middelburg.

A decoction of some rootstocks of one species of *Moræa* (boiled for four hours) was given to a dog twice within six hours, in doses of a teaspoonful. Nothing very serious supervened on the first dose, but the second proved fatal in a little more than two hours; symptoms being vomiting, rigors, heaving of chest and flanks, and speedy collapse. The mucous membrane of the stomach was slightly congested, and a general venous engorgement existed, affecting especially the right side of the heart and corresponding pulmonary blood-vessels. Otherwise nothing abnormal could be distinguished.

On July 3rd, Dr. Coward forwarded me a small parcel containing corms belonging to another Eastern Province variety of *Moræa*. Experiments with these specimens afforded results nearly identical with those above mentioned, the very poisonous properties of this order of plants being thereby confirmed.

Alas for the glorious uncertainty of the law! The Solicitor-General has decided that the evidence in the case is nearly wholly circumstantial, and that both prisoners must be discharged on their own recognisances. But murder by poisoning is nearly always a secret crime, and I should have thought that the evidence in this case was sufficiently strong to warrant the bringing in of a true bill. In this country, where colonists are so largely dependent upon the coloured population for servants' work, it is not too much to say that whole families of innocent persons run a risk at all times of being poisoned for no other reason than that the malice of certain ill-grained and very troublesome "coloured brethren" may be indulged.

ABSTRACT OF LECTURES ON THE SURGICAL TREATMENT OF ANEURISM.

Delivered at the Royal College of Surgeons of England.

By T. HOLMES, F.R.C.S., Professor of Pathology and Surgery.

LECTURE VI.—*Popliteal Aneurism (concluded).—Tibial Aneurism.*

THE treatment of popliteal aneurism by genuflexion was first discussed. Mr. Ernest Hart's claim to the introduction of this method into practice was vindicated, though some hints of it are discoverable in previous French writers, and a successful case, under the treatment of Maunoir of Geneva, had actually occurred before Mr. Hart's first case, but had not been published. The actual results of this treatment, so far as it has been hitherto pursued, are not easy to discover. Certain it is, however, that a large proportion of them have been cured, and that of the rest only a few have been affected by the treatment, either one way or the other, but that, in very rare cases, rupture of the sac, or gangrene, has followed. The successful cases are usually remarkable for the absence of all pain or danger. It is a mistake to insist too much on extreme or forced flexion. Instances were quoted from the practice of the lecturer himself, and other surgeons, of the cure of the disease by voluntary, unforced flexion, involving really no distress or danger of any kind, and it was suggested that a more merciful employment of the method would probably be followed by an increase in the ratio of success. Genuflexion, however, is not likely to succeed when the sac is thin or deficient, nor is it indicated when the tumour is growing towards the knee-joint. The indications which augur the success of flexion were thus summarised: "The small size and recent origin of the tumour, the integrity and stoutness of the sac, the presence of a certain amount of coagulum in the sac, the efficacy of flexion in stopping, or at least diminishing the pulsation, and the fact that the position causes little distress, perhaps even relieves the pain in the tumour." When flexion does not either succeed at once, or produce sensible improvement in the symptoms, it is not well to persist long in its use. At the same time, in some cases, it may produce slow coagulation, as in a diabetic patient of M. Verneuil.

The mode of action of genuflexion was then discussed. All agree that it acts mainly by retarding the circulation; but there can be little doubt that the displacement of clot must also bear a part in the process, that is, that the shape of the tumour being altered, some of the lining coagula become displaced, partly or entirely, from its surface, and thus become centres of renewed coagulation, or may even be displaced into and obstruct the distal orifice of the artery, so that genuflexion may be considered as resembling both compression and manipulation. This view of the action of flexion was supported by the details of some published cases.

The less usual methods of treatment were then referred. to Acupressure (or the temporary ligature, which is nearly the same thing) was disapproved, as involving nearly the same danger as ordinary deligation, while holding out a much less certain prospect of cure. Galvano-puncture, coagulating injections, and manipulation have succeeded in isolated cases, but are only justifiable in very exceptional circumstances; and, finally, the new proposal of introducing horsehair into the sac was illustrated by a recent preparation from a patient of Mr. Bryant. Dr. Levis's case of subclavian aneurism, treated in this manner, was also referred to. The attempt was in both cases probably justifiable, since the disease was otherwise incurable; but the proposal is not one which holds out any strong prospect of practical utility, particularly in popliteal aneurism. Some cases were then spoken of (and illustrated by preparations from the Hunterian and other Museums) in which, after the consolidation of a popliteal aneurism, gangrene has taken place, and amputation become necessary. In many of these cases the diagnosis has been erroneous, and in all probability necessarily so, as there were no symptoms on which a correct diagnosis could be founded, but the treatment was correct where gangrene was present. In ordinary rupture of an aneurism in the ham, a cure has often been obtained by ligature, and sometimes by compression. Probably the former is the safer course. One or two cases of arterio-venous popliteal aneurism are on record, but the observations made above, on a similar affection in the thigh, render further discussion of this subject superfluous.

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* It may be seen at the Botanic Gardens, Kew.

The conclusions, then, as to the treatment of popliteal aneurism, to which our present experience points, are as follows.

1. Rapidly growing aneurisms, with a thin or imperfect sac, are best treated by immediate ligature, especially when caused by recent violence; and the success of compression is doubtful in aneurisms growing towards the knee-joint, and in all others which advance rapidly.

2. The Hunterian ligature has been about twice as successful modern hospital practice in this country, as the results of the accepted statistics show it to have been.

3. The results of the compression treatment in the same hospitals have given as yet about the same average results as those of the ligature, but these results might be much improved by a more careful employment of the method.

4. Too long persistence in compression is to be deprecated, as being likely to interfere with the success of the ligature.

5. Flexion is often successful when used so as not to distress the patient, and is worthy of a trial in all cases in which it stops or materially checks the pulsation, but should not be long persisted in when it is not at once beneficial.

6. We have no evidence showing the utility of or the need for the less usual forms of treatment, such as galvanism, coagulating injections, manipulation, temporary ligature, or the introduction of foreign bodies.

Tibial aneurisms were then spoken of. These are usually traumatic; but a list was given comprising eight aneurisms of the posterior, and four aneurisms of the anterior tibial, which seem to have been spontaneous. These were all the cases which had fallen under the lecturer's own notice, though doubtless others are on record. These histories show that spontaneous aneurisms in this region (as in the forearm, spoken of in a previous course of lectures) are very commonly associated with disease of the heart; and that therefore any active treatment was to be deprecated, especially as it was not usually necessary. Compression had often succeeded, and will probably, with care, succeed in almost all curable cases, though many instances of the success of ligature are on record.

In traumatic aneurism, if possible, the formation of the sac should be waited for, and the case then treated like a spontaneous aneurism. Otherwise the sac must be laid open and both ends tied; but this is a very serious and difficult operation, and is liable to be followed by gangrene, especially when either tibial artery is wounded near to its origin from the popliteal.

This completed the course; and the lecturer terminated by thanking his audience for the interest which they had shown in so protracted a series of lectures.

CASE OF A POLYPUS BECOMING SPHACELATED WHILE WITHIN THE CAVITY OF THE UTERUS: REMOVAL: RECOVERY.*

By T. SYMPSON, F.R.C.S., Surgeon to the Lincoln County Hospital, President of the Midland Branch.

THE following case, for notes of which I am indebted to our house-surgeon, W. F. Lill, M.B., presents features of great interest, from the fact of the extreme rarity of the occurrence of sphacelation of a polypus while retained within the cavity of the uterus, from the narrow escape of the patient from septicæmia, and from the deceptive character of the symptoms, which in some respects bore a resemblance to those indicative of cancer. The case also illustrates the danger incidental to the use of a glass syringe for the purpose of washing out the vagina.

E. C., aged 37, domestic servant, unmarried, was admitted into the Lincoln County Hospital on June 1st, 1874, suffering from menorrhagia. She had an anxious expression of countenance; her complexion was sallow, and her pulse quick. The vaginal discharge had a faint and offensive odour. For two years she had had backache and pain in the left side; and about a fortnight before admission she suffered from a severe attack of uterine hæmorrhage, which had not yet wholly ceased. On examination, a hard swelling of the size of a doubled fist was felt above the pubes; and, on a vaginal examination, a tumour was detectable within the uterus, the os being sufficiently patulous to admit the tip of the forefinger. The uterine sound passed 3½ inches. She was ordered to take fifteen minims of liquid extract of ergot in camphor julep every four hours.

It was my intention to dilate the os uteri by means of laminaria tents; but, after placing the patient under the influence of chloroform on the 7th, I found the os sufficiently dilated to admit the easy passage of ovum-forceps, wherewith I grasped and brought away a portion of tumour half as large as an orange; and, by a second introduction of the forceps, I succeeded in removing the remaining portion. The tumour was dark in colour and very friable in consistence. The odour it emitted was extremely fœtid. The vagina was ordered to be frequently washed out with Condy's fluid and water.

June 15th. The patient was improving. The os was contracted and normal in size. The sound passed 2½ inches. A piece of glass, which had formed part of the extremity of a glass syringe, was found lodged in the upper part of the vagina, but was easily removed by the finger.

June 22nd. She had recovered without a bad symptom, and was discharged cured.

CLINICAL MEMORANDA.

MAMMARY ABSCESS IN INFANTS.

[SINCE the publication of Dr. Stephen's case in the JOURNAL of July 25th, we have received several communications on the subject, abstracts of which we subjoin.]

Dr. BASSETT (Birmingham) says that swelling of the mammary glands shortly after birth is of comparatively common occurrence, and it is believed by nurses in that district to be confined to female children; but whether this is absolutely true he cannot state. His attention has been now and then called to the subject, when the swelling was associated with inflammation and threatened suppuration, or sometimes as a matter of curiosity on the part of the nurse. Usually a diachylon plaster spread on soft linen has been advised, and nothing further has been heard on the subject; but now and then the inflammation has run so high that a bread poultice has been required. Suppuration is rare, but it does occur sometimes. The swelling may be presumed to be due to the presence of a secretion of abortive milk.

Dr. S. S. DYER (Ringwood) writes as follows. Some years ago, I could have recorded many similar cases; but of late they have fortunately been much more rare in my experience. The reason of this happy unfrequency has resulted from the very angry remonstrances I had for some years with ignorant and prejudiced country midwives and nurses. In the many instances of mammary abscess in female infants which fell under my observation, it was invariably admitted that the nurse had been breaking the unfortunate baby's nipple-strings by a rough process of suction and fingering peculiar to the country. The storm I raised against this came to a climax, when a poor little boy had abscess of the breast from the efforts of the midwife that the child might ultimately have "a good nipple", as she was pleased to term it. I feel persuaded that, if Dr. Stephen inquire into his case, he will find that similar rough usage was adopted.

Dr. JAMES EDMUNDS (London) is surprised to see that mammary abscess in the newly born infant is considered a very rare occurrence. He believes that he has seen at least a dozen such cases, and certainly, in many districts of London, tumefaction and threatened abscess of the infant's breasts are so frequent that nurses pride themselves upon their methods of treatment in preventing their gathering; often, also, they have to be restrained from doing mischief by the assiduity of their frictions and applications.

Mr. PHILIP E. HILL (Crickhowell) contributes the following case. On October 31st, 1873, Mrs. B. was delivered of a healthy child; and on November 19th, I was requested to see the infant, which had been suffering for some little time from an abscess in the mammary gland, produced, the nurse in attendance told me, by the retention of milk in the child's breast. I, however, never having seen or heard of a similar case, attributed the condition of the gland to be due to some disturbance of the system, and accordingly prescribed a few alterative powders, and ordered linseed-meal and bread-crumbs as a local application. On my calling the next day, I was informed that the abscess had discharged freely of itself during the night; and, upon removing the poultice, I could see that a considerable quantity of greenish coloured pus had been discharged into it. After continuing the poultices for a day or two, the discharge ceased, when I applied zinc ointment, and the wound healed rapidly in the usual way.

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* Communicated to the Annual Meeting of the Midland Branch.

Dr. J. B. Spence (Earlswood) relates a case of double mammary abscess in a baby twelve days old, which he saw in August, 1871, while assistant to Mr. Wheeler of Chelmsford. The mother had progressed favourably from the time of her confinement, and the baby had only been unwell for one night previously to the swelling of the breasts. When he saw the child (August 22nd), there was no constitutional disturbance whatever; but, on examining the chest, two fluctuating tumours were visible, lying obliquely in the position of the mamma. They were distinctly lobulated. Linseed-meal poultices were directed to be applied. One abscess burst on the 24th, discharging about half a wineglassful of healthy looking pus; the other abscess broke on the 16th. Recovery was complete on the 31st. The child did not appear to suffer any pain or uneasiness.

Dr. J. C. Weddell (Birmingham) writes that it is a known fact that generally in the breasts of new-born children, during the first few weeks of life, there is a secretion of thin milk in males as well as in females. If this fluid be prevented in any way from exuding, we may, as a natural consequence, look for inflammation, to be followed in all probability by suppuration. He has seen two cases, in both of which instances his attention was attracted to the state of affairs by the nurse in charge; and abscesses were prevented from forming solely by the assiduous application of belladonna ointment during the day, and warm poultices at night. In the case of one, a girl, there was also a distinct vaginal discharge, which lasted two days, but did not return.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

TWO CASES OF AMENORRHŒA.

(Under the care of Dr. Greenhalgh.)

[Reported by Dr. Hope.]

Case I. *Catamenial Retention from Atresia of the Vagina, due to the Presence of an Imperforate Hymen.*—A. B., aged 17, single, was admitted under the care of Dr. Greenhalgh on May 9th, 1874. She stated that she was the only girl in the family, and that she had usually enjoyed good health. About two months previously, she had experienced for three weeks severe pain at the pit of the stomach, frequent sickness, and an inability to retain solid food; and at the same time she had suffered from a dull aching pain in the lower part of her back and in each groin, headache, occasional feverish attacks, and a general sense of lassitude and uneasiness. For three weeks before admission, she had had pain and difficulty in micturition. Her bowels had usually been confined, and she had never been "unwell". She had latterly had some œdema about the ankles, and to a less degree about the face also. She had derived some benefit from treatment.

On admission, she complained of pain of an aching character across the lower part of her back and abdomen. She slept well, and her appetite was good; tongue clean and somewhat red; bowels confined; pain and difficulty in micturition. Her general appearance indicated perfect health: the body was well nourished; the breasts and external genitalia well developed; the pubes slightly covered with hair. The external orifice of the vagina was totally occluded by a membrane, not bulging. The abdomen was normal.

May 14th. The urine having been drawn off, a careful examination was made. With the finger in the rectum and the catheter in the bladder, an intervening membrane, which appeared to be normal, could be felt. From this, it was inferred that there was a vaginal canal, and that it was not distended with fluid. High up in the natural position of the uterus, a hard globular swelling could be felt *per rectum*, through which some slight impulse could be communicated to the finger by firm pressure with the other hand upon the hypogastrium. A small trocar was then introduced through the centre of the imperforate membrane, when twelve ounces of inodorous grumous like fluid were drawn off. The patient was put to bed immediately, and no local or constitutional disturbance followed the operation.

May 21st. It was intended to evacuate the remainder of the fluid on this day, a week after the former operation; but, symptoms of menstruation manifesting themselves, it was determined to defer all further operative measures for a few days.

May 25th. Pain still continued, and there was some abdominal tenderness. For the last three days there had been complete retention of urine, necessitating the daily use of the catheter. There was an absence of all febrile disturbance. In the mesial line of the abdomen was a hard pyriform swelling, extending to within an inch and a half of the umbilicus, resembling a distended bladder. This it proved to be, upon the introduction of the catheter, which was effected with some difficulty. In about a quarter of an hour after the bladder had been emptied, a sudden gush of most offensive catamenial fluid burst through the opening which ten days previously had been made in the imperforate membrane; and immediate relief ensued. More or less discharge subsequently continued to escape until May 28th, when, a probe having been passed through the opening, an escape of some glairy secretion occurred. Afterwards, sea-tangle tents were daily introduced until June 4th, when the forefinger could be passed with some slight difficulty into the vagina, which was found to be normal. The cervix uteri was short, and atrophic in texture. The body of the uterus was large and ill-defined.

June 8th. All discharge had ceased. Being quite well, the patient left the hospital.

Case II. *Amenorrhœa, with Absence of Uterus, but with all the Symptoms of Ovarian Irritation.*—S. S., aged 27, single, was admitted into St. Bartholomew's Hospital on June 1st, 1874. She stated that, when she was between seventeen and eighteen years of age, she had first begun to experience pain and uneasiness in the lower part of the abdomen and back, like that occurring at "poorly time"; and that she then had also some tenderness and swelling about the breasts. These symptoms had, however, been unattended by any evidence of menstrual discharge. They had since recurred almost invariably about every three weeks; but of late there had been a material increase in their duration and severity, so that she had at times been in the greatest agony. The pain on these occasions was chiefly localised to the right groin, whence it spread down the thigh to the knee of the same side; and the patient expressed it as feeling "as if something were gathering". Her general health in the intervals had been good, and she had been able to follow her usual occupation.

On admission, she had just recovered from her last attack, which was very severe; and she was for a time comparatively easy. Her appetite was poor, but in other respects she appeared to be very well. She was an intelligent-looking person, and her manner was bright and cheerful.

Physical Examination.—Her breasts were fairly developed; the pubes was covered with hair. The external genitalia were apparently normal, excepting the labia minora, which were somewhat rudimentary. The meatus urinarius and the lacunæ on each side were much dilated. The vaginal orifice was completely occluded by a membrane. With the catheter in the bladder and the finger in the rectum, no trace of intervening uterus could be detected; from which it was conjectured that no such organ existed.

A few days later, she was carefully examined whilst fully under the influence of chloroform. The right hand was now passed into the rectum, when a round movable and elastic body—probably the ovary—was detected in the right recto-vaginal fossa; but no trace of uterus could be discovered.

Remarks by Dr. Hope.—The above most instructive cases go hand in hand, and serve to illustrate the important fact, that amenorrhœa may depend either upon the causes which altogether prevent the performance of the menstrual function, or on such as merely interfere with the discharge of the menstrual fluid. In both the instances before us, there were the ordinary indications which usually precede the menstrual flux; both patients in their outward form presented all the indications of womanhood; and, comparing case with case, there was apparently little or nothing to show (until after thorough examination) that the amenorrhœa did not originate in one and the same cause, namely, the condition of atresia. The chief interest lay in the question of diagnosis, and to the presence or absence of the uterus or vagina, and whether the catamenial fluid which had already been secreted was not retained by the partial or complete closure of some part of the vaginal track.

The diagnosis in such cases is not difficult; for, if a silver catheter be introduced into the bladder, and the finger or hand into the rectum, the condition of parts may be pretty accurately determined.

The absence of any solid substance between the point of the finger and the catheter shows the absence of the uterus; or, at all events, that it exists in only a rudimentary form. On the other hand, the presence of a swelling, more or less bulging, between the bladder and the rectum, leads to the conviction that the uterus exists, and is probably—as in the case before us—distended with fluid, and that there is an impediment to its exit near the os, or in some portion of the vaginal track.

Much might be said, did space permit, about the mode of operating in such a case, and the risks incurred by a too sudden and incautious evacuation of the retained menstrual fluid.

The case, however, of S. S. seems to be of more interest in a physiological aspect, and would serve to prove that, though the discharge of blood, which is usual in menstruation, did not appear, yet that the ovaries may be capable of performing, more or less perfectly, their function notwithstanding the absence of the uterus; and that the pain, so acute and periodic in its character, is due to ovarian irritation. As a remarkable proof of this, I am reminded of a most interesting case which was admitted into St. George's Hospital under Dr. John Clarke, in May, 1872, and which has since been published, *in extenso*, in the *Lancet* of that year. It was that of a girl, aged 18, who was the subject of vicarious menstruation from the nose, gums, tongue, and the surface of the body. This recurred monthly, and was attended with the usual symptoms of menstruation, save an entire absence of any sanious discharge from the vagina. She had extensive heart-disease, from which see died shortly after her admission into the hospital. The vagina terminated in a short *cul-de-sac*, and the uterus was diagnosed to be absent.

The *post mortem* examination showed that, besides extensive mitral disease, the uterus was absent; and only a small nodule of fibrous tissue, at the usual site of that organ, was found within the folds of the peritoneum. The ovaries were, however, well developed, but congested; and one of them contained a recent false corpus luteum.

Another most important question arises in these cases, namely, as to the propriety of marriage; as many cases have occurred in which marriage has been recommended with a view to the establishment of the menstrual function. Dr. Greenhalgh has told me of a case, which has recently occurred in his practice, in which such advice was given by several medical men; when, upon a careful examination made by Dr. Greenhalgh, no trace of the vagina or uterus could be detected.

HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM

NERVOUS DISORDER FROM CONSTIPATION: RELIEF BY PURGATIVES.

(Under the care of Dr. Lockhart Clarke.)

A married female, aged 28, and having two children, one four years old and the other ten months, applied for relief under the following circumstances. A few months ago, she began to feel occasional headaches and giddiness, which increased so much that she was frequently afraid of falling. These symptoms were accompanied by great confusion of mind and depression of spirits, so that any little excitement would cause her to shed tears. Her friends stated that she was naturally very lively and intelligent. She said that she felt as if she could not answer correctly when she was asked a question; in fact her brain seemed, as she expressed herself, "to be in a muddle". Then her sight became affected, so that she was unable to read or do needlework; and soon it became so much impaired that she had difficulty in recognising persons whom she knew well. At the same time, every object appeared double. At first, the distance between the visible objects was small, but gradually increased until it reached nearly a yard. The optic discs were quite healthy. About the same time she complained of a continual noise in her head, like "little bursts", as she expressed herself. There was also extreme drowsiness, so that she felt it almost impossible to keep awake, even amidst loud noise. When she presented herself, she had a stupid, heavy, and sleepy appearance. She was very thin, and had been losing flesh for the last few weeks. The bowels were always obstinately constipated, and had been particularly so lately. The abdomen was full and resisting. Under the impression that she might be suffering from the effects of nursing, her medical attendant had given her large quantities of quinine and iron, which, as she thought, made her worse. She was ordered five grains of calomel and eight of compound extract of colocynth at bed-time, to be followed in the morning by an enema, consisting of an ounce and a half of castor-oil, one ounce of turpentine, and one pint of gruel, to be thrown forcibly up the bowels. The result was an enormous evacuation of fæcal matter, containing numerous and very hard scybala. A decided relief of all her symptoms very soon ensued. The enema was repeated every two days for several times, and was followed each time by still greater improvement, until, at the end of a fortnight, all that she complained of had entirely disappeared. On inquiry, three months later, she was found to continue in good health. This is certainly a very instructive case.

BIRMINGHAM GENERAL HOSPITAL.

A CASE OF CHRONIC PLEURISY IN WHICH ASPIRATION WAS PERFORMED FOUR TIMES; WITH COMMENT.

(Under the care of Dr. Russell.)

The practice of withdrawing a portion only of the fluid from the chest, when performing the operation of paracentesis, which is applicable to cases of acute pleurisy, is also of much importance in the chronic form of the disease, especially since the introduction of the aspirator. A case under my care, in the hospital, illustrates this statement. When the lung has been disabled by the protracted pressure of fluid within the pleural cavity, it becomes unable, in proportion as it is disabled, to expand as that fluid is withdrawn. By the old method of tapping, no danger was to be feared from continuing the operation beyond the limit, when the place of the fluid withdrawn could be readily supplied; in that case, either the fluid would cease to flow, or, at the worst, air would enter from without through the cannula. In using the aspirator, on the other hand, we have no means of knowing when this limit is reached, at least until a considerable degree of resistance to the outflow has been created; and, by continuing to apply the exhausting force beyond this point, a state of tension would be created within the chest, which would be imperfectly relieved by the thoracic walls, especially in middle-aged people; as, indeed, was illustrated by my patient, in whom, after repeated aspiration had occasioned the advance of the opposite lung behind the sternum, the capacity of the affected side was shown by the circometer to be but slightly diminished. This state of tension would operate especially upon the stream of blood in the large veins; would have a tendency to load them inconveniently, together with the right auricle, even to offer opposition to the blood leaving the chest; in fact, the effect of inspiration, which under ordinary circumstances is usefully employed in aiding the current through the venous sinuses, would be exaggerated and sustained, and serious disorder of the circulation would ensue, leading probably to coagulation. No such effect upon the circulation, it is true, was produced in my patient; but it is not difficult to imagine that it would have happened had not the operation of the aspirator been checked as soon as complaint was made. We may note the gradual extension of the sound lung into the diseased side of the thorax after successive aspirations. The patient, a man aged 48, of intemperate habits, looking prematurely old, and with very tortuous radial arteries, was known to have had the right side of his chest nearly filled with fluid for two months at least, probably for a considerably longer period; he had suffered from short breath for three months previously. He was admitted almost moribund from the effects of an acute aggravation of chronic Bright's disease, and was saved chiefly by the active employment of elaterium. When aspiration was first employed, the right side of the chest was completely filled with fluid, and the dulness extended for half an inch beyond the left edge of the sternum, into the opposite side. On that occasion (May 18th) forty six ounces of fluid, of a deep yellow colour, were withdrawn; of specific gravity 1015, densely albuminous, depositing only a few blood-cells and leucocytes. On the 22nd, forty ounces were withdrawn, the operation being suspended in consequence of the patient complaining of slight faintness. Two days afterwards, aspiration was repeated, the stream of fluid being carefully controlled. Just when fifty-three ounces had passed, I noticed one of the lower intercostal spaces drawn in during inspiration; a moment afterwards the patient cried out that "he could not heave his breath", and for a brief period was in a state of distress which occasioned me considerable alarm. The stop-cock of the instrument was of course turned immediately, and he soon recovered; but, for the next two days, he complained of not being able to draw a deep breath, and of consequent difficulty in "raising the phlegm", with which may be connected the fact, that it was only after this third aspiration that the opposite lung effected a decided advance across the sternum. A fourth aspiration was performed on June 7th, but only twenty-two ounces were drawn off, as the man began to complain of some pain, and the fluid had a pink tinge, depositing afterwards a beautiful pink web, floating in the liquid, which then regained its former yellow colour. The second operation produced partial clearness on percussion behind the sternum, but the fluid began again to increase, and it was only on the next occasion, as just stated, that the advance of the opposite lung was established. The process of extension proceeded; clearness on percussion extending for an inch to the right of the sternum; a total breadth of three inches being gained from the line of dulness before any fluid was withdrawn. A fortnight after the last operation, the circometer showed a diminution, on the right side of the chest, of half an inch in transverse diameter. The expectoration was not albuminous after the second tapping, but it was so after the third, and contained some albumen for the following seven days. I may just note that the patient's health underwent marked improvement after the process of withdrawing the fluid had been commenced. He had fully recovered from the general dropsy and other severe symptoms present at his admission, but amendment had been stationary. The urine, however, has remained densely albuminous.

GENERAL HOSPITAL, NOTTINGHAM.

CASE OF MALIGNANT DISEASE OF OMENTUM.

(Under the care of Dr. ROBERTSON.)

[Reported by LEWIS W. MARSHALL, M.D.]

JAS. S., aged 46, employed in large iron-works in the town, was admitted May 18th, 1874, having been seen as an out-patient by my colleague Mr. Ottley.

Three days before his admission, he was seen by me, and then had a swelling about the size of a fist, not larger, in the left hypochondrium; he had no marked cachectic appearance, but was "losing flesh rapidly".

After admission, on May 20th, he gave the following history. He had suffered from a constant pain in the left side for the previous six months, and noticed that his general health was failing. He had some discomfort after food; no nausea or vomiting until within three days since, when he was purged violently, the stools being bloody, and vomited at the same time a large quantity of "bloody matter". His bowels were habitually confined. He had had to discontinue work for a fortnight, owing to pain in the left side and lumbar region having become more severe. Five weeks ago, he noticed a swelling in the left hypochondrium, which had increased steadily in size. His family history was good, and general health also. He had lived very freely; he suffered from syphilis twenty years ago, but recollected no other illness of any moment.

When examined on this day, the loss of flesh was very noticeable, and anxious expression most marked; he could not lie flat in bed, and relieved pain by inclining the body towards the left side. The pain he described as "constant and intense", being diffused through the left hypochondrium to the lumbar region. Both legs were slightly œdematous.

On making a physical examination, in a half recumbent posture, a large swelling was found, the highest point of which was in the left hypochondrium, passing gradually away across the mesial line through epigastrium and upper part of the umbilical region until lost in the right hypochondrium. The tumour was well-defined, firm, and elastic, and extended from the ninth rib to within an inch of the ilium, the lower border passing upwards from the left inguinal region, which it just entered, crossing the mesial line immediately above the umbilicus, and onwards into the right hypochondrium. The upper border was lost beneath the ribs, but was percussed to the ninth. The whole mass moved freely with respiration. The space included within these boundaries was absolutely dull, the dulness extending through the lumbar region to the spinal column. Pulsation was felt at the upper part of the tumour, but it was evidently communicated; that in the femoral was equal on both sides. The urine showed a slight trace of albumen, was insufficient, according to his statement, and voided with pain.

June 1st. He complained of diarrhœa, which was controlled by astringents; the stools were pale, and occasionally tinged with blood. He took farinaceous food fairly, and did not complain of any increase of pain or desire to vomit. He was much more feeble, and the tumour had increased in size.

June 4th. There was more blood in the stools. The pain had increased, and the œdema of the legs was more marked.

June 11th. He was seized with pain in the abdomen at five o'clock; he passed a large quantity of blood *per anum*, and died at 8 P.M.

Necropsy, twelve hours after death.—Nothing abnormal was found in the thoracic viscera. When the abdomen was opened, a large cancerous mass was discovered lying chiefly on the left side. The parietes were separated with difficulty from its surface. The transverse colon was displaced, running along the inferior border of the tumour. The tumour extended upwards to the seventh rib on the left side, and downwards to within a hand's breadth of the symphysis pubis. It was bounded above by the stomach and spleen, the former being intimately connected (*i.e.*, part of) with the mass, the latter, adherent over the whole of the inferior surface, but connected with the mass at the inferior part. On the right side, it touched the liver, having the duodenum lying along its surface, and the transverse colon passing obliquely from the right hypochondrium into the left inguinal region. On the left side, it was bounded by the parietes, being firmly adherent to them. Behind, the kidney lay covered in by the mass, but unconnected with it. In front, the parietes were stretched over the tumour and the omentum at the lower part. The stomach, on being opened, showed numerous patches of ulceration on the posterior wall, this part being part of the tumour; the pylorus and anterior wall were free. The spleen, on section, showed scattered patches of encephaloid, and at the inferior border it became necessary to tear through the cancerous matter to separate it. The splenic tissue, in fact, was changed in this part to encephaloid. The kidneys and liver were free from secondary deposits. The aorta and vena cava were both pressed upon at their lower part, the calibre of the former being considerably diminished. The duodenum and colon were both distorted, but neither presented any patches of ulceration, although the latter contained bloody fluid.

On making a section of the tumour, a small piece of healthy pancreas was seen at the head of that organ; its structure, however, could not be distinguished elsewhere. The tumour, with the spleen, stomach, and pancreas, weighed eleven pounds and a half. It was distinctly encephaloid.

REVIEWS AND NOTICES.

A TREATISE ON FOOD AND DIETETICS. By F. W. PAVY, M.D., F.R.S., F.R.C.P., Physician to, and Lecturer on Physiology at, Guy's Hospital. 8vo, pp. 542. London: 1874.

DR. PAVY is an experienced lecturer on physiology, so that it was to be expected that the opening part of this treatise, which contains the elements of the science, should be full and complete. The teacher wisely never takes it for granted that his hearers or readers know anything or refers them elsewhere for knowledge, but allows the whole argument equal place. This is not always the way with original investigators; who are prone, both in lecturing and writing, to give undue prominence to their own reseaches, and thus to be less satisfactory as instructors than Dr. Pavy, who does ample justice to previous writers by impartially introducing their labours to the reader. There is very little done by Dr. Parkes, Dr. Letheby, and others, in the matter of diet and regimen, which is not judiciously incorporated in these pages.

After this *resumé* of theoretical dietetics, Dr. Pavy proceeds to review alimentary substances, which he classifies according to the natural history method into animal and vegetable, adding, however, much concerning their chemical constitution, which bears importantly on their dietetic employment. The scientific name of the source is given, and in many cases the mode of manufacture and the chief adulterations. We could have wished that Dr. Pavy had entered more fully into the external appearances of the articles of food, and assisted us with a few simple rules for the selection of the best sorts, the detection of adulterations, and the modes of preparation. We would suggest also that, in the case of vegetables especially, the seasons at which they are proper for food would be a valuable piece of information.

The next part of the volume is extremely interesting. The author has collected from our numerous recent books of travel, from historical and other sources, examples of strange and exceptional articles of diet. Of these, some, it is to be hoped, will become more and more exceptionally sought for; others are merely substitutes for ordinary victuals enforced by necessity, but a few seem really suggestive of dainty additions to our *menu*, and of openings for new commercial activity.

However well deserved may have been the praise bestowed by a French enthusiast on his invention—*avec cette sauce on mangerait son père*—and albeit Dr. Pavy demurs to the idea of cannibalism being considered a proof of the lowest stage of civilisation, it is unlikely that such a mode of utilising one's relatives will be again adopted in educated society.* It is dying out even in the Pacific homes of savagery, the natives having got a notion, of which we should decline to disabuse them, that man's flesh causes indigestion. Horse-flesh is another exceptional food, and probably will always be so. It can be good only by being grown on purpose for the market; and if thus grown and bred up fat and unwieldy, a new aim, and a deteriorating aim, in horse-breeding would be introduced. At the best, the flesh is not so palatable or nutritious, and quite as expensive, as beef or mutton; and to run the risk of degrading our breed of horses, which is the result of centuries of care and skill, for the sake of an inferior meat, is surely bad social science. To talk of utilising old or spent beasts in this way is idle. Only one in a hundred of those unfit for harness is fit for the table. It is so by an exceptional accident, and we shall be wise to let it remain a dainty for dogs and philosophers. Again, against the eating of animals which have died a natural death, there are sanitary reasons which make us hope that Bishop Colenso's Zulu friends will not try to teach us their peculiar taste for such diet, in return for our introduction to them of Christianity. There are still more serious objections to "*earth-eating*", a depraved appetite which seems to spread, like hysteria, by the contagion of imitation, and to which those who are addicted are eager to tempt all they can influence. In the Upper Amazon, ladies who employ native nurses are obliged to put their babies' heads into wire-masks to prevent their being taught this practice, which infallibly leads to premature death by dropsy or dysentery. The *élégantes* of Japan have a notion that dirt-cakes make their figures slim, which is probable enough, but we shall be sorry to see our countrywomen adopt similar attenuants.

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* The innate propensity is not, however, extinct. Some years ago, we interviewed in a Spanish prison a morose Gallician, who had reverted to ancestral habits, and eaten at least two babies. There was no doubt about the eating, but evidence of murder was technically deficient: so, as Spanish legislators have provided no punishment for cannibalism, he was illogically, but prudently, confined for life, pending proof sufficient for his execution.

With these exceptions, we do not remark any strange meats mentioned by Dr Pavy which are positively injurious; several others can be never anything but rare. However nice lion, and lynx, and otter might be, they are never likely to stock our markets; and, if hedgehogs and squirrels once became fashionable food, they would soon be extinct. But we cannot help thinking that habit has too much weight against the consumption of our very superfluous population of frogs, snails, conger-eels, and many sorts of fish. The energies of the hippophagists might be profitably pointed in the direction of some of these inhabitants which the world can at present well spare, and does not care to use otherwise.

To one anxious to overcome prejudices received through his organ of vision, a visit may be recommended to the quay of Santa Lucia at Naples. He may begin on green and black oysters of various sorts, then have handed to him a razor-shell, which he squeezes at one end, and, as the worm indignantly issues out at the other, he pops it in his mouth. Then he has a lively echinus split open, and the dainty caviare-like roe extracted for him. And then, perhaps, he may have acquired nerve enough to face a Taormina oyster, with its blood-red beard and black centre, looking like a gory eyeball, just gouged out. Then indeed he will have his reward in the most delicious *frutta di mar*, Amphitrite's garden. He may wash down his snack with a draught of an effervescent sulphur-spring in the middle of the market, and take home some cuttle-fish arms to be fried for dinner, as an introduction to a porcupine and a cuckoo, happy in the thought that his gardener at home would have starved rather than be nourished on that, on which he has fed deliciously.

The dietary of young persons is very generally too restricted for their comfort in after life. They are so limited to a small circle of victuals, prepared in a particular way, that when they come to travel or mix in society, they become unhappy or even suffer in health for want of their appropriate viands. Grown-up men have been heard to express disgust—an irrational feeling—against those who have eaten food not sanctioned by their family usage. The choice often lies between an ill-cooked or disagreeable meal or none, and they suffer in consequence. To eat anything eatable, should be a branch of education, and Dr. Pavy's curious list is a suggestive tutor. Instead of cumbering his pages with references to authorities, the writer has put them together in a body at the end, a plan which we would commend for imitation.

Exceptional articles of diet, taken from the vegetable world, are somewhat differently arranged, being named geographically, according as they are adopted by different nations, and in another part of the volume. But they are not less suggestive, and there is evidently great scope for the action of acclimatisation societies on this ground. Voyages made so long ago as those of Captain Cook, furnish hints which have never been duly worked out. It is not in the interests of luxury alone that we speak, for it would be a philanthropic deed to cover inhospitable shores "where the bird dare not build, nor the insect's wing flit o'er the herbless granite", with cochlearia, scopum acre, juniper, trefoil, and other plants, which to many a scurvy-stricken whaling crew would be simply life in exchange for death.

Another very usefully suggestive part of the work consists of a list of the dietaries of the principal British hospitals. To compare these is extremely interesting; it is a subject which might be advantageously worked out at length in a future edition, where might be pointed out what are real and what are merely apparent differences between them, and how their several purposes are most conveniently subserved. We have a grateful recollection of a valuable little pamphlet by Mr. Wilkinson, secretary to St. Mary's Hospital, on the financial aspect of the same subject, which might be properly worked in with these bills of fare. A certain uniformity in their differences, and probably many extravagancies in some which appear most economical, and latent economies in the most lavish, might be detected.

The part devoted to the diet of invalids is not so complete as might be. But there are some important *delenda* to which we would call the author's attention. We refer to the names and addresses of certain London tradesmen, who are thus given a monopoly which is not to the advantage of open trade.

Tea, Coffee, and Cocoa. By J. Alfred Wanklyn. London: Trübner and Co. 1874.

The little book before us is one of a series of manuals intended for the guidance of public analysts under the Adulteration Act.

According to the author, one of the main duties of the analyst in examining tea consists in making out whether or not the tea has been used. The principle of the method employed for this purpose is exceedingly simple. When tea is used it is deprived, more or less completely, of its soluble portion or extract, and the difference between tea-leaves before and after they have been used in making the beverage, will be found on again submitting them to the solvent action of boiling water, which will extract much from the original tea, but will extract little from the exhausted tea. This will be readily understood by everybody, but the practical carrying out of the experiment, so as to arrive at the relative amount of extract yielded by different specimens of tea, is rather a tedious and impracticable operation. Many years ago a celebrated French chemist, M. Peligot, made a number of determinations of the amount of extract yielded by different sorts of tea, and the subject was again taken up by a chemist in Liebig's laboratory, but the operation was still tedious and impracticable. Mr. Wanklyn describes a process for the determination of tea-extract which is exceedingly simple and rapid, and it is hoped that the taking of tea-extracts will become general.

According to M. Peligot there is, in some kinds of tea, as much as fifty per cent. of matters soluble in boiling water, and this is confirmed by Mr. Wanklyn. This very high proportion of soluble matter is, however, found only in very choice tea, the usual proportion in genuine tea being about 36 per cent.

In the chapters devoted to theine, the alkaloid of tea, the author discusses the varying yields of theine found by different chemists, attributing them, not so much to real variation in the proportion of theine actually existing in tea, as to the imperfection of the method of extracting the theine. A good method of estimating the amount of theine in tea is still a desideratum.

Tea and coffee belong to the Eastern world; cocoa and chocolate (which is a preparation of cocoa) came to us originally from ancient Mexico. Cocoa, as is pointed out, is food rather than drink. In addition to the fact of cocoa containing a large proportion of exceedingly available fat (which was very well known) the author points out that cocoa contains very much phosphate of potash. In tea there is much potash, and much phosphoric acid, but the greater part of the phosphoric acid existing in tea-leaves does not pass into solution, but remains behind with the exhausted leaves. When tea is taken as a beverage, comparatively little phosphoric acid is taken; but a considerable quantity of phosphoric acid is taken when cocoa is employed as an article of diet.

Although this book is primarily intended for the public analyst, we do not think that it is by any means without interest for the general public, and certainly it has interest for the medical man.

Coroners' Charges.—At the meeting of Middlesex Magistrates for county business on July 23rd, the Coroners' charges were stated to be as follows: Mr. Humphreys, 221 inquests, 50 *post mortems*, £376 15s. for disbursements, each inquest averaging £1 14s. 1d.; Dr. Lankester, 217 inquests, 178 *post mortems*, £556 7s. 6d. for disbursements, each inquest averaging £2 11s. 3¼d.; Dr. Diplock, 85 inquests, 56 *post mortems*, £177 17s. 6d. for disbursements, each inquest averaging £2 1s. 11¼d.; Mr. Bedford, 53 inquests, 27 *post mortems*, £98 10s. for disbursements, each inquest averaging £1 17s. 2d.; Mr. Payne, 10 inquests, three *post mortems*, £22 4s. for disbursements, and each inquest averaging £2 4s. 4¾d.; amounting in all to £18,986 7s. 9d. The Coroners having sworn to the accuracy of their respective accounts, they were ordered to be paid.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 37, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 8TH, 1874.

THE SERVICES AND THE STUDENTS.

THE extremely curt and rather irritable reply which Mr. Gathorne Hardy has given to his last questioner on the subject of Army Medical Reform, does not indicate any very early intention to ameliorate the position of the Army Medical Service. Notwithstanding that there are now more than fifteen officers of upwards of fifteen years' standing who still remain assistant-surgeons in all except name; notwithstanding that there is so great a pressure on the department, that medical officers recently arriving home from lengthened foreign service have been posted to home duty without receiving the usual sixty days' leave; and notwithstanding that the Army Medical Service suffers exceptional hardships under the successive changes which economical administrations have introduced,—Mr. Hardy declines to consider their case separately, but will make it part of a general reconsideration of army organisation when the time is ripe for it, and when the consideration of the whole question shall have been completed. It is thus that we are forced to interpret the meaning of his answer to Colonel Learmouth. With every desire to do justice to Mr. Hardy's good intentions and capacity as an administrator, we cannot consider such a decision to have a shadow of justice, or to be such as can for a moment be considered as final. We can only assure him that he has not yet fully looked into the matter laid before him, as he certainly promised that he would. A very short examination of the subject would have shown that the case of the medical officers is altogether exceptional. With them, promotion is at a standstill; their privileges of retirement are illusory; they have been deprived of forage-allowance, and mulcted in band-expenses and mess-expenses; they have most of the costs of the regimental system weighing upon them, without any of its advantages; they have the discomforts of the staff-system without its privileges. Every year sees their number diminished, their duties heavier, their periods of leave and leisure diminished, their periods of service in junior ranks lengthened, their promotion delayed, their allowances and privileges lessened. Meanwhile, the relative value of money grows smaller, their preliminary education is made longer and more costly, and the tests of qualification are raised. The value of appointments in civil life, and the external demand for well-paid medical services, are at the same time increasing. Under such circumstances, Englishmen, although ever more ready to grumble than to act upon their discontent, will in the end surely come to the conclusions of which the bases lie so plainly before them. A service which is brought down by one minister to the smallest number of straws *per diem* on which it can possibly exist, and is snubbed by his successor when it complains of starvation, will fall from attenuation—the stage which it has already reached—to decay. The number of medical officers available now is considerably less—some forty, we believe, less—than it was eight or ten years ago, though it has the duties to perform. Many of the juniors have already reached a stage at which the expectation of the degree of promotion, which is an object of just and ordinary anticipation, is altogether denied them. The disappointment and chagrin which they feel must reflect themselves in the medical schools. Nay, matters have reached a pass at which it is right that they should do so. The students of our medical schools have now a right to be told how greatly the Army and Navy Medical Services have deteriorated during the last few years as objects of legitimate ambition: how slow is the promotion; how poor the pay; how delusive the privileges; how unfairly those granted in former years have been pared away; and how little disposed are ministers to deal with the known, acknowledged, and wide-spread discontent in both services. No doubt the introductory lecturers will, at the commencement of the coming session, do their duty by calling the attention of the students to the deterioration of the public services as a career for young medical men. It is right that they should do so; for the grand argument with which the recent deputation to the War Office was met, was to sneer that men could still be found to come forward; and, while this was the case, the subject could not be considered urgent. Medical students will consider, therefore, that they owe something to themselves and something to others in this matter. By abstaining from presenting themselves as candidates for the public services until a more prompt and efficacious attention has been given to the well-grounded complaints of the services, they will secure the proximate dealing with the subject as one of urgency. Two or three "examinations" without candidates would do much to change the opinion of the permanent officials, who advise ministers as to the question of "urgency". At the present stage of affairs, and in the present temper of those officials, it is the one thing which is needed. They have before them clear and unanswerable statements of the wrongs of the services: they cannot answer them, and they have not attempted to do so. In reply to questions whether they are disposed to redress them, the answer is, that the matter is not urgent. It is for the medical students to show them that it is urgent; and the sooner they do so, by abstaining for the present from naval and military competitions, the better for themselves and for their brethren. We commend the matter to their serious consideration.

THE LOCAL GOVERNMENT BOARD AND THE DISEASES PREVENTION ACT.

ONE of the most serious obstacles to the prevention of the spread of epidemic disease, as the law at present stands, is the want of compulsion on sanitary authorities to provide hospitals for the reception of cases of infectious disease. In many places, the provision of this primary requirement for the protection of the public health would fall on a single authority which has a large town or district under its sole care. In such cases, the responsibility of refusing to provide a hospital rests solely upon such one authority, though unfortunately, under existing circumstances, this responsibility, and the corresponding duty of fulfilling it, is purely a moral one, and of such an intangible kind that sanitary authorities, as a rule, find no difficulty in avoiding it. In other places, however, where, as is often the case, a more or less compact population is under the jurisdiction of two or more neighbouring sanitary authorities, it is essential, for economical as well as for other reasons, that they should combine to meet this and other requirements.

This is the more necessary in the case of such a sudden outbreak of epidemic disease as has lately occurred at Newmarket, where, as the public journals have sufficiently proclaimed, an outbreak of small-pox has taken place of sufficient virulence to tax all the energies of the sanitary authorities and their medical officers of health. It appears that, in view of providing a temporary hospital, before the use of the grand-stand on the race-course was obtained for the purpose, the urban and rural sanitary authorities of Newmarket agreed to apply to the Local Government Board to put the Diseases Prevention Act in force in the district with the object of enabling them to combine to carry out the above as well as other necessary arrangements. To this apparently very sensible request, the Board has replied that "they have not in any instance issued such an order to meet an epidemic of small-pox, and that they see no reason for making an exception in the present case". For what purpose, we should be glad to know, does the Local Government Board suppose that the Diseases Prevention Act was passed, if not to enable it to meet just such a case as the one in question? And if small-pox is to be excluded from the scope of the Act, what diseases is it intended to cover? It surely cannot be contended that it was meant to provide solely against cholera, or that the severity of many outbreaks of small-pox is not quite as great, and the difficulty of dealing with them quite as serious, as that of any ordinary visitation of cholera is likely to be. It would appear from this communication that the Board looks upon the Act as some terrible engine of power only to be called into operation on some almost unheard of emergency, instead of an Act every provision of which might, and indeed ought to, be in actual operation as an ordinary arrangement in every district.

It is really difficult to understand the timidity which the Board displays, not only in this, but in other proceedings of a similar kind, except upon the supposition it fears that any exercise of its coercive powers would be most vigorously resisted by the districts to which they might be applied, and that its popularity, or even its stability, might be thereby imperilled. We must confess that the example which the present Government have made of the Endowed Schools Commissioners is not very assuring on this point to weak-kneed functionaries, but we venture to think that the Local Government Board may go a long way further than it has yet ventured in the exercise of its autocratic powers before it is likely to become even as unpopular with the public as the despisers of "the pious founder" are asserted by the Duke of Richmond to be. We are quite certain that, if the Board were to exercise a little more of that pressure upon sanitary authorities which it can easily exert, it would meet more frequently with the gratitude of those who are most interested rather than with their censure. The Board has far too much of a tendency to assume the character of a *roi fainéant*. King Stork may, in sanitary matters, be a very undesirable potentate to hold sway, but King Log is certainly very little better. Anyone who has had any experience of local authorities knows well enough that, although they frequently bluster a good deal when the powers of the Local Government Board are talked of, they hold them in very respectful dread; but if they find out, as they very soon will do, that the Board not only has very much less power than they imagine, but that where it has powers it is too timid to exercise them, what is now mere bluster will soon become indifference and contempt. One of the most difficult things to accomplish is to induce sanitary authorities to combine to erect hospitals for infectious diseases, or, indeed, to take any other effective step to prevent the spread of such diseases, even in the midst of such an outbreak as has occurred at Newmarket; but that, when they invite the assistance and support of the Local Government Board, as the Newmarket authorities have done, they should receive the cold shoulder is, it may be, very consistent with the traditions of Poor-law management, but not the kind of treatment which the public have a right to expect from a new department, one of the objects of whose creation was to establish a new order of things both in Poor-law and in sanitary administration.

THE LONG VACATION.

"To every thing there is a season, and a time to every purpose under the heaven", says the preacher; and the words have not yet lost their original force. If there is a time to work, there is as certainly a time to play; a lesson which is, we fear, too frequently forgotten by the hard-worked members of the medical profession. The professors and lecturers at the medical schools, consulting physicians and surgeons in large practice, and students, need not, perhaps, be reminded that there is a long vacation; but to some of these, and to the great mass of general practitioners, it may, perhaps, be with advantage hinted that an occasional holiday, with change of scene and occupation, is good for everyone. It benefits the physical, the mental, and, when rightly used, the moral portions of man's being. This is no mere theory; it forms the universal experience of mankind. Starting, then, with the assumption that everyone should have his holiday, one may inquire when it should be taken. Upon this point, the practice of individuals differs considerably. Most persons would agree that play should succeed work, and this opinion would appear to be that which Nature dictates. Undoubtedly, the pleasure derived from a holiday is usually much greater when one feels the relaxation has been earned beforehand by hard toil. But family considerations and conveniences of all kinds have often to be consulted in respect to the time for going away; so that it is, indeed, well if the opportunity for holiday-keeping can be made when it is most needed—that is, when the brain and body are fatigued from work. For Londoners, who are, to a large extent, the victims of conventionality, the long vacation comes in the autumn, and this arrangement has doubtless become so general because it has been found to be in accordance with the requirements of the dwellers in the metropolis. Summer-heat and sunshine seem to be far less pleasant when one resides amongst brick walls than when one lives in the midst of green fields and lanes. And it is because the heat, dust, bustle, and noise of the London season produce upon most persons who exist within their influence a feeling of lassitude and general loss of tone, that we would urge them to obey the natural dictates which would impel them to seek renewal of health by temporary abstention from work and departure from home. Let one watch the jaded practitioner at the end of the London season, and again see the change effected in him by a small holiday; he scarcely seems to be the same man; work, which before was laborious, is now performed with alacrity, and he is capable of doing much more of it in the same time.

As regards the place for holiday keeping, this also depends largely upon the means and time at disposal; suffice it to say that one need not necessarily travel on the continent to recruit one's strength or enjoy the period of repose. There are numberless health-resorts in England, any of which we may choose with advantage; and within a hundred miles of town charming country and seaside spots abound. Many people occupy almost all the holiday in the railway train; which would seem to be a decided mistake, if health is the chief object in view. But, wherever the holiday is spent, the time need not be wasted; all ordinary work, indeed, should be put aside, but exercise of body, though not too strained or long-continued, should be indulged in, and some mental work that interests should be undertaken. The natural history of the locality may be studied, etc., for "change of work is as good as play". In such matters, each man's inclination may be a law for himself, whether it incline him to hunting, boating, fishing, quiet arcadian or seaside joys, or the climbing of Mont Blanc.

It may, however, be urged by some to whom a holiday would be most beneficial, that they cannot afford the money which a trip would cost; that they fear to leave their patients in the hands of a *locum tenens*, etc. To which it may be replied that health is the chief blessing, in comparison with which other considerations are of small consequence. Many deaths of young and middle-aged London doctors occurred last autumn and winter. The careers of Drs. Murray, Fuller, Phillips, Webb, Dickson, and other noted men, had an untimely end; and, in many instances, it was recorded that over-work and want of a good autumnal holiday had no small share in producing the sad results. Let others, then, be wise in time, and seek a change in some way or other.

If work cannot be entirely abandoned, on the ground of impecuniosity, it might be as well for gentlemen living in country and town respectively, to change practices for a time. Clergymen interchange courtesies of this description, and there would seem to be no reason why doctors should not do the same. Hospital chums could thus utilise with advantage their old acquaintanceship, and renew the associations of former student days. But how and when the doctor has his holiday is not the important item; it is the fact, and it should be more generally insisted upon, that he requires occasional relaxation. A holiday is something to look forward to; it is pleasant in itself; and it affords, if rightly used, most pleasurable food for subsequent contemplation. It may take one away from the anxieties and competitions of practice, and the smallnesses and weaknesses of fashionable town-life, to the peaceful and more highly moral atmosphere which can be found in green fields, and by the ocean's waves. So blessed and easily attained a result is surely worth a small effort for its accomplishment.

MEDICAL OFFICERS OF HEALTH AND REGISTRARS OF DEATHS.

We publish, in another place (page 189), a correspondence on a somewhat important point in the duties of Medical Officers of Health, which has taken place between Dr. Cornelius Fox, Medical Officer of Health for the Chelmsford Combined Sanitary District, and the Registrar-General. Dr. Fox, in reporting to the Sanitary Authority on the sanitary condition of a parish in his district, was naturally desirous of obtaining information as to the deaths which had occurred in it in previous years. On applying to the district registrar to be allowed to consult the register of deaths which was in his possession, he was refused permission to do so unless he paid "the usual fee." It will be seen that the Registrar-General upholds the district registrar in this course, and we must say, in our opinion, quite rightly. It is obviously of the first importance that Medical Officers of Health should be allowed the opportunity of consulting the register of deaths, which Dr. Fox in this case desired; it is also equally obvious, as the Registrar-General assumes, that no public record should be open to consultation by any one without due provision being made against injury to or misuse of it. The person who is responsible that this shall not take place is the person in whose custody it is for the time being placed. It would be therefore necessary, whenever a Medical Officer of Health wished to consult a register, that the registrar should, if he thought it necessary, be himself present during the operation, or should depute some one to be so. Now, it would be unfair to expect him to do this without remunerating him for so doing. He has quite as much right to demand a fee for being thus kept sitting in his office, whilst the Medical Officer of Health is consulting his registers, as he has for himself supplying extracts from them. What is wanted is the power, on the part of the Medical Officer of Health, to demand access to the register of deaths, whenever he may wish to consult it, and, on the part of the registrar, to charge a reasonable fee for the purpose.

Who should pay this fee is another matter. We quite agree with Dr. Fox, that it should not come out of the pocket of the Medical Officer of Health, any more than the fee which is payable for the copies of entries of deaths, which will be in future supplied by Sanitary Authorities to their officers, in virtue of the forthcoming Registration Act, and of the memorandum on the subject of the Local Government Board. It is clearly as much the duty of the Sanitary Authority to pay the one as the other, and we are somewhat struck that Dr. Fox does not raise this point at all in the correspondence, except to assume that it is quite out of the question to expect that any of the Sanitary Authorities with which he is connected will pay a fee for such a purpose. All that we can say on this point is to advise Dr. Fox, under existing circumstances, to ascertain what fee the registrar requires for affording the information which he requires, to apply to the Sanitary Authority to pay the fee, and, in case they refuse to do so, to formally state in his report the reason why he is unable to give the information which is necessary in order to make his report complete. It is quite true that, in the uncertainty of the law on this subject, a Sanitary Authority might be justified in refusing to pay such a fee, on the ground that it is not authorised to do so. This may or may not be the case; in the uncertainty which exists as to what Sanitary Authorities may pay for, the issue would depend upon the view which the auditors and the Local Government Board might take with regard to it. We have had sufficient experience of the conflicting variety of decisions which these authorities have made on such points to admit that a Sanitary Authority, which was unwilling to pay a fee for the purpose in question, would have some reason for shelving itself at present under this excuse. We have not the new Registration Bill at hand as we write, to be quite certain that it provides for such a case as this, but our impression is that it does not. It may not, however, be too late to get a clause inserted in it to this effect, and making it compulsory upon Sanitary Authorities, subject, if necessary, to the approval of the Local Government Board, to pay such fee in all cases in which the Medical Officer of Health might require the information in question. Even if any objection should be taken by the Local Government Board to the insertion of this latter condition, which we should scarcely think will be the case, we apprehend that few Sanitary Authorities would incur the responsibility of distinctly refusing to pay any reasonable fee which a registrar might be entitled to claim for supplying information which the Medical Officer of Health might state was essential to enable the Sanitary Authority to do its work properly. At any rate, if any of our readers should be aware of such a case, we shall be glad to be informed of it, in order that we may be able to give it the benefit of publicity. The privacy with which the proceedings of many Sanitary Authorities are conducted, especially those in rural districts, is the main reason of much of the huckstering economy which is practised by them. If their meetings were invariably open to public notice and criticism, they would be less willing to perpetrate acts of ill-judged parsimony than they now are.

THE INTERNATIONAL SANITARY CONFERENCE AND QUARANTINE.

The International Sanitary Conference in Vienna, which has recently terminated its meeting of a month's duration, has, besides agreeing to a series of resolutions on the origin, nature, and contagion of cholera, discussed the agent of quarantine. The following are the rules on which they have agreed.

"1. In seaports in which there are no quarantine institutions, as in those of the Red and Caspian Seas, a sanitary authority shall be constituted, consisting of medical men and Government officials, with a staff of assistants. The number of members of the Board belonging to each class is to be regulated according to the amount of shipping intercourse in each port; but, under all circumstances, it must be sufficient to ensure a speedy dealing with the ship and crew, as well as of the passengers. The chief of the sanitary authority must keep himself in official communication with cholera-infected ports, which may come into contact, through intercourse by ships, with that to which he belongs.

"2. Every ship arriving from an unsuspected port, which the captain shall have declared on oath neither to have touched at an infected port nor to have had direct communication with an infected vessel, and on board which no suspected or distinct cases of, or deaths from, cholera shall have occurred during the voyage, is to have free *pratique*.

"3. All ships coming from infected or suspected ports, as well as those from uninfected ports, which during the voyage have touched at an infected place, or held any communication with an infected ship, or on which during the voyage suspected cases of illness or death from cholera have occurred, shall, on their arrival, be subjected as soon as possible to a strict medical examination as to the state of health of their crew and passengers, the captain, ship's officers, and doctor (when there is one) being bound to report to the examining doctor any suspicious symptoms of illness on board which may have come to their knowledge. If the medical investigation show that no case of illness in any way suspicious exists among the crew and passengers, the ship with all that it carries to be immediately admitted to free *pratique*.

"4. The bodies of those who have died of cholera, as well as all cholera patients found on a ship newly arrived, are to be taken on shore; the former immediately buried, the latter placed in a hospital always kept in readiness for such cases, or, when there is not one, in some house or barrack or isolated place, or in as isolated place as possible in the country. Should any suspected cases of cholera or deaths have occurred during the voyage, or should suspected or decided cases of cholera, or dead bodies whose death is traceable with probability or certainty to cholera, be found on board a ship on its arrival in port, the crew and passengers, after the removal of the sick and dead, shall undergo a process of cleansing and disinfection under the supervision of the Board.

"5. At the same time, all the clothes worn by the healthy individuals, or used by them during the voyage, as well as all their effects, are to undergo a thorough disinfection in a room arranged for the purpose, under the superintendence of the Board. After the disinfection, their effects will be given back to their possessors, who, in the meantime, will have taken a cleansing bath, and they will then be perfectly free.

"6. After the withdrawal of all persons, except those absolutely necessary for the service of the ship, any vessel arriving under the conditions named in section 3 is to be subjected in all its compartments to a thorough disinfection.

"7. The goods landed from the disinfected ship, even the rags and objects used by the cholera patients, after being properly disinfected, are to be considered innocuous."

A commission was appointed to discuss international regulations for the quarantine establishments in those States which intended to erect such, consisting of Drs. Hirsch (Berlin), von Alber Glanstätten (Austria), Seaton (England), Fauvel (France), and Bartoletti (Turkey). The report, which, without any important alterations, was accepted by the Conference, states that quarantine against the spread of cholera is applicable on sea to ships coming from infected ports. The following rules are then laid down.

"1. Vessels from infected ports must undergo an observation quarantine, which, according to circumstances, may last one to seven full days. In the Oriental ports of Europe and elsewhere, though only in certain exceptional cases, the surveillance may be prolonged to ten days.

"2. When the Board of Health have sufficient proof that, during the passage, no case of cholera, or anything like it, has occurred on board, the surveillance is to last three to seven days, reckoned from the medical inspection. If, under these circumstances, the voyage has lasted at least seven days, the surveillance is to be limited to twenty-four hours, to give time for the examination and disinfection considered as necessary. In cases under this category, the observation quarantine may be held on board as long as no case of cholera or suspicious circumstance occurs, and when the hygienic conditions of the ship allow of it. In these cases, the unloading of the ship for disinfection is not necessary.

"3. When, during the passage or after the ship's arrival, cases of real or suspected cholera occur, the surveillance for those who are not ill is to last seven full days, beginning from their isolation in a hospital or whatever place is assigned to them. The sick will be disembarked and properly attended to in a place separated from the persons under surveillance. The ship and all objects to undergo a thorough disinfection, after which those persons obliged to remain on board will be subjected to surveillance for seven days.

"4. Vessels from suspected ports, that is, such as lie near a port where cholera prevails, and are in intercourse with it, may be subjected to observation quarantine, which must not last more than five days, if no suspicious circumstance happens on board.

"5. The emigrant and pilgrim ships, and in general all vessels whose character is deemed especially dangerous to the public health, may, under the above-named conditions, be made the objects of particular regulations, which the Board of Health will decide.

"6. When the conditions of a place do not allow of the prescribed regulations being carried out, the infected ship is to be despatched to the nearest hospital, after it has received all the assistance that its condition may require.

"7. A ship coming from an infected port which has touched at a port *en route*, and there being allowed free *pratique* without any quarantine, will still be regarded and treated as coming from an infected harbour.

"8. In cases of mere suspicion, the disinfection regulations are not prescribed, but they may be applied when the Board of Health consider them necessary.

"9. In ports where cholera is epidemic, especial quarantine is no longer to be kept, but only means of disinfection to be applied."

With the resolution to abolish river-quarantine the stipulation was made that river-boats, when cholera-patients are found on them, should undergo a thorough inspection. At the same time, the intercourse between both banks to be kept open. When the *debouchures* of rivers are navigable for sea-vessels, these are to be subjected to the rules for sea-quarantine.

With regard to the establishment of an International Sanitary Commission, the Conference advanced seventeen articles as *desiderata*, the most important of which are the following.

"An International Epidemic Commission to be organised. To be permanent, and have its seat at Vienna. Its members to consist of delegates from all the Governments taking part in it. A president to be chosen from among them as representative of the Commission, who will correspond directly with the different Governments, and eventually with the various Sanitary Boards. The International Commission to be independent in its scientific labours, but administrative questions to be decided by a majority, every State having a vote in all final decisions. The ordinary routine of business to be settled by the Board itself. The Commission to be bound to communicate to their respective Governments the results of their scientific and administrative labours. The necessary computations of cost to be made by the Board and submitted to their respective Governments. The expenses to be covered by the contributions of the different States, and eventually by receipts. The sum total required to be apportioned among the different States with reference to the numbers of their population and the tonnage of their commercial fleet. The objects of the International Epidemic Commission to be the furtherance of the study of epidemics among mankind, proposals for the erection and administration of quarantine establishments; professional opinions in answer to inquiries from any Governments represented in the Commission, the arranging of international sanitary conferences as often as necessity requires, and the drawing up of their programmes. Where epidemics are constant, permanent stations to be established, and, where they exist only for the time being, temporary arrangements to be made for the study of the epidemic on the spot, and inquiry into means of protection from it. In the same manner, during any great epidemic, arrangements to be made to follow it from place to place, with the object of studying the laws of its dissemination. For those territories which have no organised sanitary service, such epidemic stations to be established with the consent of the Governments to which they belong, on the principle proposed by the International Commission of assisting such countries in times of severe epidemics. The International epidemic stations to be subject to the Commission. Their *personnel* will be appointed by them with the consent of those States on whose territory their labours are carried on. The present arrangement to last for ten years. The revision of separate details on the motion of any of the States concerned, or by a vote of an international conference to be reserved."

The Conference decided that, like cholera, yellow fever is spread by communication, and, therefore, it was the duty of the International Epidemic Commission to institute inquiries into its origin and causes. Like cholera, yellow fever must be opposed, in case of a severe outbreak, by a system of surveillance or quarantine, according to certain fixed rules. Every State is free to choose either method. The best places for the study of yellow fever are declared to be those ships which trade among the chief seats of this disease. Just as in cholera, the spread of yellow fever, according to place and time, must be followed with exactitude.

At the closing ceremony, Baron Orczy, of the Austrian Foreign Office, made a speech, in French and German, and expressed to the Conference, in the name of the Emperor, the satisfaction that his Majesty felt at the result of their deliberations.

THE Gray's Hospital, Elgin, has received a donation of £1,000 from Mr. Grigor of Forres.

A NEW university will be opened at Agram in Croatia, in October next. It will have the name of the "Francis-Joseph University."

WE regret to have to announce the death of M. Cullerier, the celebrated surgeon and syphilographer, which took place, at his residence in Paris, on Monday last, the 3rd instant.

DR. FRANCIS HENRY LAKING has been appointed apothecary in ordinary to Her Majesty's household, in conjunction with Mr. du Pasquier.

DR. EVAN BUCHANAN BAXTER has been appointed Professor of Materia Medica, and Mr. Alfred Henry Garrod Professor of Comparative Anatomy, in King's College, London.

THE sixteenth annual meeting of the New Sydenham Society will be held in the Assembly Room, Norwich, on Thursday, August 13th, at nine o'clock, A.M., when the annual report and balance-sheet will be presented, and the officers for 1874-5 elected.

MR. EDMUND POPE, surgeon of Brixton Road, was charged before Mr. Ellison, at the Lambeth Police Court, on the 4th instant, with criminally assaulting Jane Field, a domestic servant, aged 15. The case was remanded, defendant's bail for £1,000 being taken.

CHOLERA is reported to have been spreading in the district of Gross-Strehlitz and Pless in Silesia. The Government has taken measures to arrest its further extension.

A SECTION of Military Hygiene will be formed during the meeting of the Association of German Naturalists and Physicians at Breslau. The following communications have been promised: Staff-surgeon Stier, on the Medical Topography of the Garrison of Breslau; General-surgeon Roth, on Sanitary Affairs in the last Extra-European Campaigns; and Staff-surgeon Frölich, on the Military Surgery of the Middle Ages.

A MAN named Thomas Davis, in the employ of a charlatan named Du Brange, was summoned, on July 31st, before Mr. Knox, at Marlborough Street, for distributing papers of an offensive nature. Mr. Knox, in giving his decision, said that, as the bills were not strictly obscene, he must dismiss the summons. He was bound to say, however, that there ought to be some clauses inserted in the Act to prevent such papers from being distributed. The distribution of such papers was a very disgraceful thing, and, though it was an offence against morals, the law as it at present stood would not touch the offence. The best course that could be adopted would be to apply to Mr. Secretary Cross to get a clause inserted in the Act to stop the circulation of such papers, and to reach those who caused them to be circulated.

A SURGEON CONVICTED.

FREDERICK SUTTON, late surgeon-superintendent to the Norwich Pauper Lunatic Asylum, was tried at the Norfolk assizes, on the 4th instant, for defrauding the mayor and corporation of Norwich. The offence was proved, and Mr. Justice Keating sentenced him to one month's imprisonment. A confederate named Steggles, a nurse, was also sentenced to seven days' imprisonment.

CROWN PROSECUTION AGAINST A SURGEON FOR NEGLIGENCE.

ON July 28th, Mr. Edwin Peacock was arraigned on a charge of manslaughter. The defendant had attended a labourer's wife in her eleventh confinement; and his treatment was alleged to have been the cause of her death. The coroner's jury expressed an opinion that no blame was attached to the medical man, but the magistrate, on an application from the husband of the deceased, granted a summons. The case has been adjourned until October 9th next, the defendant being admitted to bail on his own recognisances in £200.

ADVICE BY CHEMISTS.

WE discussed lately the subject of counter-conferences, in connection with the dicta of a late President of the Pharmaceutical Society. The view suggested by the following passage in the address of the President of the "Pharmaceutical Conference" this week, held in London, is, however, inferentially far more objectionable than that of Mr. Sandford. It is expressed incidentally by way of special objection to "co-operative" drug stores, and runs thus:

> "We are likely, if not wide awake to the fact, to be peculiarly injured by this style of trading. Co-operators cannot get advice from the store; they will, therefore, go to the local chemist for it on pretence of some trifling purchase. We must, therefore, be on our guard against this gratuitous brain-sucking."

We cannot but think that a reference to counter-practice by chemists in an address at a great pharmaceutical meeting, made, not as a thing to be sternly repudiated and repressed, but as a special privilege which they enjoy over "co-operative" drug salesmen, and one not to be bartered against too cheap a purchase, is a very serious and painful fact. We by no means believe that the more respectable class of chemists will endorse this mode of dealing with the subject. If they do, the sooner the public and the profession devote their whole energy to the establishment of co-operative drug-stores, where pure drugs will be dispensed at a low price without any arrangement for adding to the drug till an implied charge for the druggist's "advice", the better for the public health. But we repeat that we do not believe that the trade will endorse this view of the Pharmaceutical Conference. So stated, however, and thus authoritatively enunciated, it seems to call for some well considered but decisive repudiation; for it cannot but shake the confidence of the medical profession in pharmaceutical traders that such a paragraph should appear in the President's address. It is certainly the strongest thing that could possibly be said in favour of the application of the co-operative principle to drug-stores.

PATENT MEDICINES.

THE same address which contains the above very objectionable passage relating to advice by chemists, has a very sensible one on patent medicines.

> "I should like to say a word or two about the trade in patent medicines, a subject to which the attention of the Legislature ought, I think, to be directed. I find that during the financial year ending March 31st, 1873, stamp-duty was paid on no less than 12,731,753 packages of patent medicines—considerably over a million more than during the previous year. The revenue thence derived amounted to £95,812 for stamp duties on the medicines, and £7,283 for excise duty on patent medicine vendors. The aggregate of these sums is, of course, a mere bagatelle in the revenue of this great country, so that financial consideration need not be regarded in considering the question whether or not it is advisable that the present system should be continued. I regard the whole system as rotten, and believe it to be productive of great evil. For, to what has advertising patent medicines now sunk? It is in the main (I allow some honourable exceptions) a systematic exploitation of the ignorance and credulity of sick people, and, therefore, calls loudly for some sort of regulation, if not extirpation. The medical profession, who are more nearly concerned with the public health than are the chemists, will best appreciate the extent of the evil, and to them rather it appertains to suggest a remedy for the abuse."

THE ENGLISH CONJOINT EXAMINATION SCHEME.

THE intended notice which the Council of the Royal College of Surgeons proposed to give to students entering the profession in October next, as to their being required to prepare for examination by the Conjoint Board, will, we fear, be postponed. This is the result of the opinion of counsel as to the requirement of the charter that the Council shall appoint examiners for their diploma in surgery, and not any delegated committee, such as the Conjoint Committee of Reference. The best way of getting over this difficulty is not yet ascertained. Should no *medium iter* be discovered, no doubt the College will feel called upon to follow the example of the University of London and the Apothecaries' Society, by procuring an enabling Act; and we believe that a notice to that effect has been given. Such an Act might well be sufficiently large to include any other corporations or universities here or in the sister kingdoms, so as to enable them to overcome any technical difficulties which their charters or acts may interpose in the way of forming conjoint examining boards for the qualification to practise. The Government have already manifested a willingness to afford facilities for this desirable course.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

WITH reference to the Registrar-General's Quarterly Return for the three months ending June last, which has just come to hand, we must for the present be content to notice its more salient features, reserving a more detailed examination for a future occasion. The high marriage-rate which prevailed throughout 1872 and 1873 has hitherto been maintained in 1874, and, considered in connection with a marked decline of emigration and in the extent of pauperism, affords evidence of material prosperity. Although wheat was dear, the price of meat was lower than it has been since the early part of 1872. The birth-rate was higher than in any corresponding period since 1868, and suggests a rate of increase of population in excess of that which prevailed during the decade 1861-71. The public health appears to have been but slightly affected by the unusually warm April, followed by a cold May; or by the remarkably small rainfall, which, during the seven months ending June 30th, only amounted to 6.9 inches (6.8 inches less than the average amount), and is, without exception, the smallest on record for the seven corresponding months so far back as 1815.

The annual rate of mortality last quarter, although rather higher than in the second quarter either of 1872 or 1873, was below the average for the corresponding quarter of the ten years 1864-73. The fatal cases of the seven principal zymotic diseases exceeded the number in the same period of 1873 by more than 5,000, owing to the greater prevalence of measles and scarlatina. The deaths from small-pox, which were 249 in the last three months of 1873, were 427 and 655 in the first two quarters of this year. This increase has taken place principally in Warwickshire and Birmingham.

THE WAGES OF THE WORKING CLASSES.

AT a time when much is being said about the necessity of devising some means whereby the working classes shall contribute towards their own medical relief, and when some tender-hearted philanthropists are inclined to think that any such arrangement would bear too hardly upon them, the following paragraph, from the *Charity Organisation Reporter*, will be read with interest.

"Lord Shaftesbury is reported to have stated recently, at the opening of the new entrance to the Shaftesbury Park estate, 'that the wages of the working classes of England could not be less than £400,000,000 a year. At least one quarter of that was spent upon deleterious commodities, or, at all events, upon things that men could very well do without. Honest thrift was that which would make the working classes independent and self-reliant in adversity, and powerful, orderly, and loyal in prosperity'. The author of a paper on the Manual Labour Classes, read at the meeting of the British Association in 1871, put the total yearly earnings of these classes at £267,000,000, but wages have risen much since then. He estimated the most skilled class at 1,178,000, and their earnings, less deductions for want of work, etc., at £60 to £73. The less skilled class he estimated at 4,009,000, and their average wages at £46 to £52. The agricultural and unskilled classes he put at nearly 3,000,000, and estimated their earnings at from £20 to £41. These figures were intended to include boys, women, and girls systematically working for wages. The same writer estimated that out of eighty-nine millions expended annually in spirits, fifty-eight millions came from the working classes, which was, on an average, upwards of a fifth of their wages".

HEALTH OF THE TROOPS AT WIMBLEDON.

AN official report on the health of the troops recently encamped at Wimbledon has been addressed by Surgeon Owen to the Earl of Ducie, chairman of the committeee of the National Rifle Association. The average number of men sleeping in camp, from the 6th to the 18th of July inclusive, was 3,009, whilst the average number treated daily, in and out of hospital, was 4.68, or something like 1.50 per thousand only. There were two slight cases of lead splashing, two of rheumatism, and two men suffered slightly from exposure to the sun. The only serious case was one of pneumonia in a man of the 19th Foot, but this was not owing to camp influences. All the other men treated were for trivial complaints, not attributable to camp life. The sickness, indeed, was less than it would have been in the same number of men under the ordinary circumstances of existence. The sanitary regulations of the camp were undeniably good.

STATISTICS OF DRUGS.

FROM a bulky official report, dealing with the subject of the trade and commerce of this country, we glean some statistical information relative to our exports of drugs; and the most salient points of this information may be epitomised for the readers of this JOURNAL. In the first place, as to opium, the statistics take us back to the year 1840, when the exports of opium from the United Kingdom were 35,848 lbs. The opium trade, however, is liable, from some reason or other, to very considerable fluctuations. Thus, in the year 1843, the amount exported was 320,947 lbs.; and it will be perceived what a large increase this is upon the previously named amount. Again, in 1847, the exports of opium had declined to 68,521 lbs., and, not to detail the fluctuations further, it may be stated that, while the annual exports never appear to have reached the large total of 1843, they were in 1870, 150,414 lbs., which may be considered as a fair average year. As indicative of the sterling value of these exports, it may be mentioned that, in 1856, they amounted to the sum of £38,609; in 1861, to £233,305; and, in 1870, £196,165. In the Board of Trade returns for the six months ending June last, we are unable to find any reference whatever to opium, so that it is impossible to see how the trade has been carried on this year, and whether it has increased or the reverse. The statistics, however, which we have quoted, are interesting, as showing how the exports of opium have fluctuated during recent years. With regard to goods classed in the statistical returns, under the head of "drugs and chemical products unenumerated", we find that there has been a decided increase in the exportation of such articles from this country. In the year 1840 the amount of those exports, in sterling value, was £142,902, while ten years later, in 1850, they had increased to £352,471. Subsequently the augmentation in this trade has been very remarkable. In the year 1870, just thirty years after our first quotations, the computed value of the export of "drugs and chemical products unenumerated" was no less than £1,382,786; and comparing this sum with that of 1840, it will be seen that this is quite a modern trade, which has risen to its present importance comparatively within the past few years. A still more extraordinary fact connected with this branch of trade is that the export of these goods, for the six months ended June of the present year, amounted to no less a sum than £1,016,011; so that if the trade continues to be carried on thus actively, we may safely say that the exports of these goods will be far larger this year than they have ever been before. Another commodity referred to in the volume of statistics under notice, is Peruvian bark. Like nearly all the other articles of a similar character, the exports of this article show a considerable increase. In the year 1856, Peruvian bark was exported from this country to the amount of 9,796 cwts.; in 1868, the exports had increased to 16,736 cwts.; while in the six months ended June of the present year, the quantity exported was 20,554 cwts. The increase here shown in the exportation of Peruvian bark is very considerable, and affords evidence how greatly the trade has progressed of late. With regard to the sterling value of the exports of this article, the sum, in 1856, was £110,695; in 1868, £165,129; while in the first six months of 1874, it was no less than £235,536.

ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School came to a termination on the 3rd instant; Dr. H. M. Leckler, of Her Majesty's Indian Medical Service, obtaining the first place, and gaining the Herbert Prize. Forty-five gentlemen were recommended for commissions in the several branches of the Naval and Military Medical Services.

LIBERALITY OF THE GRAPHIC NEWSPAPER.

THE blank monotony of the walls of the long corridors of the Victoria Hospital, at Netley, has recently been greatly relieved by the suspension along them of numerous large engravings in gilt frames. The subjects have been well selected, and are generally such as are likely to interest particularly the inmates of a royal military hospital. We are informed that the whole series, glazed and framed as they are, were sent as a gift to the hospital by the proprietors of the *Graphic* newspaper. A remarkable indication of the fondness of soldier-patients for having pictures about them, was shown a short time ago, on the return of the *Victor Emmanuel* hospital-ship from the West Coast of Africa. Every available space on the hospital-deck was covered by woodcut engravings, taken from some of the illustrated newspapers which had been sent out by friends at home to the Coast. It was satisfactory to see that this source of relaxation and amusement—we may add, of information also—had not been objected to; a martinet of the old school would certainly not have permitted it.

THE PECULIAR PEOPLE.

THOMAS HINDS, a member of this sect, was lately charged at the Woolwich Police Court with the manslaughter of his child, Joseph Hinds, aged two years, by neglecting to provide it with proper remedies and attendance during its illness. On the previous day, the coroner's jury had returned a verdict of manslaughter against him; the evidence of Dr. Sharpe having satisfied them that, if the child had had the ordinary attendance of a medical man, it would probably have recovered. The child was ill for three weeks, and in frequent convulsions; but the parents, following the practice of the Peculiar People, who consider that to call in a medical man shows a want of faith in God, sent for another of the elders, named Hurry, who anointed it with oil, and prayed over it. A *post mortem* examination showed that death resulted from pleurisy and pericarditis. The prisoner, who said that all he had done was for the glory of God, was then committed for trial, bail in £100 being taken for his appearance at the next session of the Central Criminal Court. An opinion was expressed by the Bench that Hurry, one of the elders of this sect of monomaniacs, ought to be called up for judgment.

TRICHINOSIS IN GERMANY.

LAST week, there were several patients in the Charité Hospital in Berlin, suffering from trichina in consequence of eating raw ham. One case was fatal. The disease is also reported to have attacked a large number of persons in the villages of Gratzungen, Bliedungen, Trebra, Etzelsroda, Pützlingen, Gross-Wechsungen, Forstham, and Königsthal, and the town of Nordhausen, in consequence of the use of raw pork. In Nordhausen alone, there were no fewer than forty-three cases.

IRELAND.

THE Irish Local Government Board has just presented its report for the year 1873. The report is an important and interesting document, containing a large amount of valuable information, which we hope to notice more in detail.

AT a late meeting of the Grand Jury of Mullingar, a retiring allowance, equivalent to two-thirds of his late salary, was unanimously allowed to Dr. Joseph Ferguson, surgeon to the county infirmary and gaol for a period of nearly fifty years.

AT a late meeting of the guardians of the Dungarvan Union, it was resolved that the salaries of each of the dispensary medical officers of the union should be increased by £20 *per annum*. Dr. Taylor, medical officer of Ferns Dispensary, county Wexford, having resigned from ill-health, has been recommended a retiring allowance of £50 yearly. Dr. McGreevy, of the Drogheda Union, having resigned, will receive a superannuation allowance to the amount of £50 *per annum*.

UNIVERSITY OF DUBLIN.

THE Anatomical Museum, which is at present being constructed in the park attached to Trinity College, will, when completed, be a very extensive building of its kind. It will measure a hundred and forty feet long by forty feet wide; and the interior will be divided into three compartments, each intended for a separate class of anatomical preparations. The amount voted by the board for the completion of the museum is £9,000, and the building is expected to be finished in twelve months from this time.

LIMERICK LUNATIC ASYLUM.

AT a meeting last week of the Governors of this institution, it was proposed to erect additional accommodation for the increasing number of patients. Want of funds, however, at present prevents this suggestion from being carried out; but a special meeting has been convened for a future day to take the matter into consideration.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS AND FEMALE MIDWIFERY PRACTITIONERS.

A LADY, who has for some time acted as lady superintendent for one of the Dublin Hospitals, has applied, under the new bye-laws of the Irish College of Physicians, for permission to be examined for the licence to practise midwifery and nurse-tending. The application has been granted. The last female licentiate in midwifery, was Mrs. Cormack, who passed in the year 1696 or 1697.

APOTHECARIES' HALL IN IRELAND.

AT the annual meeting of the General Council of this institution, held in pursuance of the statute of incorporation, on August 1st, the following gentlemen were elected office-bearers for the ensuing year. *Governor:* John Ryan. *Deputy Governor:* Charles Frederick Moore. *Court of Directors and Examiners:* Edward Howard Bolland, Thomas Collins, Arthur Harvey, Charles Holmes, Charles H. Leet, Robert Montgomery, Henry P. Nolan, Jerome O'Flaherty, Edward J. O'Neill, George B. Owens, James Shaw, John Shea, George Wyse. *Representative in the General Medical Council:* Charles H. Leet.

THE RIGHTS OF DUBLIN GRADUATES.

ON this subject, a correspondent in Dublin writes as follows. The information is derived from the *Dublin University Calendar*.

"The right to representation in Parliament by two members was granted, in 1613, by James I. By the Act of Union in 1800 (40 George III, c. 38), the number of representatives was reduced to one. By the Irish Reform Bill (2 and 3 William IV, c. 88), the right to elect two members was restored. The right to vote was originally confined to fellows and scholars of Trinity College. By the Reform Act, it was extended to every one who should obtain the degree of Master of Arts or any higher degree, or a scholarship or fellowship, subject to the provisions for registrations, that is, to the payment of one pound *per annum* or five pounds for life. No person is entitled to vote by reason of a degree of purely honorary nature. By the Act 31 and 32 Victoria, c. 112, sec. 33, the registrar of parliamentary electors is required to place the names of duly qualified electors on the roll of parliamentary electors, "without any payment whatsoever", but no "person shall be entitled to vote at any election . . . . unless his name shall have been upon the books of the University for a period of not less than two months previous to such election". By the Act 24 and 25 Victoria, c. 53, any elector of the Universities of Oxford, Cambridge, or Dublin, may vote by "paper, nominating a proxy to vote on his behalf at any parliamentary election for the University."

Another correspondent writes: I am happy to inform your correspondent that the fee for registration as an elector for the University of Dublin has, in company with the stamp duty on degrees, departed this life. The degree of Master in Surgery has only been raised to the rank of a "higher degree" within the past six years; so I suppose that your correspondent was unaware of the fact of its conferring a vote.

A third correspondent says: If your correspondent, who made some remarks on the above subject in the last number of the BRITISH MEDICAL JOURNAL, had taken the trouble to procure a *Dublin University Calendar*, and from it found out what our rights really are, instead of writing "I paid this or that", or "I forget, etc.", he would, I have no doubt, save a lot of confusion, and perhaps enlighten a number of graduates on the subject.

DUBLIN RIVERS AND SANITARY AUTHORITIES.

THE rivers in Dublin seem to be a perpetual source of discord between the sanitary authorities of that city and its neighbourhood. At a meeting of the Board of Guardians of the North Dublin Union, attention was called to the state of the river Tolka, which has become a nuisance to the inhabitants of Clontarf and the northern portion of the city. The relieving officer, who appears to be the inspector of nuisances, stated he had called upon the agent of the Mountjoy estate (through which the river passed) with reference to the matter; the agent told him Cardinal Cullen owned part of the river, and, evidently, both of these landlords think (and properly think) they are not the sanitary authorities. A guardian stated that the state of the river was intolerable, and that typhoid fever prevailed along its banks, but that "between the corporation and the guardians of the union, and the commission of the Clontarf township, the matter had been handed about for a long time, and nothing done." A great deal of talk ensued, and we are finally informed, by the reports in the Dublin papers, that "the subject then dropped". This is extremely characteristic of a sanitary authority. "The subject then dropped", and it is a remarkable fact that the guardian, who spoke of the matter being handed about between the three authorities, is, in fact, a member of all these three authorities himself. Can anything better illustrate the absurdity of the conflicting jurisdiction of sanitary authorities? A requisition to the Lord Mayor of Dublin is being signed, calling upon him to convene a public meeting of the citizens, to consider the present state of the Liffey and the main drainage of the city. We are glad to find the citizens at last making an effort to drive the authorities into doing something to improve the sanitary state of the city. We presume the Irish Local Government Board are awaiting the passage of the Public Health Bill before taking action in the matter of the Liffey nuisance.

THE ANNUAL MEETING.

EVERYTHING promises to make the meeting at Norwich, next week, one of the most successful in the annals of the Association.

A large number of members have already intimated their intention of taking part in the proceedings; and, in addition to the distinguished foreigners whose names we have mentioned in earlier notices, we hear that Dr. Marion Sims of New York, Dr. Levis and Dr. Irwin of Philadelphia, Dr. Magnan of Paris, and Dr. Mierzejewski of St. Petersburg will be present.

The facility with which Norwich can be reached from all parts, the graceful courtesies extended to visitors at recent scientific congresses held in that ancient city, the importance of the scientific communications announced, all tend to ensure for the forty-second annual meeting of our Association the most complete success.

THE NAVAL MEDICAL SERVICE: THE RECENT COURT-MARTIAL.

MR. THORN, of 87 Harrow Road, whose pupil Mr. H. B. Harrison formerly was, writes to bear unsolicited testimony to his ability, and to his gentlemanly and able professional conduct during his whole student career. We may add that Mr. Harrison was distinguished in his studies, and was a favourite pupil at his school, taking honours in Practical Anatomy and Midwifery, and filling also the office of Prosector in Anatomy. Mr. Thorn expresses the desire that, at the meeting of the British Medical Association at Norwich, means will be taken by some eminent member of the Association of laying the case before the meeting, and of eliciting a strong expression of opinion on the subject. We have received from various sources strong expressions of sympathy with Mr. Harrison. There can, we imagine, be no doubt that, when each new batch of students furnishes its immediate contingent of resignations, and when a large proportion of young officers are only kept in the service by main force, and by such expedients as refusal to accept resignations, abrupt orders to foreign stations, and when such scandals as the forced discharge of one young officer, under the influence of a letter from his solicitor, the advertisement of a reward of £10 in a colonial Hue and Cry for another, and the escape from the service by court-martial of a third, follow rapidly one upon another, it must be sufficiently evident that the naval medical service is in a bad way. The service is already much depleted in its ranks, and the dissatisfaction of the most distinguished senior officers with their present conditions of pay, promotion, relative rank, and retirement, are notorious. The extreme desire of young officers to escape from the service, almost as soon as they have had time to look round them after entering it, is a sign even more pressing of the necessity for reform. The details of the reforms for which the service asks have been already respectfully submitted to the First Lord by the deputation of the Parliamentary Bills Committee, which was fully instructed by extensive correspondence with all ranks of the service. We cannot doubt that the urgent and serious nature of the present state of affairs is fully present to the minds of their lordships; and, without seeking to fathom the office-secrets which envelope the deliberations of the Admiralty on the subject, or to discuss the rumours which are afloat, we shall content ourselves with expressing the hope that the suggestions laid before their lordships will be discussed without prejudice, as they were submitted respectfully, and after anxious and complete deliberation. We shall venture to assure their lordships that, while we have received adhesions from all sides to those suggestions, we have received no complaint in respect to them. They have since been reprinted and very widely circulated, without producing any other than favourable comment so far as we are aware. Each suggestion bore with it the reasons on which it was grounded; and nothing more was asked than equity seemed to demand, or than, we trust, their lordships will be disposed to grant.

ASSOCIATION INTELLIGENCE.

NOTICE OF SPECIAL GENERAL MEETING.

NOTICE is hereby given that, in accordance with Law 20, a Special General Meeting of the Association will be held at Norwich on Thursday, the 13th day of August next, immediately on conclusion of the Address in Surgery, for the purpose of considering the resolutions necessary for the incorporation of the Association.

FRANCIS FOWKE, *General Secretary.*

37, Great Queen Street, London, July 9th, 1874.

BRITISH MEDICAL ASSOCIATION:
FORTY-SECOND ANNUAL MEETING.

THE Annual Meeting of the British Medical Association will be held at Norwich, on Tuesday, Wednesday, Thursday, and Friday, August 11th, 12th, 13th, and 14th, 1874.

President—Sir WILLIAM FERGUSSON, Bart., F.R.S., Surgeon to King's College Hospital, London.

President-elect—EDWARD COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital.

An Address in Medicine will be given by J. RUSSELL REYNOLDS, M.D., F.R.S., Physician to University College Hospital.

An Address in Surgery will be given by W. CADGE, Esq., Surgeon to the Norfolk and Norwich Hospital.

An Address in Obstetric Medicine will be given by JAMES MATTHEWS DUNCAN, M.D., F.R.S.Edin., Lecturer on Midwifery and Diseases of Women and Children in the School of Medicine, Edinburgh.

The business will be transacted in four Sections, viz.:—

SECTION A. MEDICINE.—*President:* Dr. Eade, Norwich. *Vice-Presidents:* Dr. Sydney Ringer, London; Dr. Durrant, Ipswich. *Secretaries:* Dr. Bradbury, 59, Corpus Buildings, Cambridge; Dr. Lowe, King Street, King's Lynn.

SECTION B. SURGERY.—*President:* Sir James Paget, Bart., F.R.S., London. *Vice-Presidents:* T. W. Crosse, Esq., Norwich; Dr. Macnamara, Dublin. *Secretaries:* F. Worthington, Esq., Lowestoft; Reginald Harrison, Esq., 38, Rodney Street, Liverpool.

SECTION C. OBSTETRIC MEDICINE.—*President:* Dr. Churchill, Dublin. *Vice-Presidents:* Dr. W. S. Playfair, London; Dr. Steele, Liverpool. *Secretaries:* Dr. Edis, 23, Sackville Street, London; F. Image, Esq., Westgate Street, Bury St. Edmunds.

SECTION D. PUBLIC MEDICINE.—*President:* W. H. Michael, Esq., London; *Vice-Presidents:* Dr. Bateman, Norwich; Dr. Ransome, Bowden. *Secretaries:* Dr. Bond, Gloucester; Dr. Leech, Manchester.

The Honorary Local Secretaries are:

Dr. J. B. PITT, Norwich.
H. S. ROBINSON, Esq., Norwich.
Dr. BEVERLEY, Norwich.

TUESDAY, *August 11th.*

9.30 A.M.—COMMITTEE ON QUALIFICATION IN STATE MEDICINE.
10.30 A.M.—CATHEDRAL SERVICE. Sermon by the Rev. Canon Heavyside.
1 P.M.—MEETING OF COMMITTEE OF COUNCIL.
3 P.M.—MEETING OF THE COUNCIL, 1873-74.
8. P.M.—GENERAL MEETING—President's Address.

BUSINESS: President resigns Chair to President-elect; Vote of Thanks to ex-President; President's Address; Report of Council; Election of General Secretary.

WEDNESDAY, *August 12th.*

9.30 A.M.—MEETING OF COUNCIL, 1874-75.
11.30 A.M.—SECOND GENERAL MEETING.
11.30 A.M.—ADDRESS IN MEDICINE, by Dr. RUSSELL REYNOLDS, F.R.S.
2 to 5 P.M.—SECTIONAL MEETINGS.
9 P.M.—SOIRÉE AT ST. ANDREW'S HALL.

THURSDAY, *August 13th.*

9 A.M.—MEETING OF THE COMMITTEE OF COUNCIL.
10 A.M.—THIRD GENERAL MEETING—Reports of Committees.
11 A.M.—ADDRESS IN SURGERY, by WILLIAM CADGE, Esq.
2 to 5 P.M.—SECTIONAL MEETINGS.
6.30 P.M.—PUBLIC DINNER AT ST. ANDREW'S HALL.

FRIDAY, *August 14th.*

10 A.M.—ADDRESS IN OBSTETRIC MEDICINE, by Dr. MATTHEWS DUNCAN.
11 A.M.—SECTIONAL MEETINGS.
1.30 P.M.—CONCLUDING GENERAL MEETING.

RECEPTION OF MEMBERS, AND GENERAL ARRANGEMENTS.

The Assembly Rooms comprise the Reception-Room, the Annual Museum, the Medicine Section, an Office for Local Secretaries and the Secretaries of Committees, an Inquiry Office, a Reading and Writing Room, a Luncheon Room, and Lavatories.

The Central Hall of the Assembly Rooms forming the Reception-Room will be opened at 9 A.M. on Monday, August 10th, and on the following days at 8 A.M., for the issue of tickets and the daily journal to members.

Gentlemen are requested to register their names and addresses in the Book provided for that purpose at the Reception-Room as soon after their arrival as possible.

Provision will be made for the receipt and postage of letters, the receipt and delivery of telegrams, and for the care of parcels, umbrellas, etc.

A Refreshment Buffet will be provided in the Reception-Room.

The Editor of the JOURNAL and the General Secretary will have a room at Mr. Noverre's Rooms, adjoining the Reception-Rooms.

Hotels.—The following are the chief Hotels: "The Norfolk", in St. Giles's Street; "The Royal", in the Market Place; "The Castle", on the Hill; "The Maid's Head", Wensum Street, Tombland; "The Rampant Horse", Rampant Horse Street; "Mortimer's Hotel", in St. Giles's Street; "The Bell", on the Hill; etc.

Private Lodgings.—For Private Lodgings, and full particulars respecting the Hotels, application should be made to Mr. Horace Turner, Upper St. Giles's Street, Norwich, Honorary Secretary to the Reception Committee.

Soirée.—A *Soirée* will be given in St. Andrew's Hall, Norwich, on Wednesday evening, August 12th, at 9 P.M. Music, Scientific Exhibitions, and Paintings of the Norfolk and Suffolk School of Artists, will form part of the entertainments.

Public Dinner.—The Annual Dinner will take place at Saint Andrew's Hall on Thursday, August 13th, at 6.30 P.M.

A Déjeûner will be given to the Members of the Association and their friends by J. J. Colman, Esq., M.P., on Friday, August 14th, from 5 to 8 P.M., in the Grounds of Carrow House.

ANNUAL MUSEUM.

The seventh annual Museum of the British Medical Association will be held at the Assembly Rooms, and will be open daily from 10 A.M. till 6 P.M., on August 11th, 12th, 13th, and 14th, for the exhibition of the following objects.

1. Latest inventions in medical and surgical instruments and appliances of all kinds.
2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids.
3. General pathological specimens; with photographic models, drawings, etc., illustrating disease.
4. Urinary calculi; with drawings or diagrams of urinary disease, and of operations on the urinary organs.
5. Drawings, diagrams, or models illustrating the ventilation of hospitals and private dwellings.
6. Microscopic pathological specimens.

N.B.—Specimens of disease and calculi which have been exhibited at former meetings cannot be received on this occasion.

PLACES OF INTEREST.

The following Places of Interest in the Neighbourhood of Norwich may be conveniently visited by members and ladies during the meeting: Yarmouth; Lowestoft; Cossey Hall; Caistor, by Norwich; Thetford; Wymondham; Geological Stations at Bramerton, Thorpe, Horstead; Botanical Stations at Horsford and St. Faith's. Hunstanton and Sandringham can also be visited from Norwich in a day.

In Norwich, amongst the objects of most interest are the Cathedral, which is open daily; forty-two churches, those most worthy of a visit being St. Peter Mancroft; St. Giles; St. Stephen; St. Andrews; St. John, Maddermarket; St. Gregory; St. Michael at Plea; St. Michael at Coslany; St. James; and St. Peter-per-Mountergate; etc. Amongst the ancient buildings, are St. Andrew's Hall, the Guildhall, the Castle (now the County Gaol), St. Helen's Hospital, the Old Bridewell (now a tobacco manufactory), Bishop Hall's Palace (now the Dolphin Inn); the Old Well in St. Laurence, recently restored; and the remains of the City Walls, standing in various places. Mousehold Heath is a short distance from the city.

During the meeting, the following places will be open to members of the Association on presenting their cards of membership: The Public Library; the Literary Institution; the Free Library; the Norfolk and Norwich Hospital; the Eye Infirmary; the Children's Infirmary; the Bethel (a charitable institution for lunatics); St. Helen's Hospital (a charitable institution for decayed tradesmen); the School for the Indigent Blind; the Norfolk and Norwich Museum; the Guildhall, with the City Plate; the Castle (now the County Gaol); the City Gaol; the County Asylum; the Waterworks; the Sewerage Works and Farm; J. J. Colman's Works; Bolingbroke's, Clabburn's, and Willett's; the Yarn, Power-loom, and other Factories; Barnard and Bishop's Ironworks, and many others.

The hours at which these places can be visited will be published in the Daily Journal.

EXCURSIONS.

On Friday afternoon, parties of ladies and gentlemen, accompanied by gentlemen able to give information, will be formed to visit—

1. The Cathedral (where a paper will be read), and other places of antiquarian interest will be afterwards visited.
2. The Waterworks, Filtering Beds, and Reservoirs; the Sewerage Works and Farm. Bishop Hall's Palace (now the Dolphin Inn). The remains of the City Walls at St. Benedict's Gates, Chapel Field, and Ber Street Gates, are on the route of this excursion.
3. Cossey Hall and Park, the seat of Lord Stafford.

J. J. Colman, Esq., M.P., kindly invites the members of the Association to a *déjeûner* in the Grounds of Carrow House.

All who intend to accept Mr. Colman's invitation are particularly requested to notify it (and whether they will be accompanied by a lady) to Mr. W. Bransby Francis, St. Clement's, Norwich.

On Saturday there will be excursions for members of the Association and ladies—

1. To Wells, Holkham Hall and Park, the Danish Camp at Warham, Binham Priory, and Walsingham Abbey.
2. To Swaffham, Castleacre Priory, Houghton Hall, and Raynham Hall.—Robert Leeds, Esq., has invited members joining this excursion at the Ruins of Castle Acre.
3. To Aylsham Church, Blickling Hall, Felbrigg Park, Beeston Hills, and Cromer, returning by Gunton Park.—Lady Lothian kindly invites members who join this excursion to a luncheon at Blickling Hall. Mrs. Ketton kindly offers refreshments at Felbrigg Hall; and Mr. Prangley tea at Aylsham as the party returns.
4. To Fritton Broad, joining the next party.
5. To Herringfleet and Somerleyton Hall, proceeding to Lowestoft and Yarmouth, or returning to Norwich.—Lady Crossley kindly invites members joining this excursion to a luncheon at Somerleyton Hall.
6. A Yacht Excursion to Burgh-Castle; and, if wind and tide serve, on to Yarmouth.—The party for this excursion must be limited to the accommodation afforded by the yachts at the disposal of the Excursion Committee.
7. To Bungay and Mettingham.—E. B. Adams, Esq., kindly invites members visiting Bungay to a luncheon.

8 and 9. Geological and Botanical Excursions will be arranged if requested.

N.B. The numbers must be limited for all these excursions, and for most of them special arrangements have to be made for carriages to meet trains at some distances from Norwich; therefore, applications for tickets cannot be received after five o'clock on Tuesday, the 11th August. Members wishing to join any of these excursions are particularly requested to communicate, without delay, with the Honorary Secretary of the Committee,

W. BRANSBY FRANCIS, St. Clement's, Norwich.

PAPERS.

The following papers have been promised.

Ogle, J. W., M.D. 1. Cases of Tumour of the Cerebellum; 2. Cases of Adenomatous Tumours within the Thorax.

Fothergill, J. Milner, M.D. The Systemic Indications of Chronic Bright's Disease.

Gowers, W. R., M.D. Cases of Convulsions from Organic Brain-Disease.

Ferrier, D., M.D. The Localisation of Function in the Brain.

Anningson, Bushell, M.B. On the Ætiology of Infectious Diseases.

Thompson, J. Ashburton, Esq. General Remarks on the Interna Administration of Free Phosphorus.

Bradbury, J. B., M.D. Notes of Six Cases of Hydatids of the Liver treated by Puncture.

Ross, James, M.D. On the Action of Mercury.

Hicks, J. Braxton, M.D., F.R.S. On the Adaptation of the Galvanic Cautery to Gynæcology.

Wright, Frederick W., M.D. On Decollation as a Mode of Delivery in Arm-Presentations.

Fox, Cornelius B., M.D. Water-Analysis; as it should and as it should not be performed by the Medical Officer of Health.

Smart, W. R. E., M.D., C.B., Inspector-General of Hospitals and Fleets. On the Relative Frequency, the Causes, and Modes of Suicidal Attempts in the Navy and Army.

Baker, J. Wright, Esq. Case of Lithotomy: the Nucleus of the Stone being a Broken Piece of Elastic Catheter.

Duncan, J. Matthews, M.D. Laboratory Note: On the Tensile Strength of the Fœtus.

Cormack, Sir John Rose, M.D. Diphtheritic Paralysis.

Cormack, Sir John Rose, M.D. Successful Resection of the Shoulder-joint in Case of Gunshot Wound.

Althaus, J., M.D. On some Forms of Spinal Exhaustion, and their Treatment by the Constant Galvanic Current.

Drysdale, Charles R., M.D. On Dysmenorrhœa.

Braidwood, P. M., M.D. On Cerebro-Spinal Concussion.

Clapperton, James, Esq. Maternal Impressions.

Buchanan, George, M.D. Some Points in the Anatomy and Surgery of Talipes Varus.

Barwell, Richard, Esq. A New Method of treating Chronic Strumous Synovitis, more especially of the Knee.

Drysdale, C. R., M.D. When, and for how long, should Mercury be used in the treatment of Syphilis?

Chambers, T., M.R.C.P. 1. A Case of Complete Inversion of the Uterus, profuse *Post Partum* Hæmorrhage, and rapid Death of the Patient. 2. A Case of Retroflexion of the Gravid Uterus: Retention of Urine: Vesical Hæmorrhage: Transfusion with Lamb's Blood: Death.

Edis, Arthur W., M.D. The Rectum in its relation to Uterine Disease.

Dowse, T. S., M.D. 1. The Treatment of Acute Rheumatism. 2. A Case of Tumour originating from the Dura Mater of the Spinal Cord in the Cervical Region, producing General Paresis.

Cormack, Sir John Rose, M.D. Recovery from apparent Death induced by the Inhalation of Chloroform: a Case described principally with a view to show the Therapeutic Value of Inversion of the Body when there is Syncope from Cerebral Anæmia.

De Méric, Victor, Esq. Hereditary Syphilis in the Adult.

Clover, J. T., Esq. New Apparatus for Administering Ether, etc., with or without Nitrous Oxide.

Croft, J., Esq. Subperiosteal Excision of the Hip-joint.

Lund, Edward, Esq. On Incision *versus* Excision of the Knee in Children.

Manby, F. E., Esq. The Treatment of Loose Cartilages.

Bradley, S. M., Esq. On the Mode of Employing Pressure in Cases of Chronic Inflammatory Enlargement.

Mackintosh, Angus, M.D. 1. The Cause, Mode of Propagation, and Non-Contagious Nature, of Enteric Fever. 2. A New System of Ventilating Sewers and Drains.

Madden, T. More, M.D. 1. A Case of Rupture of the Uterus during Labour, in which the patient recovered. 2. A remarkable Case of Complex Labour.

Péter, Dr. (Paris). 1. Accidents that may happen to Pregnant Women Suffering from Disease of the Heart. 2. On the Vagus Nerve. 3. On Tobacco Poisoning. 4. On the Plessigraph.

Voisin, Dr. Auguste (Paris). The Pathological Physiology of Lesions of Speech in the General Paralysis of the Insane.

Sims, J. Marion, M.D. 1. Nélaton's Method of Resuscitation from Chloroform Narcosis. 2. On the Management of the Pedicle in Ovariotomy.

Tait, Lawson, Esq. Operations for Fibroma of the Uterus.

Thompson, James, M.B. Leamington Spa; Climate; and Mineral Springs.

Humphry, G. M., M.D., F.R.S. 1. The Treatment of Wounds. 2. A Case of Double Popliteal Aneurism.

Rumsey, H. W., M.D., F.R.S. The Correlation of Sick Poor Relief and Public Health Administration.

Haviland, Alfred, Esq. The Geographical Distribution of Disease within the area of the combined Sanitary Authorities of the Counties of Northampton, Leicester, Rutland, and Bucks.

Bond, Francis T., M.D. 1. On a New Form of Disinfectant; 2. On an Improved Form of Dry Closet; 3. On a New Method of dealing with House-Slops in Rural Districts.

Steele, A. B., L.K.Q.C.P. On the Treatment of Mechanical Dysmenorrhœa and Chronic Induration of the Cervix Uteri.

Ringer, Sydney, M.D. On the Action of Croton-Chloral in certain forms of Megrim.

Jagielski, V. A., M.D. On Spirometry; and a new Spirometer or Pneumometer.

McKendrick, J. G., M.D. (and Dewar, James, Esq.) On the Physiological Action of the Chinoline and Pyridine Series of Bases.

Tufnell, Jolliffe, Esq. Case of Internal Aneurism.

Seguin, Edward, M.D. On the Uniformisation of the Instruments, Scales, and Tables of Clinical Observations.

Dolman, A. H., Esq. A Case of Vesical Calculus; Novel Method of Diminishing the Size of the Stone; Expulsion per Urethram.

Mackenzie, Morell, M.D. The Etiology of Endemic Goitre, with Special Reference to its Geological Bearings.

Wright, R. Temple, M.D. A Collection of Indian Calculi.

Drysdale, C. R., M.D. On the Influence of Tobacco on Public Health.

Higgens, Charles, Esq. On Muscular Asthenopia.

Ransome, Arthur, M.D. Some Observations on the Mechanism of Cough.

Eade, Peter, M.D. (Norwich). A Disease of Carpenters.

Barnes, E. G., M.B. (Eye). The Long Forceps, the Short Forceps, and the Vectis.

Prangley, T., Esq. (Aylsham). On Diphtheria.

Allen, Joseph, Esq. (Norwich). Notes on a Case of Gastrotomy.

Beverley, Michael, M.D. (Norwich). Statistical Records of the Surgical Operations performed during the past ten years in the Norfolk and Norwich Hospital.

Beverley, Michael, M.D. (Norwich). Hospital Hygiene, illustrated by references to the Norfolk and Norwich Hospital in the past, present, and future.

Skrimshire, John, M.D. (Holt). On Preventive Surgery in its Relation to Injuries from Agricultural Implements.

Amyot, Thomas E., Esq. (Diss). Cases of Traumatic Diabetes: with some Remarks as to Treatment.

Shaw, James, M.D. (Thorpe). Several Cases of Brain-Disease.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to one of the above-named officers *on or before the 1st of August.*

No paper must exceed *twenty* minutes in reading; and no subsequent speech must exceed *ten* minutes.

All speeches at the General Meeting must not exceed *ten* minutes each.

FRANCIS FOWKE, *General Secretary.*

General Secretary's Office, 37, Great Queen Street, W.C.,
June 25th, 1874.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ANNUAL MEETING.

THE fourth annual meeting of this Branch was held at the Town Hall, Cardiff, on June 30th, at 1 P.M. Luncheon was hospitably provided for the members by the President-elect, Dr. Edwards, on their arrival at his house.

Dr. HEARDER, the retiring President, introduced the President for the ensuing year, Dr. W. T. EDWARDS, who, on taking the chair, briefly addressed the members present.

Report of Council.—Dr. SHEEN, one of the Honorary Secretaries, read the Report of Council, from which it appeared that the Branch had increased in numbers from 91 in 1871 to 142. Seventeen new members had joined during the year. The statement of accounts showed a balance in hand of £14 : 8 : 9.

New Members.—The following gentlemen were declared elected: D. Havard, Esq., Newport, Pembrokeshire; George A. Davies, Esq., Newport Infirmary, Monmouthshire.

Meetings of the Branch.—It was decided to hold the next ordinary meeting at Aberdare, and the next annual meeting at Abergavenny.

Officers and Council.—The following were elected:—*President-elect:* S. H. Steel, M.B., Abergavenny. *Members of Council:* H. J. Paine, M.D.; J. Russell, Esq.; W. Taylor, M.D.; D. Yellowless, M.D. *Representatives in the General Council:* P. R. Cresswell, Esq.; W. T. Edwards, M.D.; T. D. Griffiths, Esq.; J. G. Hall, Esq., W. Taylor, M.D.; D. Yellowlees, M.D.; and A. Sheen, M.D. *Honorary Secretaries:* A. Davies, Esq.; and A. Sheen, M.D.

The meeting was made entirely a social gathering. Through the kindness of J. McConnochie, Esq., C.E., Engineer to the Bute Docks, the members were conveyed over the Bute Docks and the magnificent new Basin now nearly completed; as also over the new tower recently added to Cardiff Castle, the internal decorations of which are well worth seeing.

Dinner.—Fifty-three gentlemen and visitors afterwards sat down to dinner at the Cardiff Arms Hotel.

Exhibition of Instruments, etc.—A choice display of new instruments and drugs, and of glycecols, pills, and miniature dispensaries, were exhibited during the day by Messrs. Ferris and Co. of Bristol, and Messrs. H. and T. Kirby and Co. of Newman Street, London.

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE thirty-first annual meeting of this Branch was held at Milverton on Thursday, July 23rd, at St. Michael's, the residence of the President, H. W. RANDOLPH, Esq. Twenty members, besides visitors, were present. After partaking of luncheon and viewing the gardens and grounds around the house, the party assembled in the library at 2.30 P.M.

The retiring President, Mr. GILLETT, in an appropriate speech, addressed the meeting before resigning the chair to Mr. RANDOLPH.

The PRESIDENT, having taken the chair, delivered a short address, which he concluded by expressing the great pleasure it gave him to receive the meeting at his house, and extending to all a most cordial welcome. He then proposed a vote of thanks to the retiring President, Mr. Gillett, which was seconded by Mr. ALFORD, and carried by acclamation.

The Secretary produced letters of regret from six members who were unable to attend, and the President read a telegram he had received from Mr. Garland, of Yeovil to the same effect.

Report of Council and Treasurer's Accounts.—The Secretary read the Report of Council as follows.

"1. Before reporting on the proceedings of the past year, the Council think it right to advert for a moment to the circumstance of the Branch being assembled in the town of Milverton. Twenty-two years have come and gone since a similar meeting was held in this place. It was in the year 1852 that the same gentleman—whom the Branch has the good fortune at this moment to see presiding over it—then, as now, evidenced the warm interest he took in the Association by accepting the office of President for that year. It was at his invitation, and under his own hospitable roof, that one of the pleasantest meetings of which the oldest members can cherish any recollection, then took place. The Council feels sure that they only express the wishes of all the members of the Branch, by now offering him their thanks for the earnest and lively part which he has never failed during these long years to take in promoting the interests of the profession in general; and of this Branch in particular.

"2. At the two intermediate meetings which have been held as usual since the last annual meeting, the following questions and cases or papers were brought forward and discussed.

"I. Is Club Practice conducive to the interest and welfare of the profession?

"II. What is your opinion as to the relative value of Chloral Hydrate and Opium?

"I. A Case of Acute Inversion of the Uterus. By Mr. G. R. Norris.

"II. On Certain Shortcomings in the Practical Working of the 'Public Health Act, 1872'. By H. J. Alford, M.D.

"III. Cases of Lithid Acid Calculus. By Mr. F. J. C. Parsons.

"IV. A Case of Salivation during Pregnancy. By Mr. F. J. C. Parsons.

"3. The question proposed at the autumnal meeting, viz.—'Is club-practice conducive to the interest and welfare of the profession?'—attracted much interest, and elicited free and full discussion. A resolution in the negative having been passed, the subject was then referred to the Council, with a request that they would frame such rules as might appear to them appropriate with a view to preventing the abuse of clubs and provident societies, and that they would report the same to a general meeting of the Branch. The Council have now to report that they duly considered the subject at two of their meetings. They then sent a circular to every member of the Branch, asking for copies of rules of clubs, and inviting information and suggestions, and a notice to the same effect was inserted in the JOURNAL. The rules of about twenty societies were received, and were submitted to analysis. After further consideration, and with the special aid of a committee of their body which the Council appointed, four rules have been framed. These are embodied in annexed report of the Committee alluded to, which, having been adopted by the Council, they now present for the consideration of this meeting.

"4. The Council are happy to state that the Branch is in a perfectly sound and satisfactory state; the number of its members has rather increased during the year. There are now on its roll the names of fifty-four leading practitioners in West Somerset.

"5. The Treasurer's accounts, duly audited, are herewith presented, from which it will be seen that he holds a balance to the credit of the Branch of £6 : 3 : 8."

Club-practice.—The following report of the Committee appointed by the Council on 5th June, 1874, to draft rules having reference to the duties, pay, etc., of the medical officers of clubs and provident societies, was presented.

"The Committee, having met and considered the subject referred to them, found that there were four points specially requiring attention.

"First, they observed that clubs and provident societies have almost universally framed rules for their own protection, so as to exclude members earning wages under certain fixed standards (usually from 12s. to 15s. a week). It is manifestly just and desirable for the protection of the medical officers, and to prevent infringement on their private practice, that a limit should be placed at the other end of the scale defining those who may or may not be proper recipients of medical attendance, but no such rule has been found in any existing code.

"In the next place, they observed that in the majority of the older clubs there was no rule as to the medical examination of candidates; and that where such a rule existed, that there was not usually an appropriate fee allowed for this important service.

"Thirdly, they found that the subject of a payment for journeys required attention.

"Lastly, they observed that the rate of payment for the services of medical officers, was very variable and much below what it ought to be.

"Having regard to these points, your Committee have drafted the four following rules, which, if modified to meet local circumstances, and adopted by clubs and provident societies, they think would meet the main objections now existing in the minds of medical men to this class of otherwise essentially useful institutions.

"*Rules.*—1. That the right to demand medical attendance be limited to those whose earnings are not more than 30s. a week, or who, if not in active work, are not in possession of more than that amount weekly from all sources.

"2. That a fee of not less than half-a-crown (2s. 6d.) be paid by the club for the examination of each candidate seeking admission.

"3. That members residing at a distance beyond (say one mile) from some central point to be agreed upon, if requiring to be visited by the medical officer, to pay for journeys.

"4. That the yearly payment of each member to the medical officer be made to approach as nearly as possible to the 1d. a week of the provident dispensaries—a minimum of 4s. where the average wages of members in the club are under 20s. a week; the payment to be increased to 5s. where the average wages approach the 30s. limit.

"July 20th, 1874. (Signed) "W. M. KELLY, Hon. Secretary."

The second suggested rule as to an examination fee led to considerable discussion. Mr. Parsons thought the fee should be not less than 5s. or 7s. 6d. Dr. Mackay, Mr. Pearse, Mr. Prankerd, and others believed that 2s. 6d. was as much as would be tolerated by clubs in country districts. Mr. Olivey was of opinion that it was best to render the service without charge. Finally, it was proposed by Mr. PARSONS and seconded by Mr. ALFORD—"That the words in Rule 2 specifying the minimum amount of fee payable—namely, the words 'of not less than 2s. 6d.'—be omitted." On a show of hands being taken, Mr. Parsons' motion was declared to be lost.

After some further discussion, the report of the Council, together with the Treasurer's accounts and balance-sheet, were received and adopted.

A proposal that the suggested rules for clubs should be published in the local papers was put to the meeting and negatived; but, on the motion of Dr. MACKAY, seconded by Mr. MUNCKTON, the Secretary was instructed to send them, with an account of this meeting, as usual, to be inserted in the JOURNAL of the Association.

Representatives of the Branch in the General Council of the Association.—It was proposed by Mr. CORNWALL, seconded by Dr. MACKAY, and carried unanimously—"That the President (H. W. Randolph, Esq.) and John Prankerd, Esq., be the representatives of the Branch in the General Council for the ensuing year.

Honorary Secretary and Treasurer.—W. M. Kelly, M.D., was re-elected Honorary Secretary and Treasurer.

Place of Meeting for 1875, *and President-elect.*—It was resolved that George Cordwent, M.D. (Taunton), be President-elect, and that the annual meeting in 1875 be held at Taunton.

Intermediate Meetings.—It was resolved that there be held the usual intermediate meetings during the ensuing year, one in the autumn at Taunton, and another in the spring at Bridgwater.

Members of Council of the Branch.—It was resolved that the following, with the President, Past-President, President-elect, and Honorary Secretary, be the Council of the Branch for the ensuing year: H. J. Alford, M.D.; W. Liddon, Esq.; G. Mackay, M.D.; F. J. C. Parsons, Esq.; H. Alford, Esq.; and J. Prankerd, Esq.

Cases and Papers.—The PRESIDENT exhibited a baby, ten weeks old, presenting a very curious Congenital Deformity of its Right Leg and

Foot, supposed to have originated from a maternal impression. He read a short history of the case, and a discussion followed. He also read notes of a case of Intestinal Obstruction, and exhibited a very curious concretion, which had been voided, and which, in its section, showed a remarkable crystalline structure apparently of cholesterine. A number of interesting preparations were exhibited by the President, amongst the curiosities in which were some bones, believed to be genuine relics of Claudius Nero and of Cæsar's Jester, and of the latter he read a short history.

Mr. PARSONS read a carefully prepared paper on, and exhibited, the Suprarenal Capsules of a Case of Addison's Disease. A short discussion followed, which the arrival of the dinner hour unfortunately curtailed.

Dinner.—An excellent dinner was served at the hotel, to which a party of twenty-two sat down. The President and Secretary occupied the chair and vice-chair. Many members returned after dinner to the hospitable abode of the President, and remained his guests until the following day.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Owen's College Medical School.—Cases in the Royal Infirmary.—Provident Dispensaries.

THE prospectus of the Owen's College Medical School has been issued. The professor of anatomy has not yet been appointed; otherwise it is complete. Mr. Windsor lecures on ophthalmology; Dr. Leech shares the materia medica lectures with Mr. Somers; and Dr. Dreschfeld's name appears in conjunction with Dr. Simpson as lecturer on pathology and morbid anatomy. These changes must render the school still more popular and efficient. For the professorship of anatomy, we hear, there are several very eligible candidates, and the Council will have some difficulty in choosing from so many good and popular teachers. The originators of the scheme for the establishment of a rival school have wisely abandoned their original intention, and the misunderstanding that existed has been settled.

At the Infirmary the other day, Mr. Southam crushed a cystine calculus. By the microscopical examination of the urine, the nature of the calculus was diagnosed; and the detritus that came away confirmed the diagnosis. In his remarks upon the case, Mr. Southam said he had the greater confidence in subjecting the patient to lithotrity, because in a similar case, four years ago, the calculus had been found to be made up entirely of cystine; and so it seems to be in this case. The calculus gave way very easily, and the crushing was repeated a week or so afterwards. The bladder is now almost free of detritus. During the last four months, seven patients have been lithotomised, and two lithotrised.

Mr. Lund removed a myxomatous tumour from the parotic region. The patient, a male, noticed the first appearance of the tumour twelve months ago. Of late it had been growing more rapidly than at first.

Mr. Bowring had under his care a man who ruptured his left femoral artery whilst straining at his work. He was admitted with a large diffused non-pulsatile swelling in the upper part of the left thigh; there was no pulsation of the arteries of the leg. From the history of the case, and condition of the limb, a diagnosis of ruptured artery was made. Lister's aortic tourniquet having been applied, an incision was made over Scarpa's triangle; a large quantity of coagulated blood was removed; and the divided ends of the artery were seen and secured by catgut ligatures. The man progressed uninterruptedly to recovery, and has now left the infirmary.

We have every reason to believe that provident dispensaries are on the eve of being established. The Royal Infirmary, and the Clinical and Children's Hospitals, are the only institutions that are earnestly moving in the matter; the others are holding themselves aloof thus far; but will, we doubt not, eventually join in the scheme.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

Graduation Day.—Prize Thesis.—Ettles Prize.—Professor Spence's Address to the Graduates.

ON Saturday, August 1st, the academic year was brought to a close by the graduation or capping ceremonial, when the degrees of M.B. and C.M. were conferred on eighty candidates; the degree of M.B. alone on nine more. Twenty graduates of past years came up for their M.D. degree. Of these, only one, Dr. Foulis, gained a gold medal for his thesis. Eight others were found deserving of special commendation. We hear that Dr. Foulis's thesis is one of unusual merit; it is on "The Normal and Pathological Anatomy of the Ovaries and Parovarium", and was illustrated by numerous beautiful microscopical preparations. As it is shortly to be published, the profession at large will be able to judge for themselves as to whether it merits the high encomiums which competent authorities have pronounced on it here.

The Ettles Prize of £40, which is given annually to the graduate who has most distinguished himself during his career as a student, was awarded to Mr. James M. Brown, who graduated with first-class honours. Mr. Brown has for some time past been assisting Dr. McKendrick in conducting the class of Physiology.

After the capping ceremony was over, the inaugural address to the newly fledged Bachelors of Medicine was delivered by Professor Spence. After reminding his hearers that the knowledge which they had yet acquired was only the foundation for the superstructure to be subsequently built on it, and that they ought all their lives long to look on themselves as students, Mr. Spence impressed on them the value of the same exactness in their general practice as they had been accustomed to see used in the conduct of cases in hospital. He then passed on to the subject of medical reform, and expressed his belief that the true solution of the difficulties which lie in the way of medical teaching will be found in an extension of the time allotted to study. After a brief criticism of Huxley's views, as given in his address at Aberdeen, he advocated the establishment of more efficient arrangements for bedside teaching, and the development of the tutorial system in clinical work, the Conjoint Examination Board was ridiculed, and the profession vindicated from the charge of inefficiency implied by the demand for a new system of examinations. After a hearty and eloquent eulogium on Dr. Hughes Bennett, whose loss to the University he deeply deplored, Mr. Spence wound up an interesting address by a review of the highly satisfactory condition of the Medical School, and its promises of even greater efficiency in the future, when the new University buildings and Infirmary shall give increased opportunities for work.

The degrees were conferred, as usual, by the Chancellor of the University, Lord Justice-General Inglis; while the Senatus was represented by most of the medical professors and a few others. The assembly-hall was densely crowded, more so than we remember to have seen on any similar occasion of late years.

CONSTANTINOPLE.

[FROM AN OCCASIONAL CORRESPONDENT.]

Water-Supply.—Health of Constantinople.—Small-Pox in Cyprus.

THE question which is now being discussed by the authorities constituting the sanitary government of this city, and engrossing their entire attention, is the subject of the water-supply, which at the present time is lamentably deficient both in its quantity and quality. The three principal sources whence it is now obtained are subsoil springs and wells, frequently impregnated with mineral matters, often of a highly deleterious nature, anything but conducive to health, and situated in various parts of this over-populated and densely crowded city, liable to free sewage, or rather cesspool contamination; secondly, rain-water collected from the roof-tops, stored in underground and badly built tanks or reservoirs, liable to the same deleterious contamination as the wells; and, thirdly, Bena water, which is brought from a distance of seventeen miles. At Belgrade, situated in a forest of the same name, are several valleys of considerable extent, which have been closed by massive piers of masonry, so as to dam up the water collected during the rainy season from the surrounding hills. Conducted by a very rude system of conduits and aqueducts to the heart of the city, it is issued then to the inhabitants as a very expensive mawkish green-coloured fluid, containing an abundance of vegetable *débris*, rich histologically with germs in various stages of formation and degeneration, humic and ulmic acids, etc. An idea very prevalent amongst the medical faculty of this country is, that water brought from a malarial district is in itself a most potent cause of malarial infection. The country immediately surrounding the bends or lakes—a great resort of holiday-takers, both Frank and Turkish—is at certain periods of the year so unhealthy from malaria, that the region is deserted by all excepting the villagers, a race of *rayah* Greeks. This in itself, I fancy, supposing the view taken by the medical authorities to be correct, may account for many of the cases of intermittent typhus and remitting intermittent which occur frequently in this city.

A company has been formed to introduce a sufficient and constant supply of pure water from the lake of Ducos, situated thirty miles away. The analysis made by Dr. Frankland argues well for its purity. He reports that the water, after filtration, will be an excellent potable water; and when communication is cut off, which is proposed shall be, the water will be entirely fresh and unobjectionable in all respects. I myself am about to proceed thither, and in my next I hope to give you an unbiassed opinion.

The health of Constantinople and surrounding districts up to the present time still continues extremely good; the sickness and mortality at the present time is considerably less than the corresponding period last year.

A letter from Cyprus received states that small-pox has broken out in a virulent form at Larnica, Limassol, and Varossi; the disease most commonly affects children, and one family has already lost by it five of its younger members.

CORRESPONDENCE.

THE USE OF THE ASPIRATOR.

SIR,—I wish to draw the attention of the profession to one drawback in the use of the aspirator, which was not attendant on that of the old trocar and cannula, and, at the same time, to endeavour to point out a remedy.

In emptying a cavity, the operator, towards the close of the operation, is often alarmed by finding the instrument filled with pure, or nearly pure, blood. This accident, I think, arises from the walls of the collapsing cavity being forcibly sucked against the sharp point of the needle, and thus scratched, or, perhaps, even perforated. There are, of course, many objections to this occurring; the patient is often too debilitated to bear any loss of blood, or, the hæmorrhage continuing after the operation, we may merely have substituted one fluid for another in the cavity; or, again, when the operation has to be often repeated, the loss may become a serious matter, even for a robust patient.

We might avoid this by using the trocar and cannula, and then adjusting the aspirator to the cannula; but, as in this proceeding we could not possibly prevent the escape of some of the fluid, we should run the risk of air passing into the cavity, and so all the advantages of the aspirator would be lost. What I propose is, that the needle should be made double; that it should, in fact, consist of two tubes sliding one over the other, the outer one pointed, the inner one not so.

In inserting this needle, the outer pointed tube should be pushed in advance of the inner one, and, when the cavity is reached, should be pulled back, so that the inner non-pointed one may be in advance of and shield the pointed one. There would be one minor advantage in thus having the needle double—that it would be much stronger, and not so apt to bend as the present needles are.

There can be no difficulty in preventing air from passing in between the two tubes. If they fitted accurately one within the other, a little grease might be sufficient; but, to prevent all chance of this occurring, I have directed Messrs. Blaise and Co. to enlarge the upper part of the outer tube and place an India-rubber washer between them.

I see that, in your JOURNAL of the week before last, you have again figured Messrs. Coxeter's aspirator. I have no doubt that it is, as you say, "a very effective and beautifully constructed instrument"; but what I fail to see is the necessity of having a separate and expensive pump for each instrument, in which exhaustion of the air plays a necessary part. Surgeons, especially beginners, are not, as a rule, so well off that they can afford to buy all the "expensively and beautifully got up instruments" which we are continually being assured are "necessary weapons in the armamentum of every practitioner". We want as few instruments as possible, and those not necessarily beautifully got up, but cheap and well made. In furtherance of this object, I suggested to Messrs. Blaise and Co. the manufacture of the combined instrument figured at page 98 of their catalogue. In it are combined an aspirator, a stomach-pump, an enema, and an ear-syringe. It can also be used for dilating Dr. Barnes's bags, elastic pessaries, etc. It has, like Messrs. Coxeter's instrument, the double action necessary for washing out cavities, with the advantage over their instrument, that the tap, which regulates the course of the fluid, can be worked by the left hand of the operator, holding the pump, and not requiring either the assistance of another person, or that the pump should be laid down each time the piston is worked, in order to turn it.

I am not the least interested, pecuniarily or otherwise, in the sale of this instrument; all that I have stipulated for with the makers is, that it should be produced at the least possible cost. This, I think, they have carried out successfully; for, whereas the instruments I have named, bought separately, would cost at least six or seven guineas, the combined instrument can be procured for three.

In order to render the instrument more handy for the several purposes for which it is intended, I have directed Messrs. Blaise and Co. to make the pump much smaller than the ordinary stomach-pump; but I should recommend all surgeons requiring the instrument, and who have a stomach-pump in good working order, merely to have the necessary addenda, which they can do at a very small expense.

I am, etc., ALFRED GODRICH, M.A., M.R.C.S., etc.
140, Fulham Road, July 25th, 1874.

RECENT RESOLUTIONS OF THE GENERAL MEDICAL COUNCIL.

SIR,—Permit me to ask the special attention of those concerned in medical education to the important debate at the sitting of the General Medical Council on Wednesday, July 15th.

The speeches of Professors Humphry and Turner, eminently practical —as, indeed, were all the speeches—need, perhaps, a longer report than your space would permit; but let the resulting resolution be widely known and emphasised: "That the student's certificate should state he had satisfactorily attended class examinations."

Every teacher must be able to corroborate every point—the value of such examinations, the appreciation of them by the good men, the avoidance of them by those who need them. I speak now specially of brief oral examinations on subjects of previous lectures.

But there are more trying examinations, held by us as by other Colleges at the end of term, with medals, etc., for prizes; at these we have no power to compel attendance. Men fail to see their value, or shirk the labour. As Professor Turner says—"They know the best men, and say 'what is the use of our going in'?" I am this evening occupied with my examination papers. Out of a class of thirty-six, I have answers only from three; the answers, I observe, are good; I should fancy even the Dublin College of Surgeons would not object to showing them (*vide* meeting of July 11th); but this only proves that the men who need the examination are the ones absent.

Now we here, also like other schools, instituted in addition a "test examination", and this we so far make compulsory, that we refuse signatures for the "first College" unless it be passed; the result of this—it is only in anatomy and physiology—has been, since its proper organisation, thoroughly good. Of our last set of candidates, nine passed out of ten or eleven. Such examinations as this, but in all subjects, are what is meant, I presume, by the resolution of the Council. I say, emphatically, they are much to be desired.

There was another equally important resolution passed on the motion of Dr. Andrew Wood, viz.: "That it is desirable to limit the area of examination (not necessarily of teaching) in such subjects as botany, zoology, chemistry, materia medica."

As a teacher and examiner, speaking from my own experience, I venture to say that this also is an excellent and much needed resolution. Observing, from your condensed report, that some difficulty was made as to mode of limitation, I took up my pen to introduce to your pages a notice of Dr. Harvey's *Syllabus of Materia Medica*, but on referring to a fuller report I find that Dr. Wood and others specially mentioned it. I will only say then that I have fully agreed with Dr. Harvey from the first, and have used his *Syllabus* in my class since its introduction; it is an excellent instance of how the limitation may be carried out; it is a great and a fair relief to students, to say "your written examination will be limited to articles marked 1 or 2", it gives point to their work and much more accuracy (how great a desideratum!) to their knowledge.

The teaching of materia medica is necessarily limited, at least in English schools, by the short time available for it and by the importance of other subjects. "The true remedy for present dissatisfaction in this matter is the separation of subjects, giving a practical course of pharmacy in the first year, of therapeutics in the third or fourth." Until, or even after, this desirable end is attained, let me say, as one teacher at least, how strongly I feel that these two resolutions are moves in the right direction.

Perhaps this may elicit the ideas of others. The subject is well worthy remark or discussion. I am, etc., EDWARD MACKEY,
Professor of Materia Medica and Therapeutics
July 29th, 1874. in Queen's College, Birmingham.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE Monmouth Board of Guardians have increased the salary of Mr. Woollett, Medical Officer for the Monmouth District and the Workhouse, from £55 to £70 *per annum*.

Dr. P. H. BANKS of Risely, near Bedford, has, for the third time, received the grant of the Local Government Board for successful vaccination. The amount of the grant is £17 16s.

MEDICAL OFFICERS OF HEALTH AND REGISTRARS OF DEATHS.

SIR,—I beg to send you a copy of a letter written by me to the Registrar-General, and his reply to the same. His decision, instead of facilitating the work of the Medical Officer of Health, obstructs it.

I have been in the habit, when preparing a report on a village or parish, to call on the registrar and go carefully through his register books, and make an estimate of the percentage of deaths from each zymotic disease, as well as the annual death-rate. I then compare the mortality of this particular village or parish with the mortality of the other districts in Essex, and of districts in other parts of the kingdom.. According to the wish of the Registrar-General, the Medical Officer of Health is to tell the registrar what he wants, and the registrar (many of whom spell and write most villainously, and are thus very apt to make mistakes) is to make written extracts for him. For this work, the Sanitary Authority is to fairly remunerate the registrar.

I am quite certain that neither of the Sanitary Authorities with which I am connected will pay the registrars for this work of making written extracts and estimates, a work which more properly devolves on a medical man. In looking over the registers of mortality, the necessity that the examination should be made by a medical man frequently presses itself on my attention, if a correct estimate is to be made. I would not trust my clerk, whose education is far superior to the majority of district registrars, to make the scrutiny for me.

I had hoped that the Registrar-General would have smoothed the way of the Medical Officer of Health, which is already sufficiently beset with difficulties.

You are quite at liberty to make any use you please of this correspondence. I am, etc., CORNELIUS B. FOX, M.D.

Maldon Rural Sanitary Authority, July 13th, 1874.

Copy of Letter from Dr. C. B. Fox to the Registrar-General.

Maldon Rural Sanitary Authority, July 6th, 1874.

Dear Sir,—Having been instructed by the Maldon Rural Sanitary Authority to prepare a sanitary report on the parish of Burnham, situated in the Southminster District of the Maldon Union, I immediately proceeded to ascertain the mortality of the parish.

I went to the Superintendent Registrar's office in Maldon, and consulted the registers of deaths. Mr. Codd, the Superintendent Registrar, was most courteous and obliging, and offered me every facility for extracting the information which I required. On my asking for a sight of the last register-book (which I wanted particularly to examine, in order to ascertain the number of deaths that had recently occurred from small-pox), he told me that it was in the hands of the district registrar, Mr. Carter Wigg. I accordingly wrote Mr. Wigg a most courteous letter, asking him when I could conveniently look at the register of deaths in his possession. After a delay of about a fortnight or three weeks, I received a reply from him, which I am quite prepared to show you if you wish to see it. In his letter, he declined to allow me to see the register of deaths unless I paid him for so doing the usual fee.

I placed the letter of Mr. Wigg, the Registrar of the Southminster District, before the Maldon Rural Sanitary Authority at a recent meeting of that body. The members quite felt, as I do, that, as a public official, the registrar should not have refused me free access to all information, but at the same time did not know that they had any power to compel the registrar to allow me the inspection without the payment of a fee. I may say that there is not the slightest ill-feeling, that I am aware of, between the Sanitary Authority and the registrar, or between the registrar and myself.

I write to inquire whether I, as a public official, can compel the registrar to give me, without a fee, the information which I require, in order to enable me to make what estimates I may think proper as to the death-rate, and prevalence of preventable disease in Burnham.

We all feel that if he cannot be compelled, registrars ought to be under an obligation to furnish such information to a Rural Sanitary Authority, for it is a most anomalous state of things for a Medical Officer of Health to pay a fee for such matters.

I must say, however, that I have not before been annoyed by such a demand, although I have examined registers of deaths at the offices of several registrars in my extensive district.

I am, Sir, your obedient servant, CORNELIUS B. FOX, M.D.,
Medical Officer of Health of the Combined Sanitary Districts of
Chelmsford, Maldon, and Billericay, Essex.

To the Registrar-General.

Copy of Letter from the Registrar-General.

July 9th, 1874.

Sir,—I am desirous that, for sanitary purposes, any information to be derived from the civil registers of deaths should be in possession of Medical Officers of Health.

But I am also desirous that these public records should not leave the custody of registration officers, and that written extracts from them should only be given by those to whose safe custody they are confided, however respectable may be the applicants—whether of the medical, legal, clerical profession, or any other.

Therefore it is my wish that the Registrar of Births and Deaths should forthwith furnish you with any stated particulars that you may require respecting the parish of Burnham, receiving fair remuneration for the extra trouble thus imposed on him from the Local Authority.

Your faithful servant,
GEORGE GRAHAM,
To Cornelius B. Fox, M.D. Registrar-General.

MILITARY AND NAVAL MEDICAL SERVICES.

THE Director-General of the Naval Medical Service has recently inspected all the hospitals under his control at Portsmouth and Portland; and it is understood that he will proceed to Plymouth and Ireland.

THE vacant Medical Good Service Pension has been bestowed on Dr. Salmon, Inspector-General of Hospitals and Fleets. It is said that Dr. Salmon is by several years the senior officer of his rank now on the active list.

NAVAL MEDICAL SERVICE.—List of naval medical candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School at Netley, and who will receive Commissions as Surgeons in the Royal Navy, August 1874.

		No. of Marks.
1.	Saunders, E. H.	4297
2.	Richardson, H. A. W.	3825
3.	Collot, J. A.	3460
4.	Luther, E. W.	3437
5.	Bentham, R.	3425
6.	Ross, N. C.	3394
7.	Collins, H. B.	3179
8.	Bennett, W. E.	3150
9.	McKinlay, A.	3032
10.	Hawton, J. W. H.	2910
11.	Mulock, E. R.	2800

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, July 30th.

Sanitary Laws Amendment Bill.—Lord WALSINGHAM, in moving the second reading of this Bill, stated that, up to the year 1872, great confusion existed among the sanitary authorities throughout the country, and various questions were submitted to a Royal Commission, who recommended, in their report, that the country should be divided into urban and rural districts for sanitary purposes, and that only one authority should exercise jurisdiction in each district. The Public Health Act of 1872 attempted to give effect to the recommendations of the Commission. The country was divided into urban and rural sanitary districts, the authorities in the former being the Town Council, the Improvement Commissioners, and the Local Board, and in the latter the Poor-law Guardians. The Act also dealt with minute and intricate questions connected with local administration. Anomalies had since been recognised in the operation of the existing law, and the present Bill was a necessary step towards the ultimate attainment of a desired object—viz., the consolidation of the sanitary laws.—Lord REDESDALE agreed that nothing was wanted more than a consolidation of the sanitary laws, but he did not think this measure could fairly claim to be a step in that direction until it was more clearly drawn. With regard to Boards of Guardians, he feared they might incur very heavy expense if great powers were given to them.—Earl FORTESCUE was disappointed that a more comprehensive measure had not been submitted to Parliament this year upon the subject. He should have preferred that some of the time wasted in considering the Intoxicating Liquors Act had been bestowed on the consolidation of the numerous Sanitary Acts. The sanitary condition of the country had almost retrograded since the first Public Health Act was passed in the Administration of Earl Russell.—The Duke of RICHMOND agreed with the noble earl that a thorough consolidation of the Public Health and Sanitary Acts should take place, but he could not undertake to promise that it should be attempted next session; but that was no reason why this Bill should not be proceeded with. If the noble earl made inquiries of the Local Boards throughout the country, he would find that great progress had been made in improving the sanitary state of the country within a very short period of time.—The bill was then read a second time.

The Public Health (Ireland) Bill passed through Committee, Lord REDESDALE having first protested against the powers given in this Bill to public bodies in Ireland to sell waste lands, whilst in this country they only possessed the power of leasing.

The Slaughterhouses, etc., Bill was read a third time.

Monday, August 3rd.

The Sanitary Law Amendment Bill passed through Committee.

Public Health (Ireland) Bill.—Upon the order of the day for the third reading of this Bill, Lord REDESDALE moved the omission of clause 38, which, he said, gave undue power to the Corporation of the city of Dublin, who might call upon certain parishes to purify water supplied to the city, though they had no interest in the water whatever.—The clause was struck out, and the Bill read a third time and passed.

HOUSE OF COMMONS.—Thursday, July 30th, 1874.

Medical Officers on the Gold Coast.—Mr. HARDY, in reply to Colonel Learmouth, said that the medical officers attached to the three regiments on the Gold Coast, whether senior or junior, received additional pay like the officers of the regiment. The medical staff received double pay whilst serving on shore.

Monday, August 3rd.

Typhoid Fever near Huddersfield.—In answer to Mr. Marten, Mr. SCLATER-BOOTH said that attention had been called to a recent outbreak of typhoid fever, at Clayton West, near Huddersfield, and that measures had been taken in consequence. He feared, however, that there had been a fresh outbreak, as on Friday an application was made for an inspector to be sent down, which, of course, would be done as soon as possible.

OBITUARY.

HUMPHRY SANDWITH, M.D., F.R.C.P.

ON July 25th, at Todwick Rectory, the residence of his son, died one of the veterans of the profession, Dr. Humphry Sandwith, at the ripe age of eighty-two.

Dr. Sandwith commenced practice in 1816 at Bridlington, Yorkshire, where for many years he was at the head of his profession. It was here he published an extremely able monograph *History of the Bridlington Epidemic Fever*, which was most favourably reviewed by the editors of the medical periodicals of that date (1821). Medicine is essentially a progressive science. We have looked over the monograph in question, admired the classic and fervid style of the young practitioner of fifty-three years ago; but it is no detraction to the author to say that such a book, with its sanguinary remedies, would meet with little favour in these days.

Dr. Sandwith left a large practice in Bridlington to tempt fortune in London, where he practised for more than seven years; but, being impatient at the slow increase in his practice, he left the metropolis for Hull in 1841. Shortly after his arrival, he was elected Physician to the Hull Infirmary; and never did an unpaid officer devote more time and energy to his poor patients than the subject of this memoir. He worked morning, noon, and night in the wards assigned to him, and gained golden opinions from the poor, and especially from those of his colleagues who laboured with him. He was rewarded for his professional devotion to the poor by a steady and satisfactory increase in his practice, for he became widely known as a consulting physician in Hull, the East Riding, and North Lincolnshire. During this time his pen was not idle. The medical periodicals have had to notice from time to time sundry monographs and papers on cholera, bronchitis, the condition of the brain in fever, diarrhœa, etc., showing Dr. Sandwith to have been a man of acute observation and patient research. He likewise was Lecturer on Medicine at the Hull Medical School, where his lectures were carefully prepared, and delivered in an attractive form.

After twenty years' faithful service at the Hull Infirmary, he retired from the post of senior physician, and confined himself to private practice, and that of the lightest kind, on account of the growing infirmities of age. About ten years ago, he resolved on quitting altogether the scene of his labours; and when this determination was made known, the old man's heart was sorely tried by the testimonials of affection and esteem which flowed in on him from every side. Perhaps the most legitimate proof of the estimation in which he was held was the unanimous expression of regret and affection afforded by his medical colleagues, who subscribed to a handsome testimonial, and who latterly regarded him as the father of the profession in Hull.

Finally, he retired to the residence of his son, the Rev. Henry Sandwith, where he lived a retired and happy life, enjoying the afternoon sunshine of a placid old age, beloved by all who knew him, especially so by his children and grandchildren, one of the latter being a distinguished Fellow and Tutor at Oxford.

Dr. Sandwith was a leading member of the Wesleyan Methodist Society. Two of his sons belong to our profession—viz., Dr. Humphry Sandwith, C.B., late Colonial Secretary of Mauritius, and Dr. Godfrey Sandwith, now practising at the Cape of Good Hope.

His character was marked by no attributes stronger than that of guileless simplicity. He was eminently unworldly, a devout and humble Christian; a most generous giver, far beyond the limits of his own communion; and now, doubtless, of him it may be said, as of Cornelius of old—"Thy prayers and thine alms are come up for a memorial before God."

C. W. SMERDON, M.R.C.S., BRISTOL.

DEATH has recently removed from our ranks one of the oldest members of our Association in Bristol, and one of the oldest members of the profession. Mr. Smerdon, descended from an ancient Cornish and Devonshire family, was born in March 1786 at Ashburton in Devonshire, of which parish his grandfather, the Rev. Thomas Smerdon, was rector, as well as master of the Ashburton Grammar School, where Mr. Smerdon was educated. This school was at the zenith of its popularity from 1765 to 1797; Gifford, the editor of the *Quarterly Review*, and Dr. Ireland, afterwards Dean of Westminster, were pupils there. Mr. Smerdon was educated professionally at Guy's Hospital, and became a Member of the College of Surgeons in 1812. He afterwards settled in Clifton, where, for many years, he had one of the largest provincial practices. Devotedly attached to his profession, simple and unpretending in manner, highly honourable in his intercourse with his fellowmen, kind and generous (wherever generosity was required), his life was one of unsurpassed sincerity and uprightness. He was, indeed, the true type of a Christian gentleman, and his memory will be held in remembrance by all who had the privilege of his friendship. He died on June 22nd, lamented by the poor, to whom he was a munificent benefactor, and by the rich, to whom he was a sincere friend.

H. R. HOWATT, M.D., Glasgow.

ONE of the oldest practitioners in the South side of Glasgow died on July 16th. Dr. Howatt obtained his diploma from the Faculty of Physicians and Surgeons in 1840; and since then he has been in busy practice, having secured the confidence and respect of the public, and the high esteem of the profession. He received the degree of M.D. from the University of Aberdeen in 1851; and in the same year he was elected a Fellow of the Faculty of Physicians and Surgeons of Glasgow, in whose proceedings he always took much interest. He was for many years Vaccinator to the Faculty, and of late he had the honour of a seat at their Council Board. He was closely connected with the origin and success of the Glasgow Southern Medical Society, which was founded thirty years ago; and he made occasional contributions to their proceedings. He acted for a long time as Treasurer of the Medico-Chirurgical Society of Glasgow; and at the time of his death he was also a Trustee of Anderson's University, and a Director of Stirlings's Library. His aptitude for business and all that concerned the forms of procedure was so well known that, notwithstanding his natural modesty, he was generally regarded as an authority on all such points. There was, however, in his character something of a higher quality than business precision; and his genuine amiable nature, tinged with a degree of quiet humour, endeared him to all who came into intimate contact with him.

A year ago, his usual robust health was invaded by the beginnings of malignant disease, which even then threatened his life; but he recovered so far as to be able to overtake with comfort most of his usual duties till the beginning of July, when his fatal illness set in. He died on the 16th ult., aged 57. His funeral had something of a public character. The profession, and particularly the Southern Medical Society, were largely represented; and many spectators in the neighbourhood of his residence, and on the way to the old Gorbals burying-ground, watched the funeral procession of one who was so well known.

WILLIAM McGEE, M.D., BELFAST.

DR. WILLIAM McGEE, an old and highly honoured physician of Belfast, died lately, in his eighty-first year. He studied at Edinburgh; and in 1812, having passed for assistant-surgeon in the Royal Navy, he was appointed to H.M. Frigate *Nymphe*. He saw much service in the war with America, was twice taken prisoner, and was engaged in the unsuccessful attack on New Orleans in 1815. In the same year, he returned to England, and resumed his studies at Edinburgh. In 1820, he graduated as M.D., and was appointed to the *Nautilus;* and, after some years' service in the West Indies, he obtained the rank of surgeon, On retiring from the Navy, he commenced practice in Belfast, and soon gained a high position in his profession. He took an active part in public life, and was for several years Chairman of the Board of Guardians and a member of the Town Council. By the unanimous voice of his fellow-members, he was elected to the office of Mayor in 1853, and in the following year was made a justice of the peace for the County Antrim. He was twice elected to the presidency of the Belfast Medical Society. In 1852, he received a presentation of plate from his medical brethren, "as a token of their esteem, and of the approbation with which they have observed his unceasing efforts to promote and uphold the honour, interests, and social position of the medical profession." He was a strong advocate of sanitary improvement, and displayed great zeal and energy during the epidemics of cholera. For many years before his death, he had retired from practice; but he frequently attended and spoke at the meetings of the Medical Society. In noticing his death, a Belfast paper says: "He will be honoured as a man of many public and private virtues, all of which received additional lustre from his ample, varied, and ever expanding culture, and from his invariable honesty of purpose."

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted to the Fellowship at a meeting of the Comitia on August 5th.

Blake, Charles Paget, M.D.Edin., Torquay
Bradbury, John Buckley, M.D.Cantab., Cambridge
Crucknell, Henry Heanes, M.B.Oxon., Welbeck Street
Gervis, Henry, M.D.Lond., St. Thomas Street
Goodridge, Henry Frederick Augustus, M.D.Lond., Bath
Lee, Robert James, M.B.Cantab., Savile Row
Liveing, Edward, M.D.Cantab., Queen Anne Street
Moore, William Withers, M.D.Edin., Brighton
Smith, Eustace, M.B.Lond., George Street, Hanover Square
Thorowgood, John Charles, M.D.Lond., Welbeck Street

UNIVERSITY OF LONDON.—1874. Preliminary Scientific (M.B.) Examination. Pass List.

First Division.

Baddeley, Charles Edward, King's College
Berry, Frederic Haycraft, Guy's Hospital
Bond, James William, University College
Boulting, William, University College
Buck, John William, private study
Burry, Henry Burry Pullen, London Hospital
Bush, Erasmus, St. Bartholomew's Hospital
Castle, Hutton, St. Thomas's Hospital
Cattle, Charles Henry, Leeds School of Medicine
Cox, Frederick Augustus, private study
Crow, John Kent, Owens College
Drysdale, Alfred Edgar, University College
Franklin, Arthur, St. Bartholomew's Hospital
Giles, Bernard Faraday, Guy's Hospital
Gill, Richard, Royal Institution School, Liverpool
Granger, Edgar Bridden, Guy's Hospital
Gotch, Francis, B.A., University College
Hill, Alexander, University College
Jackson, Edwin, B.A., Owens College Medical School
Keep, Charles Henry, Guy's Hospital
Lyddon, Richard, St. Bartholomew's Hospital
McAlister, Donald, St. John's College, Cambridge
Mackern, George, Guy's Hospital
Manby, Herbert Lynsey, Guy's Hospital
Maylard, Alfred Ernest, Guy's Hospital
Munro, John May Herbert, College of Science, Dublin
Oldroyd, Joseph Hollinghead, University College, and private study
Paddle, James Isaac, B.A., Royal College, Mauritius
Parry, Robert, Owens College
Pollard, Bilton, Epsom College
Prowse, Arthur Bancks, Liverpool School of Medicine, and private study
Robertson, David, LL.B., private study
Sedgefield, Arthur Robert Wyatt, King's College
Shaw, John, St. Thomas's Hospital
Smith, George, Royal School of Mines
Smith, Kenneth Rawlings, University College
Tilly, Alfred, St. Mary's Hospital
Tuke, William Samuel, private study
Uhthoff, John Caldwell, Guy's Hospital
Wainewright, Robert Spencer, Guy's Hospital
Ward, John Hansford, Crescent School, Margate
Wangh, Henry Dunn, B.A., University College
West, Edward de Lancy, private study
White, Augustus Henry Scott, B.A., University College
Whitney, Neville Scott, University College
Wiglesworth, Joseph, Liverpool School of Medicine
Wilkinson, Arthur Thomas, B.A., Owens College Medical School
Williams, David James, University College
Williams, Dawson, University College

Second Division.

Andrews, William Stratford, University College
Brook, Lancelot, St. Bartholomew's Hospital
Buckell, Arthur Edward, University College
Burt, Alfred, Guy's Hospital
Clark, James Richardson Andrew, University College
Collins, William Edward, St. George's Hospital
Culhane, Frederick William Slater, University and Epsom Colleges
Davies, William Edward, University College
Davy, David Henry, London Hospital
Dunbar, James John McWhirter, St. George's Hospital
Duncan, Harry Montague, University College
Dymott, Donald Frederick, Hartley Institution
Gabb, James Percy Alwyne, University College
Green, Thomas Beaufoy, University College
Hadden, Walter Baugh, Liverpool School of Medicine and private study
Heath, William Lenton, St. Bartholomew's Hospital
Hill, Charles Birnie, University College
Hodge, Arthur, University College
Hopkins, John, University College
Jackman, William Thomas, St. Bartholomew's Hospital
Jackson, Alfred Henrice, Owens College
Jackson, Arthur, St. Bartholomew's Hospital
Johnstone, William, University College
Jones, Arther Lloyd, University College
Jones, Roger Hughes, Liverpool School of Medicine
Juler, Henry Edward, St. Mary's Hospital
Landon, Edward, St. Thomas's Hospital
Lendon, Alfred Austin, University College
Lubbock, Montagu, Guy's Hospital
Marsh, Joseph Henry, St. Thomas's Hospital
Matthews, Arthur, Sidney Sussex College, Cambridge
Matthews, Valentine, King's College
Parkyn, Ernest Albert, University College and private study
Payne, Charles Alexander, Private tuition
Plumbe, Samuel Thomson, St. Bartholomew's Hospital
Rendell, James Robson, Owens College
Roberts, David Davies, Guy's Hospital
Roeckel, Waldemar Joseph, St. Bartholomew's Hospital
Shaw, George, Private study
Smith, Herbert Urmson, St. Thomas's Hospital
Sutcliffe, John, Owens College Medical School
Terbitt, Frederic, St. Thomas's Hospital
White, Charles Haydon, St. Thomas's Hospital

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted members of the College on July 21st, 22nd, 23rd, 24th, 27th, 28th, and 29th.

Charles Ed. Abbott, Liverpool; Henry G. Armstrong, L.S.A., Staines; Francis Edward Atkinson, Leeds; John Henry Badcock, Abingdon; Henry Hearsey Bathe, Southampton; Samuel Benton, Southend; Sidney Adolphus Bernays, Brixton Hill; Wm. F. F. Boase, L.R.C.P.Lond., Plymouth; Henry Bott, Bourne, Lincolnshire; Harold Baxter Boulter, Hull; John Maddern Bromley, New Swindon; George Buckston Browne, Manchester; Walter Brown, Tetbury, Gloucestershire; Henry Caddy, L.S.A., Alverston; Albert Carter, L.S.A., South Lambeth Road; Arthur Clarke, Brill; Henry Clarke, South Penge; Martin Luther Clift, Central Street; Charles S. W. Cobbold, M.D., Portsdown Road; Floyd Collins, Ware, Herts; Holland John Cotton, M.B., Edinburgh; Wm. Edward Cree, L.S.A., Upper Holloway; Andrew Stark Currie, M.B.Ed., Edinburgh; Chas. James Davey, L.S.A., Witham, Essex; Elijah Knox Davies, L.S.A., Stroud; Francis T. Davies, L.R.C.P.Ed., Pendleton, Manchester; Rashell Thomas Davidson, Tritlington; Clifford Luxmoore Drew, Exeter; Llewellyn Wilson Evans, Strand; John J. Farley, M.D., Belville, Canada; Joseph Foreman, L.S.A., Wigan; Daniel Herbert Forty, Shillingford, Oxon; John Alexander Fothergill, Alfred Place; James Kingston Fowler, Arlington Street; Wm. E. N. Frith, Camden Road; Wm Adams Frost, Ladbroke Square; Edmund Fyson, Blackfriars Road; Robert A. Gibbons, M.B., Edinburgh; Edward Owen Giblin, Hobart Town, Tasmania; Frederick C. Gresham, Springfield, Liverpool; Cecil Neil Griffiths, Cheltenham; Owen Gwatkin, Brighton; George Albert Hamerton, L.S.A., Peckham; James Arthur Hardy, Adelaide, South Australia; Wm. Henry Harsant, L.S.A., Epsom; Giles L. L. Hawken, L.S.A., Camelford, Cornwall; John Page Hentsch, Broad Street; Thomas Fay Hopcroft, Bayswater; Jos. Bouch Hutchinson, Liverpool; Samuel John Hutchinson, Brook Street; Michael Lewis Jarrett, Sierra Leone; John Job, Redruth, Cornwall; Wm. Henry Johnson, M.D., Toronto, Guelph, Canada; Arthur Henry Jones, Peckham; Charles Morgan Jones, Aberdare; Richard S. Jones, Bangor; John Robert Kemp, Notting Hill; Nathaniel Thomas King, Lagos; Samuel J. J. Kirby, Stratford; Charles T. Knox, Trinidad; Edward H. Lendon, Maidstone; Wm. Vickress Lindsay, L.S.A., Pimlico; James Little, M.B.Ed., Wigton, Cumberland; Charles A. Law, Wimborne, Dorset; Jonathan F.C.H. Macready, Gilston Road; Chas. James Manning, Barbadoes; John M. H. Martin, St. Helen's; Richard Mason, L.S.A., Tenby, South Wales; Wm. S. Mavor, L.R.C.P.Ed., St. Leonards-on-Sea; Chas. Arthur Mercier, Hackney; Robert Bickersteth Miller, Torrington Square; Jas. Matthew Moody, Great Warley; Andrew Stanford Morton, M.B.Ed., Edinburgh; Rich. John Morton, Aylsham, Norfolk ; Charles Newman, Bristol ; Alfred Chas. Perrin, Kensington ; Edward J. M. Phillips, Liverpool ; Joshua Powell, Newcastle-on-Tyne ; Clement E. Priestley, St. Faith's ; Peter Burnett Pring, Festiniog, North Wales ; Richard Frith Quinton, M.D., Dulwich ; Edward Osmund Reynolds, Appledore, North Devon ; Humphrey Roberts, Festiniog, North Wales ; Arthur W. M. Robson, Leeds ; Bernard M. S. Roth, Wimpole Street ; Wm. Gr. Rowntree, Islington ; Robert Saundby, M.B., Edinburgh ; Francis John Shepherd, M.D., M'Gill College, Montreal ; James Shuter, M.B., Holloway ; Henry B. L. Smith, M.B.Aberd., Berkeley Square ; George Snell, L.R.C.P.Ed., Jersey : Edmund J. Spitta, Clapham Common ; Frederick G. Stevens, Kingswood, Bristol ; George G. Stopford-Taylor, L.K.Q.C.P.I., Liverpool ; Arthur Jas. Sturmer, L.R.C.P.Lond., Calcutta ; Eustace Maclean Swanwick, Torrington Square ; Robert Thomas Thomas, East Looe, Cornwall ; Peter J. Thomson, Harrington Street ; Otho R. Travers, L.S A., Cheam ; Frank Wollaston Trevor, M.B.Aberd., Great Coram Street ; Arthur Turle, L.S.A., Taunton ; Wm. Henry Twort, L.S.A., Upper Canton Place ; W. M. Vores, L.S.A., Yarmouth ; Fred. Watts, Plymouth ; Chas. F. Webb, Stockwell ; George F. Whately, L.S.A., Great Berkhampstead ; C. W. Wilson, L.M., Durham, Newcastle-on-Tyne ; Joseph Henry Wilson, Stamford ; Chas. Edward Winckworth, Great Bircham, Norfolk ; George Jeremiah Briggs, Hull.

QUEEN'S UNIVERSITY IN IRELAND.—A public meeting of the Queen's University for conferring degrees, was held on July 6th, at Dublin Castle.—The degrees of Doctor of Medicine, Master in Surgery, and the Diploma in Midwifery, were conferred on the following gentlemen.

Adderley, John (Cork), M.D., C.M., and Midw. Dipl.
Breton, William E (Cork), M.D., C.M., Midw. Dipl.
Brooke, William, B.A. (Galway), M.D.
Gooper, Charles (Cork), M.D.
Crofts, James (Cork), M.D., Midw. Dipl.
Davis, William (Galway), M.D.
Dempsey, Alexander (Galway), M.D.
Fitzgibbon, Gerald (Cork), M.D.
Greeny, John P. (Cork), M.D., Midw. Dipl.
Gunn, Christopher (Cork), M.D., C.M., Midw. Dipl.
Harvey, Charles A., B.A. (Cork), M.D., M.S., Midw. Dipl.
Haines, Charles, B.A., M.D. (Cork), Midw. Dipl.
Loane, Thomas (Cork), M.D., C.M.
McCoulrey, David (Belfast), M.D., C.M. Midw. Dipl.
Magill, James, B.A., M.D. (Cork), Midw. Dipl.
McIver, William (Belfast), M.D., Midw. Dipl.
Mullane, Timothy (Cork), M.D., C.M., Midw. Dipl.
Munro, Michael (Belfast), M.D.
Moran, James, B A., M.D (Cork), C.M., Midw. Dipl.
Morris, John James, M.D. (Galway), C.M.
O'Connor, P. P. Fenelon, B A. (Galway), M.D., C.M., Midw. Dipl.
Ross, William, B.A. (Belfast), M.D., C.M., Midw. Dipl.
Tidbury, Robert (Cork), M.D., Midw. Dipl.

The following candidates were reported as having passed the second University examination in Medicine.

John P. Balbirnie, Belfast ; Robert Beattie, Galway ; David Bradley, Belfast ; James F. Brodie, Galway : George H. Bull, Cork ; Wm. F. Carmody, Cork ; William Coates, Cork ; Jephson Connell, Cork ; John J. P. Coonilliac, Cork ; Patrick Dempsey, Belfast ; Robt. Esler, Belfast ; Francis Meagher Geoghegan, Galway . George T. Goggin, Cork ; Charles Good, Belfast ; James J. Gorham, B.A., Galway ; H. C. Kirkpatrick, Belfast ; George Latour, Cork : William M'Afee, Galway ; James Thomas M'Namara, Galway ; Edward George Marks, Galway ; Chas. F. Marks, Galway ; Samuel D. Martin, Belfast ; Robt. Moore, B.A., Belfast ; James Moorehead, Belfast ; Edmund Murphy, Belfast ; Francis H. S. Murphy, Cork ; Channing Neil, Belfast ; George F. Nicholson, Galway ; Michael R O'Connor, Cork ; Wm. S. Paterson, Cork ; Wm. D. Power, Cork ; Wm. A. Quayle. Belfast ; Chas. K. Tanner, B.A., Cork ; Wm H. Thornhill, B.A., Cork ; John Wade, Galway ; James O'B. Williams ; Wm. C. Williamson, Cork ; Daniel Wilson, B.A., Cork.

The following candidates were reported as having passed the first University examination in Medicine.

Charles Allen, Belfast ; Alfred Allen, Belfast ; William Allen, Galway ; Thomas Archer, Belfast ; Charles Henry Bennett, Cork ; Archibald Bland, Cork ; Wm. A. Bracken, Belfast ; John Carmody, Cork ; Michael Collins, Cork ; Peter Cullinane, Cork ; J. Dunbar Dickson, Galway and Belfast ; John S. Dobbyn, Galway ; Robert E. Donovan, Cork ; Hugh Latimer Donovan, Cork ; Michael Dundon, Cork : Charles Fenwick, Belfast ; Alexander Fraser, Belfast ; Charles Hall, Belfast ; Patrick C. Hickey, Cork ; Augustus P. Hills, Cork ; Edwin J. Kennedy, Cork ; Michael J. Lyden, Galway ; Sydney W. M'Ilwaine, Belfast ; Samuel J. B. M'Kinney, B.A., Galway ; Lysander Maybury, Galway ; Alfred H. Miller, Cork ; Hugh Montgomery, Belfast ; Edward H. Moore, Galway ; Albert E. O'Connell, Cork ; Jerome Eugene O'Sullivan, Cork ; Thos. F. Riordan, Cork ; Wm. Rowney, Belfast ; John J. Thomas, Galway ; Patrick O'Connor, Galway.

The following candidates were reported as having passed in special subjects.

John J. Adams, Belfast ; James Franklin Allen, Cork ; James Fisher Anderson, Belfast ; Henry B. Beamish, Cork ; Roger Bickerstaffe, Belfast ; William A. Burgess, Cork ; Robert J. Camac, Belfast ; Martin F. Cleary, Cork ; George Comyn, Galway ; J. L. Curtin, Cork ; George Dougan, Galway ; Thomas G. Emerson, Galway ; Turner J. Fisher, Belfast ; James Guthrie, Belfast ; James Hamilton, Belfast : John Shaw Hayes, Galway ; Joseph Henry, Belfast ; John Holmes, Cork ; Jonas Howe, Cork ; John Hughes, Belfast ; William S. Irwin, Galway ; Wm. Jennings, Cork ; Wm. J. Lyndham, Galway ; Ed. C. M'Carthy, Cork ; Henry M'Clure, Belfast ; Mark Anthony M'Donnell, Galway ; Alfred H. Miller, Cork ; John Mulrennan, Cork ; Joseph Parker, Galway ; John F. Fitzgerald Parr, Belfast , Thomas D. Popham, Cork ; Martin Quirk, Galway ; David R. Ross, Galway and Belfast ; Michael R. Ryan, Cork.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At examination meetings of the College, held on Tuesday, Wednesday, and Thursday, July 14th, 15th, and 16th, 1874, the following candidates obtained the Licence to practise Medicine.—Those to whose names (*m*) is affixed, also obtained the Licence to practise Midwifery.

Adams, Andrew Fergey
Andrews, John Hall
Bark, John
Eaton, Joseph (*m*)
Gordon, Samuel Thomas
Heffernan, William K. (*m*)
Keays, William (*m*)
Lamprey, Joseph John (*m*)
Lyon, Richard Hawtrey
Macnamara, Charles Edward (*m*)
Morris, David Williams
Newsham, Francis
Norman, Conolly
Orr, John Augustine (*m*)
Rainsford, William John Read (*m*)
Rooney, James (*m*)
Shannon, Patrick Aloysius
Smith, William (*Clerk*)
Stewart, David Dunn
Stone, Ralph
Walter, William (*m*)
Woodlock, Arthur

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 30th, 1874.

Allen, John Edward, Bollington, Cheshire
Bartlett, Henry, Great Dover Street, S.E.
Gawith, James Jackson, 142, Lancaster Road, W.
Hallam, Walter, Sheffield
Hobbes, Charles Edward, Bidford, Redditch
James, John, Aberystwith
Snell, George, Jersey
Wilkinson, Auburn, Tynemouth, Northumberland

The following gentlemen also on the same day passed their primary professional examination.

Bower, Ernest Dykes, Leeds School of Medicine
Edwards, Roger, University College Hospital
Fisher, Thomas, St. Thomas's Hospital
Gathergood, Benjamin William, Guy's Hospital
Lush, John Self, St. Thomas's Hospital
Stocker, Charles Joseph, London Hospital
Thompson, Harold, St. Bartholomew's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABERDEEN, City of—Public Analyst: 2s. 6d. to 10s. 6d. per analysis, and £25 for fitting out Laboratory. Applications, 10th instant, to James Valentine, Clerk of Police.

ARGYLE and BUTE DISTRICT LUNATIC ASYLUM, Lochgilphead—Medical Superintendent.

ARMY MEDICAL DEPARTMENT—Surgeons. Applications, 10th instant, to Sir W. M. Muir, Director-General.

BIRMINGHAM GENERAL DISPENSARY—Additional Resident Surgeon; £130 per annum, rising to £150, £30 per annum for cab-hire, furnished rooms, etc. Applications, 29th instant, to A. Forrest, Secretary.

DOWNPATRICK UNION, co. Down—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Strangford Dispensary District: £100 per annum, and fees. Applications, 13th instant, to Samuel Seed, Assistant Secretary, Ballylena, Strangford.

DURHAM UNIVERSITY COLLEGES OF MEDICINE and PHYSICAL SCIENCE, Newcastle-upon-Tyne—Professor of Biology combined with Physiology: £450 per annum, and a portion of fees. Applications, 15th instant, to T. Wood Bunning, Secretary to College of Physical Science.

GARSTANG RURAL SANITARY DISTRICT—Medical Officer of Health: 21s. per case, and 6d. per mile each way. Applications, 27th instant, to Thomas Noble, Clerk.

HULL and SCULCOATS DISPENSARY—House-Surgeon.

HULL GENERAL INFIRMARY—Resident Assistant Surgeon.

INDIAN MEDICAL SERVICE—Fourteen Surgeons. Applications, 10th instant, to T. P. Pears, Major-General, Military Secretary.

INVERNESS DISTRICT ASYLUM—Assistant Medical Officer: £70 per ann., apartments, etc. Applications, 19th instant, to Dr. Aitken.

LIVERPOOL LADIES' CHARITY and LYING-IN HOSPITAL—Medical Officer for the North District. Applications, 10th instant, to the Secretary.

LUNESDALE UNION, Lancashire—Medical Officers for Hornby No. 1 District and the Workhouse.

MANCHESTER GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN—Assistant Physician: £300 per annum. Applications, 22nd August, to the Chairman.

MULLINGAR DISTRICT LUNATIC ASYLUM—Visiting Physician. Applications, 13th August, to Dr H. Berkeley, Resident Medical Superintendent.

NEWCASTLE-UNDER-LYME UNION—Medical Officer for the Whitmore District.

NORWICH LUNATIC ASYLUM—Resident Medical Superintendent: £150 per annum, furnished residence, maintenance, etc. Applications, 15th instant, to the Committee of Visitors.

QUEEN'S HOSPITAL, Birmingham—Dispenser: £100 per annum. Applications, 17th instant, to the Secretary.

SHEFFIELD GENERAL INFIRMARY—Assistant House-Surgeon: £65 per annum, board, lodging, etc. Applications, 11th instant, to the Medical Staff, care of Joseph Kirk, Secretary.

SOUTHAMPTONSHIRE LUNATIC ASYLUM, Knowle—Junior Assistant Medical Officer: £80 per annum, increasing to £100, board and lodging. Applications, 15th instant, to Dr. Manley.

STOURBRIDGE DISPENSARY—House-Surgeon and Secretary: £120 per annum, furnished rooms, and occasional allowances for Dispenser and horse-hire. Applications, 18th August, to J. B. Shepherd, Honorary Secretary.

STROMNESS, Orkney—Parochial Medical Officer. Applications, 20th instant, to the Chairman of the Parochial Board.

WALSINGHAM UNION—Medical Officer for the Wells District.

WEST NORFOLK and LYNN HOSPITAL—House-Surgeon and Secretary.

WOODBRIDGE UNION, Suffolk—Medical Officer for No. 5 or Walton District.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Clendinnen, Wm. Ellis, L.R.C.S.Ed., etc., appointed Medical Officer of Health to the Urban Sanitary District of the Borough of Stafford.

Pringle, Henry Turnbull, M D., appointed Medical Superintendent of the Glamorgan County Asylum, Bridgend, *vice* D. Yellowlees, M.D., appointed Physician-Superintendent of the Glasgow Royal Asylum.

*Spencer, W. H., A.M., M.B.Cantab., appointed Lecturer on the Principles and Practice of Medicine at the Bristol Medical School, *vice* *E. L. Fox, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

Bleckley.—On August 3rd, at Woolston, Hants, the wife of Surgeon-Major T. M. Bleckley, M.A., M.D., LL.B., C.B., of a daughter.

DEATHS.

Carlill, John B., M.D., at Weymouth Street, aged 60, on July 22nd.

Hartford, Richard A H., Esq., in the West Indies, on board the Royal Mail steamship *Belize*, of which he was Surgeon, on June 7th.

Martindale, John Walker, M.R.C.S.Eng., L.S.A., at Placefell House, Patterdale, Westmorland, aged 35, on July 21st.

A public meeting has been held at the Peel Institution, Accrington, at which it was resolved to establish a Provident Dispensary.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

N. S. (Dundee).—We have received a copy of the paper containing a notice of our correspondent's remedy, but we have no faith in the material on which his observation is founded.

Notwithstanding that nearly every number of the British Medical Journal published this year has included a supplement of eight pages, and that one-third more of original matter has been published this year in the British Medical Journal up to the present date than in any former year, we have still a considerable accumulation of manuscripts from town and country contributors. We would therefore especially ask our correspondents to compress, as much as possible, any communications with which they may favour us, with a view to their publication with the least possible delay.

Errata.—In Dr. Maclean's artitle on Hepatic Abscess in last week's Journal (p. 138), at line 3, for "Bungalore" read "Bangalore"; at line 5, for "Kamun-Duroy" read "Ramun-Droog"; and at line 6 for "Ballary" read "Bellary". In Dr. E. Haward's letter on the Treatment of Prolonged Sleeplessness (p. 162, col. 1), in the first line of the second paragraph, for "relative" read "sedative".

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Printing Office, 37, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

T. B.—A registered practitioner, under any of the medical qualifications mentioned in the Medical Act (1858), is entitled to recover in a court of law for medicines supplied to his patients.

Anæsthesia by Injection of Hydrate of Chloral.

Sir,—I notice in the Journal of July 18th that the production of anæsthesia by the injection of hydrate of chloral into the veins has been under discussion in the Paris Academy of Medicine; the proposition having been made by a French surgeon, M. Oré, in whose hands it had proved successful in the treatment of traumatic tetanus. One of the points at issue was, whether the hydrate of chloral really did cure that disease. No one, probably, beyond M. Oré himself, has as yet had any experience in the effects of the drug administered in the way he proposes; and, as it has been condemned by the Academy, probably no further experiments will be made, at least for the present, but I can unhesitatingly bear strong testimony to its curative powers administered in the usual manner. About two years ago, a severe case of gunshot-wound of the lower extremity came under my care in a tropical climate: during the treatment of the case, the patient suffered from two distinct attacks of tetanus. In the first, the muscles of the face were rigid, and food and medicine could only be administered through a passage between the teeth: the second attack was of a milder character, but sufficiently pronounced. In both attacks, the symptoms yielded rapidly to the exhibition of chloral hydrate in half-drachm doses, repeated every two hours. Amputation was subsequently performed, and the man made a good recovery. The fact of two attacks having been cured through the agency of this drug forbids a suspicion of the occurrence having been accidental, and I should strongly recommend its use in preference to other vaunted remedies, such as Calabar bean, which I have seen on more than one occasion prove valueless. I am, etc.,

W. J. Eames, L.K.Q.C.P., Staff-Surgeon (2nd) Royal Naval Hospital.

Haslar, July 22nd, 1874.

The Contagion of Febrile Diseases.

Sir,—Can you or any of your readers give me information on the following points connected with contagion or infection? I am, in my practice, frequently asked questions which hinge on these points, and find myself not able to give satisfactory answers.

1. The *relative* infection and the *duration* of infections in the eruptive fevers.

2. Whether, in the cases one hears of, of one person catching scarlatina from another with measles, it is due to an error of diagnosis, or to there being really the possibility, allowing for constitutional idiosyncrasies.

3. Whether B. can transfer scarlatina or diphtheria, for instance, from A. to C., *without* being himself affected with the disease in question.

4. Whether it is not probable that *all* fevers are contagious, but varying in degree; and that enteric fever is generally considered non-infectious on account of a very low rate of communicability. I am, etc., Vir Tardus.

⁂ Information on most of the points enumerated in the above letter will be found in the concluding article of the last volume of *Transactions* of the Epidemiological Society, published by Hardwicke, 192, Piccadilly. The duration of infection is there shown to be longer in scarlet fever than in small-pox or measles; for infection is sooner over in these latter diseases, with a long incubation-period, and commences in them before the eruption is thrown out. At this time, it is very intense; so that infection is more frequently propagated in the early part of these ailments, and towards the end of scarlet fever. Moreover, when separation is effected, a week suffices to show that a child has escaped scarlatina and diphtheria, while it requires a fortnight for small-pox or measles to make their appearance.

2. The length of incubation often serves to distinguish scarlet-fever from measles. It is impossible to catch scarlet fever from measles, or *vice versâ.*

3. These ailments are easily propagated by means of fomites carried by healthy persons or by clothes. Persons suffering a modified attack of either of these diseases may convey it in a severe form to others.

4. All the acute specific diseases are contagious or communicable: but not only the degree of communicability, but the mode of conveyance, vary. The poison of enteric fever, being chiefly eliminated by the intestinal glands, and swamped in the alvine discharges, is thereby prevented from giving off much infection in the sick-room: but its communicability by means of water, into which these evacuations have found access, may be very widely extended, and must be reckoned at a high rate. The paper referred to above, on the Period of Infection in Epidemic Disease, is published in a separate form by Churchill.

To the Senate of the University of London.

Greek at the Matriculation Examination.—Will the withdrawal of Greek, as a compulsory subject for examination at matriculation, increase or impair the œcumenical scope of our metropolitan university? Will the future scientific graduate take kindly to his "ologies", in absence of all Attic knowledge, and resort to a translation from Schrevelius for exegetical solution, or to a sixpenny handbook on Athenian terminology, published by Routledge? or, on the contrary, fabricate, like our American relations, simpler vocables in ambiguous Saxon? Will the definitions of *anatomy, physiology, chemistry, botany, chirurgery, pathology, psychology, therapeutics, pharmacy, gynæcology, pædiatrics, dermatology, dietetics, biology, ontology, zoology, palæontology, anthropology, ethnology,* not to mention their innumerable offshoots, to wit, *geology, philology, technology, teleology, ornithology, ichthyology, entomology, osteology, neurology, myology,* etc., be clearly comprehended, or will less formidable words be substituted, with an—*apology?* Will the ignorant and bewildered *neophyte* distinguish between *pneumatic* and *numismatic, heliogenous* and *Heliogabalus, hypertrophy* and *hypochondrium?* and will he not utterly despair at the meanings of of *telangiectasis, batrachomuomachia,* and *heautontimoroumenos?* The unhappy medical tyro—without a root or a stump to guide him—must at the commencement of his collegiate career gravely listen to a lecture on the cranium, where *pterygoid, masseter, mastoid, petrous, carotid, hypoglossal, sphenoid, ethmoid, parotid, arachnoid, styloid, ephippium, ophthalmic, optic, trochlearis, sclerotic,* mingle in delightful profusion. In the evening, of course, *anatomy,* from its prominence in the primary examinations, will again absorb his studies, and he will have the satisfaction of interpreting the words *ischium, astragalus, olecranon, blastema, scaphoid, trachea, homogeneity, œsophagus, cotyloid, peritoneum, sigmoid, anastomosis,* etc., in sublime unconsciousness of their arbitrary application and of their derivation. Meanwhile, in *chemistry* he will encounter *iodine, pyrophorus, eudiometer, bromine, catalysis, hydrogen, chlorine, barometer, electrode, calomel, dimorphism, anode, cathode, isomerism*, and *diathermanous*, as samples to refresh his bedazed intellection : and in *botany*, *cryptogams, thallogens, acrogens, stigmata, prosenchyma, endogens, exogens, tetradynamia, syngenesia, dodecandria, rachis, stomata, perigynous, polyadelphous, antitropal, monochlamydeons, mericarp*, may be cited amongst the almost infinite *technical* terms, as a mild distraction to his convolutional activities.

At a later stage, in *surgery*, *angeioleucitis, opisthotonos, epispadias, exomphalos, orthopædy, necræmia, onychia, oscheocele, hæmatoma, ozæna*, serve to impress him with the dignity of his future profession, if the *neologisms* can be mentally arranged and assimilated ; and references to that interesting organ, the eye, will be garnished with *symblepharon, lagophthalmos, leucoma, entropium, staphyloma, iridectomy, coredialysis, glaucoma, choroiditis, distichiasis, pterygium, mydriasis, asthenopia, hypopium, amblyopia*, and *amaurosis*.

Will the scandalised professors, in alluding to *arytenoid, phanerogamus, polydipsia*, and *anasarca*, be greeted with irreverent shouts from sciolous auditors mistaking the terms for a familiar rendering of Christian names appertaining to male and female students, pursuing their classes in literary companionship, if not in amity, north of the Tweed?

Again, when the *clinician* refers to *symptoms, phenomena, ætiology*, and *diagnosis;* to *hydrocephalus, spanæmia, encephalitis, antiphlogistic, prophylaxis, œdema, phlebotomy, cephalalgia, hygiene, aphasia, plethora, hydatids, parenchyma, hepatitis, pythogenic, hypinosis, paraplegia, ataxy, psellismus, blennorrhagia, cacoplastic, polysarcia, trichophyton, alopecia, atelectasis, anæsthesia;* or speaks of the action of *eccoprotics* on the *colon*, and of the operation of *drastics, hydragogues, cathartics*, and *cholagogues*, with their indirect influence as *emmenagogues* and *ecbolics*, as well as their special uses for *duodenum, ileum*, and *pancreas;* and divides the *hypodiaphragmatic* space into its nine regions, the retentive student, virgin of Greek, must strive to recollect and localise *epigastrium, hypogastrium*, and adjacent boundaries, with the contained *epiploon, splanchnic* nerves, and *mesentery*, retaining also a vivid sense of the meaning of the tissues so profoundly designated—unpuzzled and serene for his examinations at College, Hall, and University, if he have ambition and hardihood to affect the last.

Synchronously, at the hospital, the *thermometer, urinometer (urometer?), stethoscope, pleximeter, sphygmograph, laryngoscope*, will engage his attention, supplemented by *autopsies* and *microscope* to enlighten him as to *hypertrophous, atrophous, epithelial, sarcomatous, atheromatous, carcinomatous, scirrhous, colloid, encephaloid, melanotic, myeloid, osteoid*, and other *heterologous* formations and infiltrations.

Mayhap, tired in his vain attempts to remember at times the exact force and precise meaning of these sesquipedalian expressions, he will attempt to solace himself by the perusal of a non-professional work or newspaper, when he will be confronted with *telegram, acoustic, orthography, eccentricity, diameter, anonymous, physics, chronology, isosceles*, etc. ; or should he recreate himself with an elementary treatise on *geology*, he will meet with (to him) the incomprehensible words *megatherium, encrinite, plesiosaurus, cainozoic, oolite, mastodon*, and *pterodactyle*, until he curses the Senate in bitterness for abolishing compulsory examination in Greek at matriculation, whereby a delusion is established in the mind of the student that he can become an educated practitioner and gentleman by occasional reference to Mayne's *Dictionary* and reiterated cram.

A MEMBER OF CONVOCATION (M.B.)

THE SONG OF THE UNION DOCTOR.

With looks all drabbled and spattered,
With face weather-beaten and cold,
An union doctor rode along—
He was prematurely old.
Tramp, tramp, tramp,
In hail, and snow, and rain ;
And he sighed, "An union doctor I",
And this was his sad refrain.

"Work, work, work !
Each morning has its toil ;
And work, work, work !
Work by the midnight oil.
It's O to be a slave
To Poor-law Guardian's rule ;
The day I first put on their yoke
I was an egregious fool.

"Work, work, work !
Work for both hands and head ;
Work, work, work !
Till the numb brain feels like lead.
Oh, was not I a fool?
For well I know the wage—
A menial's pay whilst young and strong,
And—nothing for old age,

For sixty pounds a year,
With medicines to provide ;
It does not keep my serving lad
And the horse on which I ride.
Tramp, tramp, tramp,
Amongst the desolate poor !
How little they think, when they envy me,
That I almost live next door.

"And yet amongst all those
Who should be the poor man's friend,*
I fear I am the only one
Who an ear to their sorrows lends :
But I cannot mend their woes,
And it grieves me much to say
'I cannot afford the costly drugs
That would drive your pains away.'

"And how can I say to them,
'Drugs are not fit for you,
But bread and meat and wine,
And to live where the sky shines blue?'
How could I tell them this,
When I could not offer a bone,
Lest I take the bit from the hungry mouths
Of the dear loved ones at home?

"Work, work, work !
With no word of thanks or praise,
But only a summons before the board
On Board of Guardians' days :
With no word of thanks or praise,
Except from the loving poor,
Whose 'God bless ye, doctor', ever and aye
Follows me from the door.

"'Tis only when I think
They are His especial care,
That I trust and turn and pray,
And drive away despair ;
And I work, work, work,
Through rain, and wet, and cold,
And hope that things perhaps may mend
By the time that I am old.

"And oh ! I fondly hope
For a good and happy time,
When want will not be held as bad,
As bad or worse than crime ;
When the poor, and sick, and aged,
With criminal will share
The warmth, food, and clothes,
Of our rulers' jealous care.

"And that a time may come,
I fondly trust and pray,
When the union doctor's horizon
Shall beam with a brighter ray :
When those he serves shall learn to think
He is not a mere machine,
But a man who loves ; and those he loves
On his support must lean."

With boots all drabbled and spattered,
With face weather-beaten and cold,
An union doctor rode along—
He was prematurely old.
Tramp, tramp, tramp,
In hail, and rain, and snow,
And he dwelt with a sad and weary sigh
On an union doctor's woe.

Note by one who looked over the author's shoulder.—If the union doctors would join in an union of doctors, the union of doctors could very soon alter the position of union doctors, and be masters instead of servants. ESCULAPIUS.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest :—The Birmingham Daily Gazette, Aug. 3rd ; The Lincoln Gazette ; The Lincoln, Rutland, and Stamford Mercury ; The Leeds Mercury ; The Blackburn Times ; The Leicester Advertiser ; The Cork Constitution ; The Lincolnshire Chronicle ; The Carlisle Patriot ; The Macclesfield Advertiser ; The Auckland Times and Herald ; The Northampton Mercury ; The Knaresborough Post ; The Wrexham Advertiser ; The Northern Daily Express ; The Eastern Daily Press ; The Western Daily Mercury ; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from :—

Dr. E. Copeman, Norwich : Dr. J. Russell Reynolds, London ; Dr. J. Matthews Duncan, Edinburgh ; Dr. Fleetwood Churchill, Dublin ; Mr. W. Eassie, London ; Mr. Wm. Cadge, Norwich ; Dr. Edward Mackey, Birmingham ; Dr. J. Crichton Browne, Wakefield ; Dr. S. S. Dyer, Ringwood ; Mr. Hamilton, Dublin ; Our Edinburgh Correspondent ; Mr. Millikin, London ; Mr. North, York ; Constant Reader ; Mr. J. W. Cayley, Norwich ; Mrs. Martindale, Pattendale ; Dr. T. Cole, Bath ; Dr. McKendrick, Edinburgh ; Dr. J. B. Wilson, London ; Mr. Nelson Hardy, Ilminster ; Dr. H. W. Rumsey, Cheltenham ; Mr. J. R. Williams, Brecon ; Mr. J. A. Giles, London ; Mr. Philip E. Hill, Crickhowell ; Our Manchester Correspondent ; A Dublin Graduate ; Mr. A. T. Norton, London ; Mr. Edward B. Adams, London ; Dr. J. C. Weddell, Birmingham ; Mr. J. B. Spence, Earlswood ; Dr. John Bassett, Birmingham ; Dr. Haward, London ; Dr. J. Hughes Bennett, Edinburgh ; Dr. Ransome, Bowden ; Dr. Dobell, London ; Dr. James Edmunds, London ; Mr. G. F. Duffey, Dublin ; Dr. W. H. Spencer, Clifton ; An Associate ; Dr. Molony, Cambridge ; Mr. A. Pythias Turnell, Ipswich ; M.D. ; The Secretary of Apothecaries' Hall ; The Registrar-General of England ; The Registrar-General of Ireland ; Mr. Wanklyn, London ; The Registrar of the Medical Society of London ; Mr. Eastes, London ; Dr. Joseph Bell, Edinburgh ; Dr. Edis, London ; Mr. W. P. Swain, Devonport ; Dr. Farquharson, London ; Our Dublin Correspondent ; Mr. Chauncy Puzey, Liverpool ; Dr. W. Munro, Cupar Fife ; Dr. Rogers, London ; A. B. ; Dr. Ward Cousins, Southsea ; Dr. Vawdrey Lush, Weymouth ; Dr. F. Bateman, Norwich : Mr. J. Ashburton Thompson, London ; Our Dublin Correspondent ; Dr. W. L. Lane, Dumfermline : Our Paris Correspondent ; the Director-General of the Medical Department of the Navy ; ralty ; Dr. Harland, Wadhurst ; Mr. W. E. Clendinnen, Stafford ; Mr. S. Dalrymple, Norwich ; Dr. Bleckley, Woolston ; A Member ; etc.

BOOKS, ETC., RECEIVED.

On the Use of Strychnine in Epilepsy and Kindred Nervous Affections. By Walter Tyrrell, M.R.C.S., Malvern.

Extracts from a Book kept at the Infirmary.

Report upon the Sanitary Condition of Scarborough.

The Muscles of the Human Body, with their Vascular and Nervous Supply. By C. J. Manning and F. H. Elliott. London : H. K. Lewis. 1874.

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* *I.e.*, official.

PRESIDENT'S ADDRESS,

DELIVERED AT

THE FORTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

Held in NORWICH, August 11th, 12th, 13th, and 14th, 1874.

BY

EDWARD COPEMAN, M.D.,
Senior Physician to the Norfolk and Norwich Hospital.

GENTLEMEN,—The experience of the last few years has amply proved that the difficulty of presenting a suitable address at an Annual Meeting of this Association increases with the increase of the Society; although it must be acknowledged that this fact has been a great stimulus to exertion, and that the efforts of late Presidents have been attended with a considerable amount of success. Still all have felt, if we may judge from their expressions, that it is no mean task to compose an address which may satisfy the expectations of so large a number of intellectual and talented men as generally assemble on these occasions.

I know it is often looked upon as a mere matter of formality to plead incapacity for so responsible an undertaking; but I can most honestly assert that I have experienced very serious misgivings not only as to my power of writing a proper and interesting address, but also as to my capacity for performing all the onerous duties attaching to the Presidency of this great and important Association. When the Association numbered only 1500 members, the President of the day remarked upon the giddy height at which he was placed, and even then dreaded a fall; how much more must I, without half his nerve and daring, contemplate my position with dismay, lest I should fail to prove myself worthy of the very great honour which you have in your kindness imposed upon me! Gentlemen, I promise faithfully to do the best I can for the furtherance of the interests of our Society, and, as a very old member of it, I claim, and am sure I shall receive, your willing and valuable support. And now, before I proceed further to occupy your attention, let me say, in the name of my professional colleagues and neighbours, as well as of myself, that we feel much honoured by your presence, and shall be most happy to do everything in our power to render your visit to our old city pleasant and agreeable.

Our county was not in former times favourably circumstanced for the promotion of social intercourse with other parts of the kingdom; before the introduction of railways, there was much difficulty in reaching our corner of England; and, had it not been for partridges and a well-acknowledged hospitality towards friends and relations, we should have been left very much to our own devices, and obliged to rely upon our own resources for instruction and amusement. But Norfolk has produced great, very great, men in all the marked positions of life. We can boast of our Nelson, to whose memory a statue has been erected in the Cathedral Close, opposite the school in which he was educated; and several of his trophies are preserved in this city, and will be open to your view. I could mention also several other names belonging to Norfolk, who have conspicuously distinguished themselves in the naval service of their country.

In the church we have had many bishops of renown, including Dr. Richard Corbet, of humorous memory. The most prominent of the bishops of former times was Losinga, who established the see at Norwich and founded the Cathedral, 1094: William Bateman, who was bishop in 1343, was a native of Norwich, and founded Trinity Hall, Cambridge; after the Reformation, many men of note occupied the bishopric, one of them being Dr. Matthew Wren, father of the celebrated architect, Sir Christopher Wren; Charles Trimnell, D.D., was a native of Norwich, and greatly assisted the Protestant emigrants who fled to his diocese from the Palatinate on the Rhine to escape the exactions of the French. Many of these were artisans, and greatly increased the general welfare of the city and county. Dr. George Horne, the talented author of a *Commentary on the Psalms*, was Bishop of Norwich in 1790; and in the present century we have had for bishops the Right Hon. C. M. Sutton, translated to the Archbishopric of Canterbury, Drs. Bathurst, Edward Stanley, Samuel Hinds, and our present most worthy bishop, the Hon. J. T. Pelham, who was installed at the Cathedral Church in this city on the 26th of June, 1857, and has since won for himself the love and respect of all with whom he has to do. His unavoidable absence from Norwich at the present time is a subject of much regret and disappointment. We have had great scholars not a few. The learned Porson was born at East Ruston in Norfolk; I was acquainted with his sister, who devoted much of the latter years of a very useful life to works of charity, and died at a mature age, beloved and respected by all who had the privilege of her acquaintance. As philanthropists, we can boast of the Buxtons, Gurneys, Mrs. Fry, Mrs. Opie (the daughter of a Norwich physician), and others whose names would be familiar to you. But I must not occupy your time further by enumerating the names of persons of note belonging to this county, save of those connected with our own profession. The celebrated Sir Thomas Browne was a Norwich physician; we have his portrait in the board-room of our hospital, and his skull in our hospital museum. The eccentric Dr. Messenger Monsey was the son of a Norfolk clergyman, and well known as Sir Robert Walpole's Norfolk Doctor. The Aldersons are a Norfolk family; the Baron was born at Yarmouth, and one of them practised here as a physician. Dr. John Kaye, or Caius, of Cambridge notoriety, was born in Norwich in 1510. The late Mr. Martineau was surgeon to our hospital for many years, and was regarded as one of the greatest lithotomists of his day; and I may add the names of Rigby, Dalrymple, Lubbock, and Crosse, the last having been one of the foremost of provincial surgeons and one of the founders of this Association.

The manufactures of our city differ in many respects from those for which in olden times Norwich was renowned; and "the sound of the shuttle and the hum of the spinning-wheel", formerly audible in every street in the city and surrounding villages, are seldom heard. But still, at the present day, Norwich is an important manufacturing city. Crape is extensively and beautifully made by a large firm here; mustard and starch of the finest description are produced on a very large scale by Messrs. Colman, a firm, I need scarcely remind you, that has literally a world-wide reputation, and whose factory, I am happy to say, will be open to the view of those who may desire to avail themselves of the opportunity. The boot and shoe trade is also very active in this city, and some of the establishments are well worthy of inspection. Our specimens of antiquity are numerous, and there is much to be seen in Norwich to gratify the taste of the antiquarian. We have a fine old castle; and a noble Cathedral, very beautiful of its kind, the peculiarities and interesting characters of which my friend Mr. Symonds (our late Precentor, and brother of the late Dr. Symonds of Bristol) has kindly offered to demonstrate to all visitors interested in the subject. For those who are fond of natural history, we can offer for inspection a remarkably complete collection of British and foreign birds, as well as many other objects of interest in our public museum. And last, though to our profession not least, we have a noble provincial Hospital, more than one hundred years old, containing a museum in which are displayed all the stones removed by operation since its foundation, as well as many unique specimens of morbid anatomy. The wards are large and handsomely appointed, and you may have an opportunity of witnessing some Norwich operative surgery.

We have no complete medical school in Norwich, not having a sufficient number of pupils to educate; but lectures are given by the physicians, and clinical instruction by the surgeons; our hospital-practice is recognised by all the principal examining bodies, and our Norwich students gain an amount of useful elementary knowledge which enables them to compete successfully with others in examinations in London and elsewhere. Many who commenced their professional studies in Norwich have risen to considerable eminence in after life, and several of our hospital pupils have recently gained very high prizes in the London University and schools. I think it must be admitted that provincial schools are capable of imparting an amount of useful knowledge in early professional life which forms a good preparation for future study in London; and that, although they cannot be expected to compete with the metropolitan, they should, nevertheless, be encouraged for the good they do in preparatory education, at a period of life when it may not be wise to place young men upon their own resources in a metropolis, and separate them from their parents and other family influences in so early a stage of their career.

Speaking of our hospital, it may not be out of place to refer briefly to a disease which, for the last year or two, has occasionally marred the surgical success usually belonging to that excellent institution. I allude to the frequent occurrence of pyæmia after surgical operations compared with what I remember in any former period of my long connection with the hospital. I am not going to discuss the question now, as I hope it will be thoroughly ventilated and commented upon in the surgical section; but it is a very interesting subject to us all; and, from its apparent analogy to certain puerperal conditions, it is especially so to general practitioners, whose time is always much occupied with obstetric engagements, where failure is most distressing and often detrimental to professional success in life. It fortunately happens that such occurrences, both in surgery and midwifery, are rare in country districts unless there be some very evident local cause to produce them, coupled with wilful neglect of the ordinary rules of hygiene; and although, with respect to surgery, the country surgeon, with his less frequent opportunities of exercising his hand and becoming familiar with surgical operations, can scarcely hope to acquire the sound judgment, confidence in his own powers, and the manual dexterity of the hospital surgeon, yet, with a good education and the possession of a fair amount of skill and knowledge, he may be encouraged by the fact, that the condition of his patient under operation or accident, with a body refreshed by country air and a mind cheered by the presence and kind attention of relations and friends, will be favourable to success; and the result will reward him for the anxiety with which he may have undertaken the management of an important surgical disease.

These remarks naturally lead to the consideration of the prevention of blood-poisoning and the diseases consequent thereon; and there can be little doubt but that the principal agents in favouring their occurrence are contaminated air and impure water. The subtle elements of this class of diseases, whatever they may be, find their entrance into the body by means of one or other of these agents; and, taking this for granted, it would seem that we ought not to encounter any insuperable difficulties in our endeavours to prevent them. But, although we are continually in one way or another attempting to accomplish this desirable end, we are, nevertheless, often meeting with disappointment. The question arises, are our efforts sufficiently combined and long continued to accomplish our object, or are we mistaken as to the proper means to adopt? Some are strongly of opinion that contaminated water is the principal medium of contagion; others that air impregnated with injurious substances is the most to blame. I believe that both are equally concerned in the matter; that water is often the recipient of morbific influences contained in the air, and thus conveys the germs of serious disease into the human body; and, *vice versâ*, that contaminated water may poison the atmosphere and cause disease in those who breathe it. It also appears to me that some diseases are propagated chiefly by the water we drink, and others by the air we breathe, and I would mention cholera as an example of the former, and scarlet fever of the latter.

The subject is one of paramount interest to us as a profession, and I venture to bring before you one or two facts in practice to exemplify its importance. In August, 1871, I was requested by a Board of Guardians in this county to visit a parish in which several deaths had occurred suddenly in a family, and to report to the Board my opinion as to the cause and nature of the invasion. The request came by telegram, showing the urgency of the case. The medical officer of the district was summoned to meet me, but circumstances prevented his doing so, and I had not the benefit of his assistance. It was satisfactory, however, that after the carrying out of the measures recommended to the Board, the disease made no further progress. I first visited a cottage, where the husband, three daughters, and one son had died within a few days, and a girl, sixteen years of age, and a boy of nine years were labouring under diphtheria; both were represented to me as better than they had been, but I thought the boy in great danger; and in a few hours he was dead. Under the same roof, but not in the same dwelling, there was a boy, nine years of age, with a severe attack of measles; four other children belonging to this family had very properly been sent away from home when the disease broke out next door. On inspecting the premises, I found a well near the back door without any cover to it, into which the children were in the habit of throwing all sorts of things, and out of which a chicken in a putrid state had been taken a few days before. At the bottom of the small garden was a privy used by all the inmates of the double tenement, and in a state well suited to propagate and intensify any fever from which those residing in the cottages might be suffering. It was very small, with an open space behind for the reception of the soil, covered only by a few sticks, and the stench from it was abominable. Moreover, it was only a few yards from the well, and could thus readily contaminate the water which was used for drinking purposes. I next went to a cottage situated at some distance from the other, where there was one child dead and another ill; and I should mention that one of these children had had communication with the cottages and children before-mentioned. But here, again, there was an open well, and near it a privy as foul and offensive as the one I have described. I brought home some water from the first well, and found that it contained sewage-matter rendering it unfit for use. I recommended that the privies be provided with proper bins, with lifting covers to admit the introduction of fresh mould or disinfecting powder to cover the soil; to have the wells covered so as to prevent the children from throwing improper things into them, as well as for the safety of the children themselves; to furnish the inhabitants with plenty of proper disinfecting powder, to keep them well supplied with good wholesome food, and to thoroughly cleanse and whitewash the cottages. This, Gentlemen, I quote as an instance of a disease primarily of a mild character (imported into the locality by a daughter who came home from service with a sore-throat), aggravated into malignancy by water poisoned by the sources I have pointed out as existing at the time. I will now take leave to adduce another serious instance of a disease becoming suddenly virulent owing to local circumstances, and probably depending more upon contaminated air than water. I have a very strong impression on my own mind that contagion in such cases is chiefly conveyed through the excreta of the invalid; and whether by water or air, will depend upon the peculiar circumstances connected with the locality.

The village in which the following occurrences took place was at the time healthy; there was no fever in the neighbourhood, and the house was a recently built parsonage of good dimensions, and placed on an apparently unexceptionable site. There was a water-closet within the house, well supplied with water from a large tank, its waste-pipe leading into a capacious well glazed drain just outside the house, which carried its contents underground a long way off, into a ditch too far removed to be hurtful. But there were also two privies with open arches, through which their contents passed into an oblong square dirt-bin, situated very near the back door of the house, and a very few feet from the large drain above mentioned, which might easily have been used for the purpose of carrying all the refuse of these privies, as well as of the water-closet, to a safe distance from the house. Unfortunately, this very obvious and desirable arrangement was overlooked by the builder; and, as one of these privies was used for the conveyance of all slops, etc., from the house, this bin, into which both fluid and solid refuse was admitted, was often very offensive. The family residing in the house consisted of the clergyman himself, his mother, his wife, six children (the eldest being about 14 years old), and several servants. The second son had been at school in a market-town many miles off; but scarlet-fever broke out there, and he was sent home. On his journey, he became chilly and faint, reached home with difficulty, and then exhibited the usual symptoms of scarlet-fever in a mild form, and recovered. Soon afterwards, two of the other children and a servant took the fever, and in less than a week all three died. On January 20th, I received the following note from the husband, the first intimation I had of what was going on. "I have lost two children and a servant by scarlet fever during the past week, and my wife is now attacked by it. The surgeon says she has no unfavourable symptoms; but I should like much for you to come over by an early train to-morrow." This was written on Sunday, January 19th, and, just as I was starting by train on Monday morning, I received another summons by telegraph. The distance was too great for me to arrive before the afternoon, and ere I got to the house I was told that the wife was also dead. On my arrival, a hearse was standing at the door containing the servant's coffin, and they were bringing a child's coffin out of the hall-door, to proceed with the other to the church for interment. The wife was lying dead on her bed; she had been dead an hour or two—a victim to the laryngeal form of the disease. The day before, she had a bright eruption, and seemed to be going on well; but afterwards lost her voice, and died suffocated. I was then asked to see another child, seized with the fever that very morning—a nice intelligent little boy of about six years of age. He was quite sensible, but pallid, cold, and complaining of pain in one side of his throat. The right tonsil was inflamed, but he could swallow, and took whey freely. His countenance bespoke the existence of a deadly poison in his blood; his pulse was very feeble, and, although he was kept near a good fire, was covered with warm blankets and had hot bottles to his feet, he remained cold and in a state of collapse. We applied turpentine round his throat, which he said relieved him; and, when I left in the evening, he was a little warmer; but I expressed my firm conviction that he was in great danger. The next evening, just in time for me to start by the mail train, I received the following telegram:—"The little boy is dead; the eldest son is taken; please to come by the first train." I arrived in the middle of the night, and found the eldest son sickening; but fortunately they had followed my advice to remove him to another house a few hundred yards from the parsonage. I stayed all night; and he was not worse in the morning, having neither eruption nor sore throat, although occasionally sick. He went through a mild form of the disease, and recovered. Our next care was to empty the parsonage-house, destroy all stained linen, and remove the remaining inmates to a distance at the sea-side; for the double purpose of removing them from the poisonous locality, and of taking immediate and decided steps to cleanse and purify what might be fairly termed a pest-house. We are unavoidably doomed, as a profession, to witness many sad scenes of misery and distress—scenes which harrow the feelings, depress the mind and spirits, and sadly tax both the inner and outer man; but, of all such that I have witnessed in a long professional life, nothing so awful or overwhelming can I remember as this sudden destruction of five members of a family in a respectable sphere of life, living in a healthy district, in a house not more than two years old, and with all the comforts about them which, in most instances, tend to ensure security against the inroads of epidemic disease. What could have imparted such malignancy to a disease not violent nor fatal to any great extent in the district in which it originated? The first child attacked had it in a mild form, and recovered; but some local cause, propitious to the concentration of the poison essential to the disease, quickly rendered it as pestiferous as the plague, and brought sudden sorrow and calamity into a household previously healthy, and little expecting so dreadful a visitation.

This local cause I believe to have been the exposure of the excretions of the sick in the bin before described, where, mixed with other refuse, both animal and vegetable, and water, they imparted to the exhalations arising from the whole a virulence so intense as to be almost suddenly fatal to those who were subjected to its influence. Had it not been for the sad oversight of not leading the contents of the privies into a capacious drain close by, made, as it were, for the very purpose, possibly all these lives might have been saved; and this frightful catastrophe conveys a most serious warning to all who have the management and superintendence of the erection of residences, not to incur the danger of neglecting so obvious a means of preserving health as that of duly providing for the removal of refuse animal matter by proper drainage.

The following instance of the contagion of scarlet-fever is interesting, as showing conclusively that contaminated air was clearly its sole and only source. I attended a young Irish lady, who was staying with her aunt in the neighbourhood of Norwich, for a mild attack of scarlet-fever caught at school. Every care was taken to prevent the spread of the disease; no one else in the house caught it, although neither the clergyman nor his wife, in whose house it occurred, had had scarlet-fever, as far as they knew; and the young lady shortly returned to her own home in Ireland quite well. After her departure, I advised her uncle and aunt to go away for some weeks, and have their house thoroughly cleansed, whitewashed, and purified. This was duly attended to, and, on their return a month or two afterwards, they found, as they thought, everything in perfect order. But unfortunately a drawer in one of the bedrooms had been left locked, and had not been opened during their absence; and, when the lady of the house examined it, she found in it a napkin or towel which had been used by the patient; a few days afterwards, I was requested to visit her, on account of an attack of scarlet-fever, evidently caused by the effluvia from this drawer, which was the only place in the house that had not been subjected to a thorough cleansing. Fortunately the case terminated favourably, and no more trouble ensued.

Whilst on the subject of the sudden invasion of serious and fatal disease, I may be allowed to refer briefly to the kind of medical supervision and action required to obviate and remove such baneful influences. The Local Government Board have, in various parts of the country, appointed officers of health, such officer being generally one of the district medical officers, and elected by the guardians of the Union. To my mind, this arrangement appears highly unsatisfactory; the medical officers of the different country districts, comprised in a union, are much on a par as regards qualifications and practical knowledge; and it appears invidious to appoint anyone of them to be supervisor over the others, and to give him power to interfere with his neighbours' districts. Their practices are so intertwined or interlaced with each other, that jealousy is sure to be engendered by such interference, and, where there is ill feeling of this kind, no cordial unity of action can be expected, and therefore the law would have but little chance of being satisfactorily worked and carried out.

Another mode of appointing medical officers of health that has been suggested, and in some places acted upon, is that of establishing large districts, a county, for instance, or part of a county, according to its size, and appointing a health-officer to supervise it who shall be known to possess special qualifications for the performance of the work, and who shall be remunerated by a sum sufficient to enable him to devote the whole of his time to the duties devolving upon him in his public capacity. This is, I think, an improvement upon the other, but might be objected to, on account of the expense it would unavoidably entail. Another mode, less expensive and less objectionable than the first mentioned, would be to appoint every district medical officer under the Poor-law the officer of health for his own district, and pay him extra for the duties and returns which such a position of responsibility would require of him. In the present improved state of medical education, I think there would be but few union medical officers who could not easily qualify themselves for these additional duties; and certainly, if qualified, no one could perform them with so little extra trouble and inconvenience; indeed, no one could so readily ascertain the existence of threatening signs of serious disease, or so easily make himself acquainted with the local causes which might be in operation to produce it. Under any arrangement, they must be the first to observe, and give notice of the existence of, such a state of things; and the stimulus of increased remuneration would keep them on the alert to watch the approach of the enemy. There is another plan, which I think worthy of the consideration of the authorities, and it is this: that every Board of Guardians and every district surgeon, on the invasion of any sudden disease, or for the prevention or removal of any nuisance likely to cause disease, be empowered to summon in consultation the supposed best authority on the subject in any large town near at hand, and pay him the usual consultation fee, according to distance and the time occupied in the investigation. I am inclined to think that such a plan as this would work well and be economical; and that the arrangement first alluded to is by far the least satisfactory of any of those I have mentioned. Surely it is one of the legitimate objects of this Society to sift such a subject as this to the very bottom; and, when thoroughly definite and satisfactory conclusions have been arrived at, to present its views forcibly to the Government, and throw its whole weight into the cause, to ensure, if possible, their being wisely and beneficially carried out. Those who do not care to bestir themselves about sanitary measures are sometimes apt to insinuate that medical men are not likely to occupy their time in attempting to prevent disease, for its presence is what enables them to earn their living. But to say that we are not always willing, nay anxious, to mitigate the sufferings of others by removing, as much as we can, all removable sources of disease, would be a most unfounded and unwarrantable libel on our profession.

When we consider what large numbers now belong to this Association, and the great amount of mind and talent embraced in it, it is difficult to say what are to be the limits of its usefulness and of its responsibility. It, no doubt, behoves us, individually and collectively, to turn over in our minds how we can best contribute to the accomplishment of the great results expected of us. Two things strike me as especially needful: first, that we should attempt the elucidation of many phenomena we meet with, by earnest physiological research; and, secondly, that we should endeavour, above all things, to add to the not too ample store of practical facts in the use of remedies for the cure of disease. These two departments of study cannot be fully undertaken by the same individuals.

Physiological research, to be worth what it ought to be, requires the close application of vigorous minds adapted to the science and embued with a love of it, but free also from all anxiety about the ways and means of providing for their daily wants and necessities. All so engaged ought to have, or be provided with, sufficient means to enable them to devote their whole time and attention to their work, without the cares and troubles of practice; whilst, on the other hand, those who are engaged in the great and paramount object of curing disease cannot possibly spare the necessary time for minute physiological investigations. Each, however, can materially assist the other; the practitioner can furnish facts and observations which may greatly assist the physiologist in his experiments, and the latter can enlighten the former by giving reasons for the facts presented to his notice. The majority of us must be practitioners, and earn our living by practice; but I should hope, in a Society like ours, means will ere long be found to supply the necessary funds to a certain number of young and healthy minds, congenial to the work, to enable them to devote their time and energies to physiology as a separate study. I was forcibly impressed with the necessity for this division of labour by the interesting address of Professor Burdon Sanderson at the last annual meeting. I have read that address since with much pleasure, and am induced on the present occasion to make a few remarks upon one of the subjects embraced in it. I allude to the theory of pyrexia. The cause of the increased heat of the body in fever has long been a vexed question, and, perhaps, has never yet received a satisfactory answer. Many different theories have been advanced to account for it. Virchow is of opinion, if I be not mistaken, that it is a nervous phenomenon depending probably on some morbid or unnatural condition of the cervical portion of the spinal marrow. Others have also more than hinted that lesion of the cervical spine, implicating the medulla spinalis in that region, has great influence in the production or annihilation of animal heat according to the particular portion injured. My own views of the matter, which are confessedly unsupported by any experiments, I feel scarcely justified in placing before you; only that any suggestion which results from deliberate consideration of a subject may possibly be of service, either in leading to further investigation in the same direction, or in removing some of the useless materials encumbering the ground. For these reasons, I will venture to occupy a few moments of your time by stating what I think may possibly be the *rationale* of what is termed a fever fit. First, we observe, after a preliminary period of *malaise* dependent upon the particular poisonous influence which induces the fit, a cold stage, a state of shivering, of coldness felt by the patient, of contraction of the superficial parts of the body, with seeming lessening of size, sharpness of features, and goose-skin, as it is commonly called. This cold stage is, after a shorter or longer time, followed by increased heat of the surface and tumefaction, terminating eventually in sweating; and thus the paroxysm ends. Cullen, one of the strictest observers of his day, attributed the cold fit to spasm of the extreme vessels, by which the blood was impeded in its course through the capillaries, and accumulated in the larger blood-vessels in the interior of the body; and I know of no better explanation of the phenomenon. Certain it is that, in the cold stage of fever, the surface is for a time cold, although we know that, even while the patient still feels cold, the temperature begins to rise. This fact was pointed out by Cullen, for he says, after describing the premonitory symptoms of fever and the onset of the cold stage, "at length the patient feels a sensation of cold, commonly first in his back, but from thence passing over the whole body; and now his skin feels warm to another person;" and in another place he notices "the feeling of cold while the body is truly warm". Now the suggestion I venture to offer, in explanation of a fever fit, is, that the poison which produces it does affect the small vessels, as Cullen describes, preventing the flow of blood freely through them, and that this obstruction produces an influence of resistance in the heart, urging it, as it were, to overcome the difficulty by an increased *vis a tergo*. Now the heart receives much of its power from the cardiac nerves derived from the cervical ganglia of the great sympathetic, and may not they, through reflex action, afford the heart the additional power required? If so, then would follow the increased heat engendered by increased muscular action imparted to the heart and whole arterial system, as well as more rapid oxidation and increased waste of tissues. No one can doubt that increased muscular exertion or action produces increased animal heat, as is daily proved by many familiar examples.

Well, the increased action of the heart and arteries overcomes at length the obstruction to the capillary circulation, and the muscular effort produces augmented heat of surface; and this, after a while, is relieved by perspiration. I attribute, as you will observe, this increased action in the blood-vessels to the influence, not of the cervical spinal nerves, but to the cervical ganglia of the sympathetic, which furnish the three principal cardiac nerves; and it may not be going very far into the clouds to imagine that, from the intimate connection of these ganglia with the pneumogastric nerves, they may indirectly influence them in producing anorexia, sickness, lassitude, and several of the other concomitant symptoms of the febrile state. A friend of mine, long since dead, but formerly a very active practitioner, gained considerable credit for his success in the treatment of fever, and the peculiarity of his practice was this: he bled his patients in the cold stage; acting on the principle that drawing blood from the veins would, in such a condition of things, relieve the pressure on the heart and large vessels, and enable the blood to circulate more easily through the capillaries and superficial vessels. He considered that by this means the reaction would be lessened and the hot stage moderated. His argument was the opposite to that of removing the obstruction by a *vis a tergo;* he aimed at relieving it by taking away some of the obstructing material.

I now come to remark upon the other department of professional study which, I think, ought to occupy a considerable portion of the time and attention of our members; I mean the study of the effects of medicine upon the human body, when employed for the cure of disease. Scarcely anything could be more useful to us than an accumulation of reliable facts in physic; and, if each one of us were to contribute what he knows, or may know, of a certainty in this respect, and such contributions were placed in the hands of a committee, who would collate them, and publish in our JOURNAL such of them as might, after strict and careful examination, be proved of good foundation, a great service would be done to practical medicine, and a vast boon conferred upon the public at large. We want something as definite in the practice of medicine as we have in the practice of surgery, where we know that a ligature will stop a bleeding artery, that a caustic will destroy unhealthy tissue, that pressure on an artery will cure an aneurism, and the removal of a sequestrum cause the healing of a necrosed limb. It cannot be denied that there are many facts in physic, but, at the same time, not a few that are supposed to be so will not bear the test of experience; and, strange to say, what may be supposed and believed to be facts by one practitioner are not always found to be so by another; a particular medicine answers in the hands of one person, whilst another fails to observe similar results from its employment in his own practice and under very much the same circumstances. Can it be that the strong will and wish to cure effects its object, as it were, by a kind of mesmeric charm upon the patient, irrespective of the particular medicine administered? Some of us may be possessed of a greater power than others to instil confidence into the minds of our patients, and this may contribute somewhat to their recovery; but beyond this I have no belief in mesmerism. Yet it is certainly remarkable that medicines strongly recommended by men of large experience as almost infallible in the cure of certain diseases, should by others be found valueless when employed for the same purpose. Surely much of this uncertainty and contrariety of opinion might be dissipated by a committee of this Association fully devoted to the task of elucidating this difficult subject, and who might, sooner or later, afford us, by their united efforts, a more definite knowledge of the action of medicines in the cure of disease. I am myself inclined to think a good deal of this discrepancy is due to the increasing disposition in the profession to shape their line of practice in accordance with novel theories, which are no sooner mooted and partly believed than they one after another disappear like the baseless fabric of a vision. A theory, however specious, can never avail us much unless founded upon experience; neither can any hypothesis safely guide us that is not supported by facts. It is much to be regretted that in our profession a vast amount of the experience of those who are most successful dies with the possessor; and the beginner, instead of having the accumulated experience of his predecessors to lead him, has himself to pass through the same difficult and mazy path, clearing away obstructions as best he can; and even then, in spite of earnest efforts and much wearisome work, finishing at last at about the same step of the ladder as those who have gone before him. Surely, here our great Association might render essential service to the practical working of our profession. If only each member of it would contribute even a little of what his experience proves to be true, the sum total of such individual knowledge would afford a mine of information, the value of which could scarcely be estimated or overrated.

A word more about the value of the combined efforts of our Association, and I will forbear to encroach further upon your time and patience. At the last Norwich meeting, held August, 1846, about two hundred gentlemen assembled in St. Andrew's Hall at the first *general* meeting. Mr. Crosse, in his address as President, remarked that—"As a science to be studied for the public good, legislation on medical matters is entitled to every consideration; until recently, it received less attention from the executive in this than in almost any other civilised country in the world, although the profession have been agitating the subject for nearly forty years, but most warmly in the last three or four; and, after all, what are the conclusions most generally arrived at and avowed by the greater part of the thinking and experienced men? A few general principles are what they agree upon; and foremost may be placed a general registration of all legally qualified practitioners, with annual publication of the registry. The next are, uniformity of education and community of privilege, in each grade, throughout the empire—principles which, he adds, will be more appreciated every year by the increasing intercourse which rapid and easy transit is sure to produce, rendering the present incongruities more and more apparent, until they will be deemed too absurd to be longer maintained, and we shall see the profession in England, Scotland, and Ireland united into one brotherhood." These prognostications of the revered President of that day have, as you all know, been realised; and the principles then advocated by the Association have since been fully carried out, though only after many years of earnest representation and pleading on the part of the great and influential body I am now addressing. So, gentlemen, I believe it will be in the future; only establish principles which are just and of undoubted benefit to the profession, and the powerful agency of this great Society, more and more powerful as years roll on, will most assuredly at last secure the favourable consideration of the Government, and force upon it the necessity of granting such reasonable demands as we may unitedly urge upon it. At any rate, I feel perfectly assured that no Act of the Legislature which we, as a body, consider to be detrimental to the profession or to the community, will have a chance of passing into a law in the face of such an influence as that now possessed by the British Medical Association.

One word more, gentlemen, and I have done. In our efforts to benefit mankind, let us not be unmindful of Him from whom the physician derives all honour, who has created medicines out of the earth, and who hath given men skill that He might be honoured in his marvellous works. "There is a time", it is written, "when in the physicians' hands there is good success. For they shall also pray unto the Lord that He would prosper that which they give for ease and remedy to prolong life."

CLINICAL MEMORANDA.

MAMMARY ABSCESS IN INFANTS.

DR. ROBERT BARNES writes: The cases reported by Dr. Stephen and Dr. Platt Wilks of mammary abscess in infants may probably be explained by observations which I made many years ago, when house-surgeon to a lying-in hospital. I then saw several cases of phlegmon and abscess of the breast in infants. I found that they were the consequence of manipulations practised by a nurse, who laboured under the delusion that the breasts of new-born babes wanted milking. This "vulgar error" is not, I believe, applied to female babes only. It is considered quite as necessary to milk the boys. This practice is done in secret. The doctor, of course, is prejudiced against it. But when inflammation or abscess arise, he may suspect the agency that has been at work. The mammary glands, which are nothing else but sebaceous glands in a peculiar state of development, may, in children as in men, yield, on squeezing, some sebaceous matter essentially resembling milk. And this is the basis of the vulgar error that the breasts in babes want milking.

DR. COTTEW (Holloway Road) is surprised to find that mammary abscess in the newly born infant is considered a thing of rare occurrence. He has seen a score of cases in which there has been great tumefaction; and in several instances suppuration has ensued. These cases are almost invariably occasioned by the rough treatment of the nurse; and he has often, like Dr. Bassett, been highly incensed with the nurse. He has happily not seen a case now for some years.

ADDRESS IN MEDICINE,

BY

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It is well that we should sometimes ask ourselves, with regard to the special sciences to which we devote our lives, the questions—Whence have we come? and whither are we going?—and this has been obviously felt by those who, in directing the affairs of the British Medical Association, ordained that there should be an annual "Address in Medicine".

We can appreciate the nature of our present position only by a regard to the past and an outlook towards the future. If we would know what the present condition of Medicine or Pathology really is, we must see whence it has come, and whither it is tending; inasmuch as a reference to the past is necessary for the comprehension of work that is in progress now; and a glance towards that which is to come, and which must be the outcome of our present work, is also essential, if we would test its truth or attempt to measure its value.

If Linnæus asked like questions about Man, with an outlook into regions which have not as yet been drawn within the limits of exact science, we, too, in our review of pathology, must sometimes pass beyond the lines within which that science has, perhaps too often, been confined, and by which it has been sometimes cramped. Medicine is no isolated science; we cannot draw a line around the group of facts which we so denote—nor, indeed, around any group of facts—in such fashion that we may truly say that, within its enclosure, the whole of any one science lies, and that outside such enclosure all facts must receive a different name. The whole of any one science is the whole of all; and pathology has its biological, chemical, physical, and mathematical elements, on the one hand, and its mental, moral, and social bearings on the other.

In the somewhat perilous task that I have set before myself, it is not my intention to attempt to furnish an account of the details of recent scientific work in medicine; but rather, by an examination of our past and present relations to four great propositions, or—if I may use the term—articles of creed, to show how they have affected our modes of investigation in the past, how they are governing or guiding our labours now, and what are the results which we see coming from the now existing and prevailing tendencies of thought.

The four articles of creed to which I refer as influencing, for good or for evil, the progress of scientific pathology, are a belief—1. In life; 2. In man; 3. In individuality; and 4. In the specificity of disease. The relation of the worker to the notions entertained by him with regard to the facts connoted by each of those four expressions, must determine the character and bearing of his work, and it is my object to try to bring before you the nature and effects of that relation.

1. Those who have gone before us in the study and treatment of disease have held, and that very strongly, to a belief, *first*, in Life, *i.e.*, in a power, force, or condition of matter which was *sui generis;* which could not be explained away; which could not be referred to any combination of physical powers; which had an origin, the nature of which was beyond the reach of our modes of investigation; the career of which was, although often "sorely let and hindered", outside of and above all temporary and material obstacles; and the end of which, as we see it here, was but the beginning of another development, for the features of which we must patiently wait until we ourselves had passed into another state of being.

It is obvious that this view of life often led investigators of disease away from objects which they should have examined; drove them into conditions of thought which were fatal to a correct appreciation of the truths they wished to know; cramped their notions of the possibility of preventing or curing sundry affections of both mind and body; and perverted the efforts which they did make for the alleviation of ills they could neither arrest nor remove.

Some of the names of familiar diseases point to the nature and keynote of the pathology of the times in which they were first applied, and illustrate the first point that I have mentioned. The terms "morbus sacer", "morbus comitialis", "morbus sancti Weitii", the "king's evil", "St. Anthony's fire", and the like, conveyed meanings that are now happily lost to science. The affections thus denoted were only a few of many which it was profane to attempt to account for by other than occult and mysterious influences upon the greater mystery of life. The investigator was driven back and away from thoughts or processes of examination which should intrude into these secret places of the unknown.

Again, the notion that life-processes were totally dissimilar from all physical and chemical changes, so that the life-force held all these changes under its own control, effecting, by its direct agency, movements both coarse and molecular, such as bore no relation whatever to the results of well known chemical and physical forces, led the minds of the most earnest thinkers away from the proper track of scientific and legitimate research, and placed them in a condition of hopelessness and confusion such as nothing but a strong and, perhaps, excessive revulsion could remove.

Diseases which were held to be the result of some direct interference with the higher processes of life, such as insanity of mind and many of the disturbances of motility and hallucinations of the senses, were maltreated or untended, except by incantations or the administration of some mineral, vegetable, or animal substances selected on no observation of their real therapeutic effects, but simply upon some mystic ground, some tradition, fable, or dream. And, again, the efforts that were made, within what was held to be the legitimate region of therapeutics, were misdirected and limited by the notions of volitional opposition to be overcome, not only in the patient, but in this organ and in that; and the processes directed to overcome this resistance were often absurd, and sometimes worse.

A change has passed over all this mode of thinking; processes and phenomena which were held to be among the sacred mysteries of life have been shown to be facts of chemistry and physics—facts which can be recorded by figures, words, and drawings. The chemistry of digestion, of assimilation, of secretion, and excretion, has been pursued, and unravelled with scrupulous care and marvellous exactness. We have learned something of the rate of movement of nerve-change; of the nature and mode of the operation of impressions on the organs of special sense; of the conditions of muscular contraction; of the relation between definite movements of the limbs and certain portions of the brain; and, indeed, of many curious links between some of the higher processes of thought and special portions of the nervous centres. Diseases have been produced by artificial means; one disease has been used to destroy another, and vaccination has done much to diminish, and may probably succeed in eradicating, small-pox; diseases have been removed by chemical processes, both directly and indirectly; the diabetic process has been controlled by a diet-rule; sarcinæ have been killed by sulphurous acid; and electrical appliances have restored wasted muscles and inactive nerves when these were apparently beyond all reach of hope. Modern pathology, by the aid of the microscope, the test-tube, and other means, has read many of the secrets of life, and the physician has been able so to wield the forces of life as to set right much that was wrong, and bring back the functions of organs which were virtually dead.

But, granting that we have removed much of the traditional mystery which obscured the facts of life, that we have resolved many so-called living actions into chemical and physical processes, and have described them in other than "vital" terms, it may still be questioned whether or no we have advanced many steps in the solution of the ultimate and real mystery of life. The tendency of the present day is to believe, and act upon the belief, that we have done so; and, as it seems to me, to push aside awkward facts as irrelevant or unreal, and to smother questionings by representing them as either solved, insoluble, or worthless. It seems to be almost believed by some that, if the chemical elements of which organised and living beings consist are brought together under favourable conditions, they arrange themselves into vital forms and execute vital functions; and just as certain bodies in solution may assume definite crystalline form, so other bodies may agglomerate into organic form and exhibit the properties of life. Again, the obvious "correlation" of the physical and vital forces has led some to believe not only in the correlation of forces and actions, physical and vital, but, further, in the identical nature of the two; and so that which constitutes the true differentia of life appears to me to have been lost sight of in the very brightness of the light which has been thrown upon the conditions of its action. It is well known that heat, electricity, light, air, food, and other external physical forces, impressions, and materials, are the agents by which the processes of life or vital actions may be educed, and without which they fail to show themselves; but, when the idea is entertained that life itself is nothing more than an aggregation of the resultant movements of these conditions, materials, and forces, it seems to me that we are wrong. Impressions from without may determine the occurrence of motion or sensation; but the secret of life is still hidden in the organism which transmutes the one into the other. Physical force may be correlated to vital acts, but life itself is the special property or condition of the special material which effects that peculiar relation, and it is as far from comprehension now as it was a thousand years ago. Heat applied to a fertilised and "living" egg may set in motion all those chemical and physical changes and movements which make up the living processes of a growing bird; but, if the egg be not living, to begin with, heat but hastens another series of chemical changes—those of disintegration, putrefaction, and decay. Life is still hidden in the wonderful cells from which all these changes of structure and function take their start. Again, if we apply electricity to a nerve-trunk, a cerebral convolution, or a more central structure of the brain, motions of definite character, association, and sequence may result; but the secret of life still lies hidden in the properties of those nervous elements which transmute such electrical impression into the facts of muscular contraction, and association of muscular contractions, in the movements of the limbs. To illustrate my meaning here, let me remind you that every so-called chemically "elementary body" is known as such only by the power which it possesses of so modifying materials and forces with which it is brought into contact, as to be distinct in its sum of properties from every other elementary body. We can describe it only by terms which involve some facts simpler than those of chemistry; but the idea is irresistible that, *e.g.*, gold, silver, and lead differ from one another in the fact that each of them has in itself a "something", we know not what, which determines the various bearings of each of those elementary bodies under the varying conditions to which they may be exposed—a something which makes them what they are, and to which we unconsciously refer in thought when we give them names and places in scientific categories. This individuality, or "tendency to individuation", as it has been called, is what constitutes that which has been termed their "life". The same mode of thought is true with regard to the living organic body—no matter how simple or how complex;—that which makes it living, which alone justifies the attribution to it of the properties of life, is the possession of an individual power of behaving in such a way under given circumstances, and amidst the brunt of conflicting forces, and surrounded by varying materials, that it evolves the phenomena we designate as vital.

I do not mean to say that anyone distinctly says to others, or even to himself, "I can make living beings by putting together the elementary bodies of which they are composed under favourable conditions"; nor do I think that there are many who would say: "Life differs in no respect, in all its details, all its relations to personal consciousness, to moral sense, to intellectual product, and to social history, from the physical forces of which we know so accurately their modes of action as to be able to foretell the result of experiments we may make, or of processes which we see advancing;" but I do think this, that many are disposed to think that, if we could make our experiments only a little more clever, that if we could carry our machinery of experimentation but a little further—and there is no doubt that we shall do so very shortly—we shall get rid of the term and the idea of life itself, and so make a great advance in science. It may be that this will be done; but, for one, I believe that it will not be done; but that there will ever remain the same kind of mystery with regard to life itself—however keenly and satisfactorily many of its processes may be referred to simpler agencies—that still shrouds the nature of those simpler forces, such, for instance, as gravitation or heat, with regard to the nature of which we have ceased to question. We have admitted that their "essence" is beyond our ken, and that we can but study their phenomena; we have not tried, or have failed if we have tried, to reduce them to a common denominator; but, with regard to life, we have drifted into a sort of belief that it is to be decomposed, explained away, or got rid of; and that our true line of action is to be found and followed by such a belief in the future results, rather than in the present or the past facts, of science.

The mode in which this state of mind affects us, as physicians and surgeons, is, I think, injurious. Among other evils which come from it, I will mention two. The first is, the growing disregard of what may be termed "subjective symptoms" of disease, and the second is the effect which such frame of thought exerts upon therapeutics.

With regard to the former—"subjective symptoms"—is it not coming to this, that but little attention is often paid to the accounts which patients give us of themselves, their ideas, emotions, feelings, and physical sensations? These are things which we cannot weigh in our most guarded balances; measure by our finest scales; split up in our crucibles; or describe in any terms save those which are peculiar to themselves, and which we cannot decompose. These symptoms are often disregarded and set aside; and the patient, whose story of disease is made up of them, is thought fanciful, hypochondriacal, hysterical, nervous, or unreal; because, forsooth, we have physically examined thorax, abdomen, limbs, and excretions, and have found in them nothing wrong; because we have looked at the retinæ, examined the limbs electrically, traced on paper the beatings of the pulse, weighed the patient, and have not found him wanting. Still he is miserable, in spite of placebo and assurance that there is "nothing organically wrong". There may be in him the consciousness of a deep unrest; or of a failing power, which he feels, but which we cannot see; or of a something worse than pain, a sense of "impending evil", that he is conscious of, in brain or heart; a want of the feeling of intellectual grasp, which he may call "failure of memory", but which memory, when we test it, seems free from fault; a want of the sense of "capacity for physical exertion", which seems, when we see him walk or run, to be a mere delusive notion, for he can do either well and easily to our eyes and those of others; and so he is called "nervous", and is told to do this or that, and disregard these warnings, that come to him from the very centre of his life. And let me ask whether or no it has not again and again happened, in the course of such a history as that which I have only faintly sketched, that some terrible catastrophe has occurred? Do we not see minds gradually breaking down, while we say there is no evidence of organic change in the brain; hearts suddenly ceasing to do their work, when, after careful auscultation, we have said there was nought to fear? Suicide or sudden death sometimes disturbs the calm surface of our scientific prognosis of no evil; we may be startled, and may then see all that we ought to have seen before. But, when the ripples that such unforeseen events have occasioned on that smooth surface have subsided, we go on as we have already done, and still pay but little attention to what the patient feels, and delight ourselves in the precision of our knowledge with regard to physical conditions of which he may know nothing and may care still less. No one can appreciate more highly than I do the value of precise observation; but I do not believe that minute, delicate, and precise observation is limited to a class of facts which can be counted, measured, or weighed. No one can see more distinctly than I do the wrong conclusions at which a physician may arrive by accepting as true the interpretations which fanciful patients may offer of their symptoms; but I am sure that, if we pay no heed to these mistaken notions of a suffering man, we lose our clue to the comprehension of the real nature of his malady. Morbid sensations and wrong notions are integral parts of the disease we have to study as a whole, and we are bound to interpret their value for ourselves; but we can ill afford to set them aside, when we are as yet but in the dawn of scientific pathology, and are endeavouring to clear away the obstacles that hide the truths we hope hereafter to see more clearly about the mystery of disordered life. The value of such symptoms may be slight in some kinds of disease, when compared with that of those phenomena which may be directly observed; but we are bound to remember that there are many affections of which they furnish the earliest indication, and there are not a few of which they are throughout the only signs.

Again: the view that is taken of the correlation of vital and physical forces, when it assumes the form that I have mentioned, and which amounts to a practical ignoring of the fact of life, is, I think, mischievous in therapeutics. That which is the differentia of life is, as it seems to me, lying in the organism, and is that which makes it capable of transforming physical forces into vital acts. But what we are often attempting to do in our treatment of disease is to elicit vital action, rather than to conserve vital force. We see that, by giving such and such drugs, we change—and, as it seems, for the better—the mere processes of life; we may limit or increase muscular movements; we may augment the quantity of secretion here, or of excretion there. But, let me ask, do we not often see that, when we have effected these changes, when we have given diuretics, purgatives, diaphoretics, and the like, and have witnessed their appropriate physical results, the disease is no better than before, and the patient is worse? We have brought vital processes into play, but have used up the vital force in doing so. On the other hand, we try to check what appear to be excessive and exhausting discharges, or tiring and distressing acts; we try and often succeed in diminishing the frequency, force, or extent of certain vital functions that appear to be, and indeed are, beyond the normal range. But, again, let me ask, do we not often see, when we have succeeded in lulling a cough and diminishing the amount of expectoration, that other and far graver troubles supervene; that, when a diarrhœa or diuresis has been cured, the patient is worse than before; that, when a skin-eruption has been removed, some nervous trouble takes its place? Again: by the administration of alcohol or of other stimulant or tonic, we may often help a man to get through some work for which, without such aid, he was totally or partially incompetent; we have evoked an amount of vital action that would otherwise have been impossible. But do we not often see that we have really done more harm than good; that the weakness has increased, and that the necessity for stimulation has become aggravated, and that what was really needed was food and rest, which should have nourished the organism, built up the tissues, and replaced what was wanted in living force? We have helped our patient to do things he could not otherwise have done, but we have used up his life in doing so.

Once more: in the present day, electricity, in its many forms, has come again into fashion, and constant and faradic currents, chain-batteries, and magnetic belts are topics of common conversation and articles of dress, in boudoirs and clubs, as well as in the consulting room of the physician. The mischief that is being done by such abuses of a very valuable therapeutic agent is grave and manifold; but is the profession altogether blameless in this matter? There are some conditions in which electricity is very useful, and useful by calling into play the function of nerve and muscle; but it has again and again been used when it could by no possibility have been productive of the slightest advantage, and when the production of such enforced action of muscle and nerve has but diminished the strength and exhausted both the energies and the endurance of those who had not one grain of either of those qualities to spare. Muscles and nerves have been driven into action when they needed rest; but that which has guided the practitioner into such mistaken practice has been the notion that to evolve function was the great end of treatment, whereas what was really needed was a conservation of the central nutrition, and a consequent addition to the stock of vital force. Rest, food, cod-liver oil, and soothing drugs, were needed; and not faradisation, alcohol, or strychnia.

These points are enough to show the class of evil which may arise from what I hold to be a wrong way of putting the notion of the relation between physical and vital force, between life and vital function; and I cannot but think that, by a review of our ideas of life, and by a regard to the objects, direction, and limits of our therapeutic agents, we may hereafter find it less frequently recorded in the domestic annals of our patients, that he or she had "suffered many things of many physicians, and was no better, but rather the worse".

As ancillary to the line of argument which I have followed, there is much to be gathered from a regard to the recognised causation or etiology of disease. The conditions which derange or disturb health may be grouped in the following manner. 1. Those which change the due income to the body of ponderable, measurable, intelligible, and appropriate material, such as food in all its forms, solid, liquid, and gaseous. These may be deficient, excessive, or unwholesome; and we know fairly well the results of bad eating and drinking, of bad water and bad air. 2. Those which interfere with the due elimination from the body of its waste products—faulty secretion and hindered excretion. 3. Those which diminish, derange, or exaggerate the amount or influence of certain imponderable agencies—light, heat, electricity, and the like; and here, too, I would place physical injuries. 4. Those which in any way disturb the due exercise of the body in such way as to distort the balance between income and expenditure of these imponderables—for example, overwork, underwork, deficient motion, deficient rest, care, anxiety, and toil.

I do not know what recognisable and ascertained cause of disease might not be included within one or the other of these four categories; and by their aid we may explain a vast number of the morbid conditions which we have to study and to treat. But let me ask if, after the most careful scrutiny, we are not again and again compelled to say we can find no cause for the particular malady presented to us in this person and in that. We fall back upon constitution, predisposition, hereditary taint, and other easily employed but most inadequately examined and utterly uncomprehended words, to account for what we do not know and can by no means explain; and by the use of such phrases we only shunt the etiology into a siding, or throw back for one or two generations that which is inexplicable in the present.

We know much of the conditions determining the occurrence and favouring the development of the "acute specific diseases". We know much of the results of accidental exposures, of overwork, of faulty education, and of miserably defective hygiene. We know something of the conditions which may aid the growth of the group of "constitutional diseases", and which may antedate the processes of natural decay. We know much that may be useful in its application to masses of people; and to this I shall refer hereafter. But what, let me ask, do we know, and know definitely, of the starting-point of disease, of so-called "constitutional" sort, in a large proportion of the cases that come under our care? It is worse than idle to assume that we know as yet the true etiology of cancer, of Bright's disease, of tubercle, of Addison's disease, or, again, of that which determines the difference between the many maladies of the nervous centres which crop out in writers' cramp, torticollis, chronic chorea, locomotor ataxy, epilepsy, diffused sclerosis, or general paralysis. We often lightly refer any one of them to conditions common to the causation or supposed etiology of all, and then fall back upon peculiar predisposition. Again, do we not often find that, upon the most careful scrutiny of all antecedents, we are unable to explain why this man has Addison's disease, and that suffers from ataxy, why one suffers from cancer, and another from writers' cramp? There is much that is as yet withheld from our most earnest gaze—much that, as it seems to me, we must as yet refer to a change, the nature of which we do not know, in the very innermost recesses of what we call "life". There is something radically and essentially wrong in that upon which all these so-called "causes of disease" are brought to bear; and I think we are driven by the facts of daily experience to believe that the organism—the living material which, by virtue of its own endowments, determines, in obedience to external impressions, all vital acts—is in itself at fault; and that its departures from the normal condition vary, and are different the one from the other, in such way as to produce those various modifications of structure and function which we term "constitutional diseases". As physicians and surgeons, it is our part to conserve life by preventing, when we can, the inroad of disturbing agencies; to preserve life in its integrity of useful work and fit association with all that makes life happy; to help it in its weakness, heal its suffering, lessen its sorrows, and soothe its closing hours; but I think we shall accomplish these purposes successfully only by admitting its existence, its separateness from all other forces, acknowledging its mystery, bowing ourselves down before the enigma of its origin, and reverently humbling ourselves in face of its unsearchable but wonder-teeming end.

II. In continuing our review of the past and observation of the present, let me next remind you that the fathers and forefathers of pathology held a firm belief in the essential peculiarity of Man. They believed that man was a creature, in many respects, allied to and resembling other members of the animal kingdom, which was, or had been, brought into more or less complete subjection to itself, but presenting points of difference from all the so-called lower forms of life far greater in their intrinsic value, although, perhaps, far less in their numerical representation, than the points of agreement or resemblance. Thus, and for this reason, the maladies of man had an appearance and received a consideration which could be understood and justified only upon regard to a belief in the entire separateness of man's life and history—in its origin, its purpose, and its end—from that of the most elevated and most familiar members of the animal kingdom.

The effect of such teaching was to set a limit to the acquirement of certain classes of knowledge which might be highly useful to man in regard of many of his bodily ailments; and not only so; it led to an entire misapprehension of many facts that were of constant occurrence in the healthy and unhealthy lives of men. Actions which are common to man and the animal races, actions of simply reflex character, of sensori-motor, or of emotional origin, in addition to all those which were regarded as intelligential, were separated by a broad line of distinction from all similar actions occurring in the most gifted animals. This being so, the attempts which were made to explain such phenomena in man had their starting-point not in physiological method, but in metaphysical speculation. Animal life, in its various outgoings, was abased that man might be exalted; the term "instinct" was rarely applied to the latter; the possession of reason was denied the former. And, in the present day, we constantly hear, on the one hand, of the remarkable "instinct" of the dog, for example, as an explanation of some distinctly intelligential process; and, on the other hand, we hear many facts and functions of human life described in terms of intelligence, while they are in reality examples of but instinctive impulse, sensori-motion, or reflex action. It would seem, from what we often hear, as if the idea prevailed that instinct grew up into wider and more complex function from the lower forms of life until it had reached its maximum in the highest and most gifted animals, and that from this point man started on an entirely new basis, and that all the actions performed by him, from the cradle that rocks his first infancy to the coffin which at last cradles his second childhood, were the outcome of another and separate power. Herein we see the existence of a twofold error: for, firstly, the purely instinctive acts of animals are witnessed in their highest perfection, and in their most remarkable mechanical results, in such lower forms of life as seem to be altogether deprived of intelligence; whereas the introduction of intelligence in the higher animals stunts and overrides their purely instinctive acts. The bee builds its cell and the spider spins its web with an accuracy which the skilled hands of man might envy; but the dog, the cultured friend of man, learns to forsake the instinctive habits of his race, and to do things which no instinct could ever enable him to do, and to take joy in acts of obedience and affection which might furnish, and have furnished, useful examples to ourselves. Man, secondly, on the other hand, from earliest infancy to oldest age, exhibits much that is purely instinctive, and which deserves no higher or no other name. And this is seen not only in the baby feeling for, and kneading with its tiny fists, the breast that feeds it, nor in the second childhood that puts out its lips and grasps the hand that brings its food, but in all the "seven stages" of life that our great poet has described. In the schoolboy, the lover, the warrior, the justice, and the decaying senior, we see the several time-ordered instincts cropping out; and determining now, as they have done in the ages that are gone, that, about and around which poetry may wrap its finest tracery of verse, upon which philosophy may build its brightest hopes, and from which, in another mood, it may shrink abashed and humbled, and by which religion is sometimes lifted into its highest phase and sometimes driven backwards almost to despair. Each period or stage of man's life has its special instinctive characters, and few of my audience will think that, in saying so much, I have overstated the quantitative value which is at this time given to the merely physical powers and determining forces of the complex life of man. The tendency, as I read it, at the present day is to pass to the opposite extreme, and to see nothing distinctive in human life; nothing which cannot be explained, in physical function, by reference to the lower forms of animal existence; and nothing in the mental and moral history of ourselves which cannot be referred to analogous processes of material change.

For myself, I must protest against this view, and I venture to do so, not as a philosopher or moralist, but simply as a physician in daily contact with those who are suffering from mental and bodily disease.

I see in the latter—the bodily ailments of men and women—as the most frequent cause of their occurrence, and as the most potent elements in their etiology, disturbances in the working of those social, moral, and intellectual processes, which are unlike and apart from anything which can be even tortured into resemblance to the causes of disease in animals. The cares of professional life, the worry of the Stock Exchange, the heated excitement of the betting-room, the luxurious idleness of the club, the intellectually guided epicureanism of sensual excess, the feeling of the urgent pressure of family and social needs, as well as the fierce conflict between moral sense and religious training on the one hand, and doubtful practices and honest and dishonest scepticism upon the other, are the most fruitful sources of loss of rest, recourse to stimulants and narcotic drugs, failure of appetite, disturbed digestion, mal-assimilation, "nervous break-down", and all the thousand ills that flesh is heir to. I say, designedly, that flesh is heir to, because I am now speaking of bodily ailment only, and affirm that this kind of causation of malady is peculiar to man, and that we lose sight of much which it behoves us to consider if we fail to see the broad line of distinction which, in this particular, separates him from the animal kingdom, to which he is allied.

Again, the inferences that have been drawn, from observations on animals, with regard to the phenomena of diseases apparently common to those animals and to man, have, I think, been pushed too far, and have led to much unintelligible controversy. The differences between the human and the animal organisation have been sometimes lost sight of, although many of them are obvious enough. Variola and vaccinia afford a striking illustration of my meaning, when we remember their different relations to infection and inoculation, and the curious effects which are produced by the passage of either of these poisons through the human body, or through that of the cow. This is but one of many examples that might be given of the necessity for the inoculation of poison from the animal world, if we would infect the human being with its virus; and there are others which show that the ordinary mode of transmission from animal to animal is restricted to special groups of animals, and does not apply to man. Still further, the very interesting observations that have been made with regard to the inoculation of tubercle exhibit another striking difference between man and those rodentia upon which the experiments have been made in the greatest number; I allude to the freedom of the brain-membranes from the effects of the general infection. We may speculate upon the causes of such a difference; and it matters little for my purpose whether or no the greater development and activity of the human brain should determine its proclivity to suffer from tuberculisation of its meninges; that such difference does exist is a well known fact, and points to a still greater and wider difference which we should not ignore. Again, the action of many familiar drugs upon the most familiar animals is so different from that which we know to occur in man, that therapeutic experiments upon the former should be received with much more than "one grain of salt" when they are put forward as our guides in the treatment of human malady. If mercury fail to increase the biliary secretion of dogs, and if opium cause diarrhœa in those our delightful companions, we are not justified in the inference that blue pill is useless in some forms of so-called "bilious headache", and that opium is valueless in some forms of diarrhœa.

To pass, however, from these physical ailments, to those which show themselves in disturbance of the higher faculties of man, let me remind you of our great distinction from the members of the animal kingdom in exhibiting a form of malady, or rather many forms of malady, from which they are happily exempt. Something very like epilepsy occurs in dogs, in horses, and in domesticated birds, and it may be artificially produced in the rodentia. Something very like the stupidity and waywardness of man may be seen in our domesticated friends; they exhibit sometimes, as it has been said, "a disobedience almost human"; but the curious and complicated phenomena of insanity have never, so far as I know, been observed in the lower animals. We may see in them the delirium of fever, the hallucinations of commencing rabies, the irritability of advancing years, or of premature decay, the outcome of forced luxuriousness, that antedates the fretfulness of age; we may find them stupid and long-lived, or precocious, clever, affectionate, impulsive, and so possessed of faculties that would make us apply to them, and in an enlarged sense, the old adage, that "those whom the gods (and not only the gods, but men) love die young"; we see them weakened in body and in mind, but we do not see in them "insanity"; *i.e*, in any of the more striking forms in which it presents itself to the physician, whose business it is to deal with human beings.

This distinction, which adds to the many other helps that we may derive from the animal kingdom, seems to me to be of great value when we are attempting to show the difference between man and those creatures, to which we may bear the closest physical and intellectual relationship. It is so, not only in regard to the lower corporal distinctions that may be traced, but in respect of that which affects man in his highest relations, his mental and moral capacities for exertion, and also, unhappily, for his disease.

We cannot pay too high a regard to all the conditions which conduce to physical health; but I am sure that we shall lose much, of quite inestimable value, if we regard these only; and look to an infant, a growing child, a youth, or an adult, as a mere animal to be trained, for this work or for that, just as we might train, or "break in", a dog or horse, and neglect those other elements in his higher training or education, which have no direct relation to those lower phases of life, but which are an integral part of his development, and essential to his fitness for the position for which, by the nature of his constitution, as man, he is created.

All that I have already said upon the value of "subjective symptoms" of disease might be recapitulated here, and urged with augmented force; but if I were to do so, it would be a waste of your time, for I feel sure that there is no need for me to insist again upon the line of thought that I have ventured to suggest.

I cannot but believe that, if we would understand the ills and sufferings of man, and endeavour to assuage them, we must deliver ourselves from notions, however plausible, and from theories, no matter how clever, which reduce man to the level of "the beasts that perish." While we refuse to be led astray by old-fashioned dogmata, that would ignore his relation to the animal world, and his possession of qualities which in no sense differ from those which we see in the donkey, dog, or horse, we should not fail to recognise in him faculties which they do not possess, and which may be the fruitful source of disease; powers in him to which they show only the faintest resemblance, but which, in him, may constitute, by their derangement, the misery of life; and modes of treatment which can only be successful by the fact of their basis being the belief in the fact of manhood.

At every period of life, of human life, we may often see much that is purely instinctive relegated to a higher sphere of motion, and may, in cynical mood, sometimes say about the youth:

> "'Twas strange that one so young should thus concern
> His brain about the action of the sky:
> If *you* think 'twas philosophy that this did,
> *I* can't help thinking puberty assisted."

But I am sure that we shall do our work the better, if we come out of and above this lower ground, and recognise in the suffering man the fact of qualities which transcend all that we know of the mere animal life; see in him a sense of duty and of self-sacrifice, an outlook to the future and to the unseen, a weariness of the merely temporal, and a belief in the eternal, that shall lift him into the region of our personal sympathies, and out of those simply physical ranges of action which we recognise in cats and dogs. There may be much to disturb his appreciation of the two worlds to which he feels himself to belong, much to make him sometimes cling tenaciously and blindly to the "seen," or much to urge him onwards in an equally blind pressing towards, or absorption in, the "unseen," or much that makes him incapable of appreciating the reality of either; but still, as we look at man, in his misery, shadowed over with doubts, and hindered by fears, quailing before imaginary ills, or exulting in factitious joys, we can pity him, feel for him, try to help him, wonder at him, fail to understand him, but we cannot despise him, we cannot thrust him down to the level of the brute, but rather ask ourselves, in deep sorrow, or in deeper joy—

> "Tho' world on world in myriad myriads roll
> Round us, each with different powers
> And other forms of life than ours,
> What know we greater than the soul?"

III. The next point to which I wish to direct attention is the belief in "Individuality"; the influence which this belief has exerted in the past, and still exerts in the present, history of pathology; and also the effect which a disbelief in the individuality of each human being seems likely to effect on the future of our science and art.

Our forefathers, and indeed many of our collateral relations in the brotherhood of our profession, did, and do still, cling to the persuasion that, although there may be much similarity between all the members of what we call the "human family," or "human race," there is to be found between each member of that race, and every other, a difference, which, not only for the sake of the individual, but for the purpose of complete scientific investigation, overrides the generic resemblance, so that every man, woman, and child presents for investigation and treatment a personal and a family history which we should be unwise to ignore. To have known the individual from his birth, or to have "brought him into the world," as the somewhat arrogant but time-honoured phraseology runs; to have known his parents and his family, and to have watched his childhood, youth, and manhood, were conditions which were held, and are still held, to be important elements in the probability of correctness in a physician's diagnosis, prognosis, and treatment of the case that comes before him. And surely there is something to be said upon the value of such knowledge. But I think that it has been heretofore often overrated, and that now it is in danger of being underrated. So long as, and wherever, such knowledge was the excuse for ignorance of general pathological laws, or the cover for carelessness in the examination of the patient, it was evidently wrong, and abundantly productive of false notions and mischievous treatment. It was an injustice to the individual, and an injury to the practitioner. But let us ask if we are wise in ignoring all information of this sort? Whether we may not learn much from the family history and the idiosyncracies of many, which would be utterly passed by except for such accidents of professional information? Whether or no we would not sometimes trust ourselves, in our own sufferings, to some one who knew us well, and had known us long; who knew our parents and our belongings, and who, with no special skill in the use of many implements, whose names may end with "scope," hit out some common-sense line of treatment, the result of much experience and far-seeing, rather than commit ourselves to the care of the most highly trained graduate in medicine, who could see our retinæ, trace our pulse, qualitatively and quantitatively examine our excreta, record our temperature, and bring to bear upon our case the last generalisation of the latest writer on our peculiar malady? I think that we should; or at all events that we should like to combine, if we could, the guidance from both sources; we should be glad to know all that our younger acquaintance could teach us, but we should also like to fall back upon the wisdom of our older friend.

That which has conduced the most powerfully to a disregard of personality and idiosyncracy in the study of disease, is the prevalent adoption of the statistical or numerical method in the processes of pathological investigation. No one can appreciate more highly than I do the value of that method, but I think we have often missed the point of its teaching, and misapplied the real aids to be derived from it in the treatment of disease. Statistics are eminently useful for the destruction of hasty and erroneous generalisations; by their aid, and often by such aid alone, we can prove that certain currently received dogmata are wrong. But it often happens that "one fact, well observed, is worth (not only) a cart-load of opinions," but is equal to many folios of statistical inferences, calculated to any number of decimal points.

The value of statistics in pathology is in proportion, first, to the approximative identity of the several cases with which the inquirer has to deal; and then, secondly, to the number of the cases exhibiting such nearness of resemblance. When the former element, the resemblance of cases, is disregarded, no matter how wide the area from which the results have been derived, we have learned some curiosities of arithmetic, but nothing of real scientific value in pathology. When the latter element, the extent of the area of observation, is forgotten, we may have acquired some amusing learned lumber; but we obtain little that can be of real service in our attempt to grapple with the multitudinous variations of disease in so complex a being as man.

At the best, our knowledge is but a fraction of the truth we want to know, and statistics do but tell us what that fraction is. But where, as it seems to me, our frequent mistake lies, is in the fact that we regard this definite and positive fraction wrongly in giving to it a substantive value, whereas we should look to the other side, the often much larger fraction, that represents the unknown, unexplained, and unreduced facts of medicine, and apply all our energies to their solution. An illustration may make my meaning clearer. In the statistical examination of the etiology of a particular disease—it matters not what—we say, *e.g.*, that in 25 per cent. there was an hereditary taint, and we fall back upon the idea that the chances are as 1 to 3 that the disease was, in this particular instance, inherited, and so we sometimes content ourselves with such assumption, and seek for no further causation. Indeed, it may be within our personal knowledge that the patient's father suffered from a like affection, and so no other explanation seems necessary, and we do not seek for it. But let me ask whether, if in 75 per cent. of all cases of a particular malady, no hereditary taint could be discovered, we are right in putting the chances of heredity at so high a point as 1 to 3 in any particular instance? If in 75 per cent. the disease had originated spontaneously, or apart from hereditary taint, it might do so, and probably has done so, in some of those 25 in whom hereditary taint has been shown to be possible. On purely arithmetical grounds, we ought to say that in only one-third of the twenty-five could there be an antecedent probability of family transmission of the disease. This would reduce the etiologic value of our statistical knowledge of heredity in this disease to less than eight per cent. Then, let me ask, whether or no our duty is not to examine more carefully the other cases, those 75, or more properly 92 per cent., in whom we have no reason to believe in this mode of causation? and still further, whether or no we have not quietly put aside any investigation of such sort, when the bare fact of the existence of a like disease has presented itself in a near relation of the patient's, who is confided to our care? The probabilities are as 92 to 8 against an hereditary origin, but we give our patient anything but the "benefit of the doubt," and frame our etiology, diagnosis, prognosis, and treatment upon an hypothesis which presents 92 to 8 chances against its being correct.

I have selected this example of hereditary taint, and have reduced its value to a minimum, because it rather militates against the view that I wish to enforce, of the importance of a knowledge of family history, and still more of individual character; but a similar line of argument might be employed to show the exceeding vagueness of our knowledge, derived from statistics, with regard to the other etiological conditions of a very large number of diseases, and the urgent necessity that exists for careful examination of each individual case, as to the origin of the malady which may bring it before our notice, and of the extreme danger which attends the propensity to fall back upon numerical statements.

Our daily and hourly work is with individuals, and I cannot but think that, so far as regards the comprehension of their diseases and their needs, statistical pathology has afforded us no other aid than the elimination of much currently received opinion. This has a real and obvious value; and it is in this destruction of error, and not in the construction of the science of medicine, that the numerical method finds its *rôle*.

Again, it is curious and interesting to know—as we do pretty accurately—how many people in 1875 will be killed by railway accidents; how many will break their legs in Hansom cabs; how many will drink sulphuric acid; how many will be burned to death; how many will die of phthisis and carcinoma; and how many octogenarians will marry young girls under twenty years of age; but when we have obtained this knowledge, so curious, and yet so precise, let me ask, of what value is this to you or me, or any of our patients, who may be starting on a railway journey, "hailing a Hansom," using sulphuric acid, shutting off our gas at night, exposing ourselves to cold or worry, or advancing in years to the fourscore, which, on high authority, is said to be but "labour and sorrow"? So far as I can see, the value is inappreciable, for life is too complex in each individual for the application of many general laws; and, least of all, for the deductive use of those which are derived from a mere regard to numbers.

By statistical formulæ we may "insure" lives, so as to benefit the survivors, and protect shareholders; but we can use them only in their application to the many; they are of no pathological significance to the individual. That one man is accepted at ordinary rates, and that another has to pay an addition of twenty per cent. to his premium, may be an useful arrangement for the office, which deals with masses; but it affords no guarantee that the former may not die of fever within a month, or that the latter may not outlive all those who had no drawbacks to their claims. And here, let me say, that a practice somewhat common in insurance offices may, I think, lead to some serious discomfiture hereafter: I mean one which seems very natural, viz., that of making an addition to the premium for insurance of a faulty life, to be removed, if, after five, seven, or ten years, on re-examination, the proponent is in good health. This is done with a kindly feeling of regard to the individual, but not on an established basis of statistical knowledge; and the two elements, of judgment of the probable future of the individual, on the one hand, and the requirements of the office on the other, are somewhat jumbled together; and so we, as physicians and advisers, are stepping out of the known lines of average probability for the many, into the vague territory of knowledge of the individual, with regard to whose personal and peculiar chances of viability we know little, or next to nothing.

Perhaps there is nothing which marks more distinctly the individual peculiarities of people than the relations which they bear to external agencies—material and immaterial; such as light, heat, electricity, food, and drugs. We call these peculiarities, idiosyncracies; we meet with some of them two or three or more times in twenty years, but others are so rare that a long life of varied and wide experience may have witnessed but one example. Some people are most delicate electrometers and magnetometers; and I know one such who became blind in a thunderstorm eight years ago, and whose physical frame before and since that time is always contorted by electrical and magnetic disturbances long before the former are recognised by ordinary people, and when the latter have only been displayed by perturbations of the machinery for electric telegraphy. We may all possess properties which are influenced by such conditions; but they are affected to only such a slight degree that the existence of such sensitiveness as that which I have mentioned must be regarded as individual. Again, peculiarities with regard to food furnish another example of the same distinction. One person cannot take egg, in any shape or form; to another tea and coffee are poisons; some cannot eat flat fish; others are put into cutaneous tortures by strawberries. And so with drugs. Ipecacuanha will make some sneeze; a grain of iodide of potassium will iodise one person, a grain of grey powder will salivate another, opium will produce colic in a third, and so on. In the face of facts such as these, it behoves us to regard each individual member of the human family as at present, and at all events for pathological and therapeutical purposes, unexplained and often untouched by those general statements, or so-called statistical laws, which we have been able to frame with regard to the behaviour of the race.

We speak of dentition troubles, of all the morbid tendencies which accompany the several epochs of life, of the surgical operations that may be undergone, of the diseases that are prevalent at this age and at that; and, indeed, sometimes of the end of it all in death, in such way that one is reminded of the comfort taken to him or herself by that very clever person who moralised upon the *post mortem*, or perhaps not always *post mortem*, treatment of the eel! "Custom hath made it in him a property of easiness" may sometimes be said of the physician or the surgeon, as well as of the grave-digger who sang over his ghastly toil; and also of the astute fish-fag, who failed to recognise the individuality of the eel, upon whom was being performed the last tender office of removing its cutaneous envelope.

Daily experience teaches us that each case, or rather that each man and woman, must be examined for himself and herself; and that nothing short of a knowledge of the individual will be of real service to us, if we would understand and treat disease. We are all of us alike, yet we are all dissimilar. Each of us has, for himself, to go through but once the stages of development that are common to us all. Each individual life is continuous, and passes, onwards and alone, through growth to maturity and decay. No one can keep with us; no one can enter into all the mysterious windings of our intellectual and moral being; no one can do more than share our troubles and our joys; no one can take them from us; the sympathy and the love that help us to bear them, and which we so fondly cherish, do not render us less alone; and as we reach this epoch, or that period of our existence, and find ourselves floating, drifting, or manfully pushing onwards upon the rivers, and over the depths and shoals of time, and which we know that our fathers have passed through before, we cannot help, each in our individual consciousness—in spite of statistical law, of bold generalisation, and *reductio ad absurdum* of all preconceived opinion—we cannot, any one of us, help feeling, as we come to one or many of them, as if

> We were the first that ever burst
> Into that silent sea.

IV. And now I come to the last point that I wish to bring before you—viz., the Individuality or Speciality of Disease. These words do not fully convey my meaning; and yet I know not any others which would serve my purpose better. By illustration, however, I trust that what I mean may be made apparent. The chronic wasting diseases with which we are all painfully familiar—such as tubercle, cancer, rickets, Bright's disease, Addison's disease, gout, and the like—present many points of resemblance *inter se;* they have symptoms in common; many of their accompaniments or intercurrent phenomena are identical; there is much that is common to their modes of termination, and much that is alike in their anatomical appearances. We know, with some approximation to precision, the commoner sequence of events in each of them; can sometimes explain something of their causation; and can predict, in general terms, their future. An enlarged view of the living bodily functions, and a more careful and extended examination of the organs and tissues after death, has shown a far wider range of physical alteration than that which was believed to exist in many of the diseases to which definite names were given in days gone by. Microscopic analysis, becoming finer and more exact, has revealed such a notable resemblance or identity in the ultimate facts of structure-change in many diseases, that the accomplished pathologist may fail to describe, or even see their difference, while their rougher features have enabled even the tyro to put them at once into this category or into that.

And so there has grown up a tendency to sweep away distinctions and names which were the delight of our forefathers; to disbelieve in the existence of so-called "constitutional" disease; and to refer all the changes of tissue to the accidental operation of local interferences with nutrition. There is much to be said in favour of a reconsideration of all old distinctions, and of the names by which they may have become familiar. It is by no means necessary, for example, that the kidney should be always involved in those degenerative processes that may fairly be called "Bright's disease". It is not essential that the supra-renal capsule should be affected in a cachexia that well deserves the name of "morbus Addisonii". It is not constantly found that the ligamentous and cartilaginous tissues of a joint are affected by a special inflammation in one whose antecedents and symptoms warrant the application of the term "gout" to the malady from which he suffers. But I think we should be going far wrong, if, in regarding either the variety, the resemblance, or the wide extent of symptoms, we lost sight of the individuality of that which underlies those symptoms; *i. e.*, of some central fact, property, force, element, or tendency, which finds expression in the special grouping of phenomena or symptoms. There is something that is wrong in the organism of A, and which is radically and essentially different from another "something" that is wrong in the organism of B, when the one presents tubercular disease, and the other cancer. We do not know what that something is, nor does it seem to me that we do more than approximate a knowledge of the direction in which we should look and work in order to find it out. We know very much of the general order of events, of the relative frequency with which this organ and that is found involved in tubercular, cancerous, or other cachexiæ; but as to the determining causes of these differences of proclivity in the affection of particular organs, we know next to nothing. They are at present ultimate facts of science; and they are like to those which pertain with regard to the "acute specific diseases". With respect to them, we know that scarlet fever affects the throat, the skin, and the kidneys in a particular manner; that the poison of measles, of typhoid, and of other exanthemata, exhibits another form and order of infection; but as to the reason for these facts in their history we know nothing. We fall back, in regarding the latter—the acute specific diseases—upon the individuality of the poison that is brought into the body from outside; with regard to the former—the chronic and constitutional maladies—we must, I think, adopt a similar process of thought, and recognise a speciality or individuality in that which determines the starting-point and subsequent career of morbid change. It seems to me that the further we carry our knowledge of the intimate detail of structural alteration, the further do we carry ourselves away from the discovery of the "missing link". Diagnosis may often be as easy as it is possible to conceive up to the point of recognising some diseases, to which we may give a name that is useful for the purposes of recognition; but we are only on the threshold of inquiry as to the whole pathology and etiology of these affections, or, in other words, their complete diagnosis.

With regard to many diseases, we are in a position that might be described as somewhat like that of the physiologist and the schoolboy in combination, when they have found two birds'-nests. The one—the histologist—shall examine the contents of one of the eggs of each nest, and apply all his microscopical powers upon the cells that he shall find; he may call the chemist to his aid, and yet fail to give, after the most searching gaze and chemical analysis, even a guess as to the nature of the bird that would be developed by the simple application of warmth to another egg which he has not broken: the other—the schoolboy—looks at the shell, and decides in a moment that this will become a blackbird, and that the other will produce a lark. What the relation may be between the colour and the marking of the shells and the wonderful constitution of their contents that shall determine the development of this bird or of that, we do not know; what is the difference between those contents we do not know, but let us remember that a quite specific and wide difference does exist between them, although it is far too fine for any of our processes of investigation to demonstrate its nature; and yet that a diagnosis may be made by observation of the character of certain superficial phenomena which we can in no way connect with the essence of the difference. If we apply this illustration to the diagnosis of disease, we see that the pathologist sometimes ignores the existence of difference which he cannot apprehend; misses his true line of work, which lies often in another, and as yet unconsidered, direction; while the practical man solves the question at a glance. The difference really exists, but it is by its outcome, in the modification of life-functions, that we really make our diagnoses of disease; and by regard to these, I think we are driven to a belief in the individuality of special ailments.

While we are perhaps losing way rather than making advance in our knowledge of some classes of disease, by the endeavour to get rid of their individuality, there is, at the same time, a tendency to over-refinement of specialisation and nomenclature in regard of other classes. Such terms as "locomotor ataxy", "Cruveilhier's atrophy", and the like, may be very useful if they but direct attention to the lines along which degenerative changes in the nervous centres are apt to run; but if there is attached to them the kind of importance which we sometimes find they have received, we wander, I think, from the true path of scientific investigation; and are led to separate from one another maladies which are much more closely allied in their real nature than the difference of their names would warrant us in supposing. There is an individuality in these, but let it not be over-estimated; there must be something which determines why this tract of fibres or that in the spinal marrow shall be the starting-point of morbid process or decay; but the conditions which lead to these differences have not yet been made out, and there are many so-called causes of disease which are common to them all. What I think, then, that we should do is, bearing in mind the individuality of disease, search into all its phenomena, not rest satisfied with those which seem the most relevant and the most consistent with the present modes of physiological thought, and the ascertained facts of pathological research; but pass beyond them into the outlying regions of vital phenomena, and perhaps discover in them (*i. e.*, in some apparently irrelevant facts) the clue to a solution of their mystery.

In recapitulation, let me remind you—1. That, by losing sight of, or underrating, the primary fact of life, we deprive ourselves (*a*) of the information to be gained from a study of subjective symptoms; (*b*) we often misdirect our therapeutic efforts, by eliciting vital action, rather than conserving vital force; and (*c*) lose sight of many of the most important causes of disease: 2. That, by failing to see the speciality of the nature of man, we underrate or ignore (*a*) much of the etiology of human suffering; (*b*) are often misled by the results of observations upon animals; and (*c*) are in danger of misinterpreting the facts of the most serious maladies that may afflict our fellow-creatures: 3. That, by disregarding the individuality of man, we are in danger (*a*) of again and in another way losing a due appreciation of the causation of disease; and (*b*) of overrating the value of statistics, and of being led astray by their apparent precision, which exists only with regard to masses: And 4. That, by an unsound application of the idea of the specificity of disease, we may, on the one hand (*a*) sweep away distinctions which are facts of pathology, and, on the other (*b*), raise up or lay down lines of demarcation which are unreal.

From what I have said, it is, I think, obvious that the science of medicine is in a state of "change" as well as of "progress". It has not yet arrived at the degree of exactness which may be found in the simpler sciences; but those who are devoting themselves to its pursuit are pressing towards that end; and each is endeavouring so to throw his mite into the treasury of knowledge, that a scientific ordination of the facts of pathology may hereafter be a possibility. But the facts are so diverse in kind, so varied in appearance, and so bewildering in their complexity of form, that we must wait, and perhaps wait long, for their due arrangement. Thousands of observed facts lie as yet hidden in the valuable but unrecorded experience of those who are daily adding to the unwritten lore of medicine. We gather scraps of them in conversation and in consultation; we may often see something of their influence upon the habit of thought and of practice of those whose large stores of information have not as yet been exposed to view, and which have not as yet been sorted for personal use. But a true science of pathology cannot be until the knowledge of all individual workers is the common property of all. In the meantime, we must "learn to labour and to wait"; and we must least of all commit ourselves to any one particular school or line of thought, but rather cultivate that habit of mind which has "a look southwards, and is open to the whole noon of Nature".

Those who are the workers in this wide field are not all in one "stage", as it has been termed, of scientific inquiry. We are not all of us in either the "theological", "metaphysical", or "positive" stage of thinking with regard to our relationship to the facts and forces around us. Very few individuals who have seen much, thought much, and felt much, are so limited with regard to the sum total of their experiences as to assert even for themselves a position—an exactly limited position—on either one of these three platforms. But each one has his bias or tendency of thought; and the work that each does, and the results to which such work tends, are greatly influenced by such underlying and directing force. I have endeavoured to show the effect which, as it seems to me, may be produced by an over-attachment to one line of investigation, and by a neglect of another, the results of the pursuit of which the student of man can ill afford to lose.

In our recognition of the *Speciality of Disease*, we have carefully to examine the nature, and the sources whence they come, of all the contaminations by which the stream of life may be damaged or defiled. They may be puzzling, hard to separate, and still harder to trace to their source. They may be complicated in their effects, and so mixed together, that again and again we may be baffled in our attempts at their analysis. But what we want is work, not on any preconceived theory, but work that shall faithfully follow onwards and trace backwards the line of sequence of events, and eventually yield, as it has done before, a real knowledge of the facts we wish to know.

Again, with regard to the *Individuality of Man*, we must strive to show whence each life has come; the nature of its source; the conditions of its youth; the struggles of its onward progress; the valleys through which it has passed, and the rocks it has had "to overleap or rend". We may often be perplexed in our attempt to solve the problem it presents, but we must accept the facts of their existence, and of their variety. We see a quiet onward flow in the course of one, and a stormy, labouring, toilsome course in another. One seems like a river wandering through valleys in which children play, and upon whose banks age reposes; untroubled by the oar, unhindered by the wheel; and sometimes, in deep places, seeming to be at rest, but still passing, although gently, onwards, without sound or ripple, to the far off sea. Another life-stream comes from its rocky home, dashes hither and thither, in what seems its wayward youth; but gathers strength as it flows on, and does mighty work, setting in motion a thousand busy looms; bearing on its broad breast the light craft of idlers, and also the dark, heavy burthen of outlying toil; working and carrying still onwards the labours of a thousand lives, through quiet valley or through noisy town, until it, too, finds its home. We must know all that makes up individual life, if we would understand its ills. We must go back to its source, and look around at all through which it has had but to pass, or to work its way, if we would know how to understand or avert the troubles it may meet.

And again, with regard to *Man*, it is not until we recognise in him his true relation to the world that lies around him,—which in many of its forms of life comes so near, but which is yet so far removed from him in his higher phases,—that we shall duly understand his sorrows or whence they come, in such way as to prevent them or relieve them when they are thickly hedging him about.

And lastly, we must duly appreciate the great fact of *Life*—the mystery of mysteries—that underlies all our knowing; and over-arches us with, sometimes an abyss of light, sometimes with impenetrable gloom. When we try to realise it, we seem to be, for we ourselves are a part thereof, on the surface of a boundless ocean; above us the sky, now dark with cloud or rent by storm; now lit with sunbeams, or trembling with the pale light of stars; beneath us a mighty deep, with its unknown treasures, mysterious currents, and "sense of unfathomable danger". Sometimes we "see the light and whence it flows", we "see it in our joy". Sometimes we see the land, and press towards it; but, again, the night comes down, the horizon line is lost, we are poised between two worlds, and, although we may strain our eyes to see and our ears to hear, we may find no token to tell us of the points in which they meet, no glimmer of the unseen things that sever them.

But let us thank God that we are not left alone, and that in such darkness there often arises light. For, often when most sorely troubled with the surrounding mystery—the abiding mystery—that shrouds the details of our knowledge of both Man and Life, we find, in our own consciousness, our thoughts, and feelings, that which may enable us to help our fellow in his sorrows, relieve him in his sufferings and fears, and banish from his mind and heart the clouds that may sometimes have gathered, so darkly, around our own. And, having this sympathy, and holding in our recollection and present thought, those phases of our own and of other lives—which we know full well, but which we cannot reduce to words—we shall be the better fitted to explore and unravel the whole series of phenomena which present themselves in the lower ranges of pathological investigation. The method of such physical research, as well as its results, will check us when we may be disposed to drift away into the mist, or to soar into the clouds, will help us to cultivate exactness in all directions of inquiry; and so contribute to the science and art of Medicine; which, in spite of all its failures, misdirections, and missing links, is yet one of the greatest boons that man has been the means of conferring upon man; and which, we believe, will in the future far transcend, in its benefits to mankind, all that we have known of its doings in the past.

ADDRESS IN SURGERY,

BY

WILLIAM CADGE, F.R.C.S.,

Surgeon to the Norfolk and Norwich Hospital.

Mr. President and Gentlemen,—When, by the favour and at the suggestion of my local friends, and with the approval of the Council of this Association, I was chosen to address you to-day, I accepted the honourable responsibility, and, in doing do, took counsel rather of my vanity than of my discretion. To some, whose mental activity is great, and whose pen moves glibly, the opportunity would be esteemed, as indeed it is, a golden one. To me, with unready thoughts and with unpractised pen, who delight rather in reflection and contemplation than in speech or written words, the honour was—I may as well confess it—more oppressive than pleasing.

Having, however, accepted the duty, I shall perhaps best explain, I may almost say apologise for, the scope and object of my address, if I recount the thoughts which passed through my mind while in quest of a subject.

A retrospect of Surgery compassing the time during which I have been in active work came first to mind; but this has been so often, so ably, and so recently done, that the intention was dismissed almost as soon as it presented itself. I turned next to the records of my own experience, feeling sure that these must contain materials enough, if properly set forth, to furnish an hour of interesting commentary; but, though, on looking through my notes, I found instructive illustrations of disease and curious and important cases in abundance, they seemed to display no special features, either of pathology or of treatment, worthy to occupy such an audience.

The novelties of surgical practice introduced during the last year or two are scarcely sufficient or scarcely important enough to constitute a theme. They are chiefly comprised in Esmarch's bloodless system of operating and Dittel's elastic ligature; concerning which I will only say that the first is not a novelty, having been practised by one of our members many years ago, and that the second is, in my opinion, more curious than useful, and not worthy of a place either in the records or in the practice of surgery.

One great subject there is, which, if not exactly a novelty, is of recent time, and is still waiting for a solution, both as to its facts and as to the theories held to account for its facts; I mean the germ-theory of putrefaction and antiseptic surgery. This subject, for I associate them, I deem to be of surpassing importance and interest. Underlying, if not undermining, much of the existing fabric of surgical pathology and practice, it cannot be too often brought to the bar of professional criticism; for on its right solution, whether it be true or not, depend a multitude of points in daily practice, and even probably the lives of many of our fellow-creatures. This subject would certainly have been my choice but for two considerations. More than one influential member of the medical press proposed, at the commencement of the year, to make and carry out a full investigation of the entire question—a proposal which, however, still remains for fulfilment; and I felt moreover that, in our sectional meetings, papers by most competent men would probably be forthcoming, and would lead to searching discussion.

Turning, then, from these topics, my thoughts reverted towards home, and fixed themselves on that subject which for every Norfolk surgeon possesses an undying interest, and which for all practitioners, from some point of view, may be presumed to have considerable attraction. The city in which we are now gathered is the centre of a district in which cases of renal and vesical calculus are supposed to be, and probably are, more frequent than in any other part of the world. The explanation of this frequency is so often demanded of one, both in professional and in non-professional society, and is so difficult to give, that I propose to discuss the subject from this point of view, and this alone, not touching, except incidentally, on the question of treatment, about which over much has already been written. I propose further to narrow the question by limiting it to one form of stone; viz., that composed of lithic acid and its salts, which I need not say constitutes at least five-sixths, or more probably, so far as this district is concerned, nearly nine-tenths of all primary formations. While, however, I thus limit the inquiry to this one species, it will be understood to include not merely the accidental occurrence of vesical stone, but the diathesis out of which stone arises; indeed, I have now only to do with calculus in the bladder, in that it expresses, roughly and approximately, the relative frequency or rarity of the lithic diathesis, just as the mortality in any place or district may be taken to represent, roughly and approximately, the amount of sickness in that place or district. For one case of stone in the bladder which presents itself, there are ten at least met with in which the lithic diathesis, or as it may for convenience be termed "lithuria", is fully marked in the form of lithic deposit, sand or gravel. Let us, then, inquire—1. Is lithuria, as represented by cases of stone in the bladder, more common in this district than in any other part of the United Kingdom? and 2. If it be, what explanation can be given to account for the excess?

The subject has on more than one occasion undergone investigation. Just a hundred years ago (*vide A Medical Commentary on Fixed Air*, by Matthew Dobson, F.R.S., 1785), Dr. Dobson of Bath, in an inquiry on the disposition to stone in the cider counties compared with some other parts of England, demonstrated that stone abounded most in the eastern or Norfolk district; that the north-eastern, including Newcastle, York, Leeds, and Manchester, stood next in frequency; that the north-western, including Liverpool, Chester, Shrewsbury, and North Wales, had the fewest cases; and that the cider counties of Devon, Gloucester, Worcester, and Hereford had nearly the same as the north-eastern. About fifty years ago, Mr. Smith of Bristol went over the same ground, but more fully than Dobson; and speaking generally, it may be said, he met with similar results—that stone abounded, above all other places, in Norfolk; that a larger proportion was found in the eastern than in the western district, and that Ireland and Scotland were comparatively free from the disease (*vide Medico-Chirurgical Transactions*, vol. xi).

Dr. Yelloly, in 1830, still further elucidated the subject, and found that, in Ireland, calculus was very rare, especially in its country population; that in many counties no operation for stone had been practised in any of its hospitals, and in some districts the disease was almost unknown. In Scotland, he found as much variation in frequency in different parts as in England; in the very northern counties it was very rare; in Aberdeenshire the proportion was more considerable; in the southern and south-western districts it was exceedingly rare; while both he and Mr. Copland Hutchinson (*vide Medico-Chirurgical Transactions*, vol. xvi, p. 94) showed that, taking the whole country generally, stone was as frequent in Scotland as in England; and that in both it was much more frequent in town than in country populations (*vide Philosophical Transactions*, 1829 and 1830).

In my own investigation, (1) I have consulted the Registrar-General's reports for the last five years for the United Kingdom; (2) I have applied to one of the surgeons—generally to the senior surgeon—of nearly all county hospitals, and of all others having a considerable number of beds, or of those likely to admit and treat stone-cases; and I desire now publicly to express my deep obligation and warmest thanks to those gentlemen—and they include nearly all to whom I applied—who have so promptly, so courteously, and so fully answered my inquiries. The information obtained will appear in a table comprising all the cases received into the various hospitals during the last five years; the number of children under 10; the average age; the number of beds and the proportion of stone-cases to the whole number of in-patients, with incidental remarks by my various correspondents. I am aware that both these sources of information are open to criticism and objection, on the score of inaccuracy. The Registrar-General's reports, especially those from Ireland, are admitted to be faulty; the causes of death are often vaguely and carelessly stated; frequently no certificates are given, and the true causes of death are overlooked; but, where the numbers are large, and the statistical system on which the various data are constructed is the same from year to year, it is probable that a near approach to truth and comparative accuracy is really obtained. So far as hospital records are concerned, they are, doubtless, more nearly accurate in themselves; but the inferences to be drawn may be vitiated by various causes; thus, eminent and successful operators may attract cases from great distances, so as to make it appear that a larger proportion of stone exists in some particular districts than is actually the case, and, therefore, a less proportion in others. This disturbing cause, perhaps, is chiefly found in the metropolis and in some of the large cities; but, so far as London is concerned, I have ascertained the locality from which each case was derived, so as to allocate each to its proper county, while out of London this vitiating cause does not probably materially affect the result; the result being that, in almost all cases, the returns from the various hospitals fairly represent the amount of stone, and therefore of lithuria, existing amongst the poorer classes of the population surrounding those hospitals. Another source of inaccuracy arises from the increase in number of hospitals, of cottage hospitals, and of dispensaries which contain a few beds, in all of which operations are occasionally performed. Further, there are many surgeons unconnected with hospitals who deal, and deal generally very successfully, with the cases occurring in their own immediate neighbourhood; but these, though they are many in the country at large, are but few in each county, and do not greatly disturb the hospital averages. In Norfolk for instance, where stone-cases are quickly detected and keenly watched, and where certainly there are plenty of capable and enterprising surgeons, I do not believe that more than six or eight cases are annually operated on in the county, while the various hospitals continue to maintain their full average numbers.

Taking, then, the mortality from stone, the Registrar-General tells us that, in England, there are more than twice as many deaths from stone as in Ireland in proportion to population.

Yearly average of Deaths from Stone for Five Years ending 1871, *in proportion to Population and to whole number of Deaths.*

	Deaths from Stone.	Of Population.	Of all Deaths.
England and Wales.........	200	1 in 100,331	1 in 2,467
Scotland	59	,, 51,903	,, 1,200
Ireland	27	,, 214,740	,, 3,354

In Scotland, there are twice as many deaths in proportion to population as in England, and four times as many, therefore, as in Ireland. Further, it appears that, in the northern counties of Scotland, there are nearly four times as many deaths from stone as in the southern counties, the population being nearly equal. Similarly, in Ireland, the mortality is three times as great in the northern counties as in the southern. In England, the mortality from stone has increased during the last five years. For several quinquennial periods, there was a steady decrease, which led to the belief that stone was really a diminishing disease; but this inference, I fear, was erroneous; all the evidence I have been able to collect tends to show that it is just as frequent as ever, and that the apparent diminution was due rather to better treatment, more willingness to submit to operation since the introduction of anæsthetics, and especially to greater nicety and accuracy in discriminating the causes of death. For instance, in 1840 there were 303 deaths from stone and 132 from cystitis; while in 1870 there were 195 deaths from stone and 415 from cystitis. This remarkable discrepancy is due, not to any real difference in the relative proportion of the two diseases, but in the more exact appreciation of the real causes of death. As in Ireland and Scotland, so in England, the mortality varies greatly in the different registration districts. The northern and north-western counties show the smallest mortality and the eastern counties the greatest, being in the proportion of nearly one to four; next in amount of mortality to the eastern are the south-eastern and south midland counties. Yorkshire, Wales, and London show a medium mortality, and the west midland and south-western counties have almost as small a mortality as the north and north-western. These facts appear in a table showing the number of deaths in five years, and the proportion to population, and the whole number of deaths in each district.

Mortality from Stone in England and Wales in five successive Quinquennial Periods.

1847 to 1851,	the average of deaths was	...	... ...	232
1852 to 1856,	,,	,,	... ...	216
1857 to 1861,	,,	,,	... ...	184
1862 to 1866,	,,	,,	... ...	168
1867 to 1871,	,,	,,	... ...	200

Yearly average Mortality from Stone for Five Years in each Registration District in proportion to Population, and total number of Deaths.

District.	Yearly Deaths.	Of Population.	Of total Deaths
1. London	40	1 to 70,099	1 to 1,904
2. South-Eastern	22	1 to 83,978	1 to 1,829
3. South Midland	15	1 to 86,367	1 to 1,882
4. Eastern	18	1 to 63,475	1 to 1,319
5. South-Western	9	1 to 203,985	1 to 4,098
6. West Midland	19	1 to 128,216	1 to 3,028
7. North Midland	15	1 to 85,959	1 to 1,928
8. North-Western	14	1 to 209,681	1 to 6,187
9. Yorkshire	26	1 to 77,520	1 to 2,132
10. Northern	6	1 to 191,895	1 to 5,459
11. Monmouthshire and Wales...	17	1 to 77,202	1 to 1,721

Proceeding to further detail, I have ascertained the mortality in each county of England and in London and Wales for five years, in proportion to population. This calculation, although accurate in the main, is open to this objection—that the number of deaths even in five years is too small in many of the counties to be above the reach of accidental fluctuation. Moreover, the deaths in London do not quite accurately represent the mortality for London proper, because the hospital population of the metropolis is drawn from various distances, and especially from the home counties, thus, at the same time, diminishing the mortality in those counties. Making, then, some small allowance for these slight sources of error, it appears that the greatest mortality obtained in these six counties, in the order named—viz., Norfolk, Huntingdonshire (a small population), Kent, Sussex, West Riding of Yorkshire, and Leicestershire; that the smallest mortality obtained in these six counties, in the order named; viz., Cheshire, Cornwall, Cumberland, Hampshire, Durham, and Devonshire; while the other counties hold a varying position between these extremes; the extremes being, that in Norfolk there is one death from stone yearly in 42,000 and odd, in Cheshire there is one in 425,000 and odd.

Mortality from Stone in Five Years, ending 1871, *in the several Counties, and the Annual Death-rate in proportion to Population.*

	Deaths in Five Years.	Population.
Norfolk	50	1 in 42,744
Huntingdonshire	5	,, 59,137
Kent	45	,, 60,585
Sussex	30	,, 61,139
Buckinghamshire	12	,, 61,335
Yorkshire (West Riding)	94	,, 61,405
Leicestershire	19	,, 64,115
Monmouthshire and Wales ...	74	,, 78,140
Warwickshire	48	,, 65,670
Shropshire	20	,, 66,750
Suffolk	25	,, 67,081
Hertfordshire	13	,, 68,250
London	201	,, 69,500
Cambridgeshire	13	,, 69,845
Yorkshire (North and East Ridings)	34	,, 71,475
Worcestershire	23	,, 73,100
Staffordshire...	57	,, 76,965
Northamptonshire	14	,, 82,525
Berkshire	11	,, 93,470
Westmorland	3	,, 101,575
Middlesex	9	,, 104,065
Lancashire	61	,, 108,145
Derbyshire	12	,, 122,485
Nottinghamshire	13	,, 124,530
Gloucestershire	18	,, 135,765
Bedfordshire...	5	,, 140,479
Oxfordshire	6	,, 142,690
Northumberland	12	,, 142,925
Wiltshire	8	,, 145,610
Essex	13	,, 146,040
Herefordshire	4	,, 150,900
Dorsetshire	6	,, 151,825
Surrey	13	,, 183,150
Somersetshire	12	,, 193,070
Devonshire	15	,, 196,426
Hampshire	11	,, 207,570
Durham	11	,, 246,420
Cumberland...	3	,, 342,125
Cornwall	5	,, 364,846
Cheshire	8	,, 425,520

Turning now to the hospital records, it appears that they agree fairly with the Registrar-General's returns, with one exception, to be presently mentioned. Application was made to between eighty and ninety hospitals in England, Scotland, Wales, and Ireland, and reports have been received from between seventy and eighty; and these reports, besides containing the number of cases admitted during the last five years and the respective ages of the patients, contain also, in very many instances, results of treatment and practical remarks of great interest and value, which, however, I shall for the most part reserve for future use, merely quoting those which bear upon the present inquiry.

It would be impossible to read in detail the following abstract, but I will cull from it the most salient points, merely premising that the column expressing the proportion of stone cases to the whole number of in-patients has been constructed on the principle that the admissions of 1872 were assumed to be the average of the five years. It must also be borne in mind that all hospitals do not admit patients on the same grounds; a small hospital, having but few beds and narrow income, would admit all the stone-cases belonging to its area, but would necessarily restrict the admission of general cases to the more urgent ones; hence the proportion of stone-cases would appear greater in small than in large hospitals, and especially so in stone-districts. For instance, we have in this city a Children's Hospital containing twenty beds, in which the proportion of stone to other patients is one to thirty, and similarly, in the small hospitals of Yarmouth, Lowestoft, and Peterborough, there appears an undue proportion; but, taking the general run of county hospitals and hospitals in large towns, they are probably guided by the same method in their admission of cases and the relative number of stone to general cases, does in them give a fair picture of the amount of lithuria in each district.

Beginning, then, in this county, where undoubtedly there is the greatest amount of stone, permit me to say a few words specially of the Norfolk and Norwich Hospital, which has long held a position of authority in all matters in which this disease or diathesis is concerned. The hospital, which is now a trifle over one hundred years old, presents, in the accuracy with which its books have been kept, a model for all hospitals. From its opening to the present time, I have without difficulty ascertained the name, age, and residence of every stone-case, and where any doubt existed, the doubt was in the mind of the surgeon; there is no ambiguity in the records. Every stone which has been removed, either during life or after death, became the property of the hospital, and, to the number of about 1050, may be seen forming a noble contribution to the annual museum of this Association now on view in the adjacent room.

Including renal and urethral calculi, there have been admitted about 1270 males and 56 females. From this record, it would, I think, be easy to show that, so far from stone being a diminishing malady, it is rather an increasing one, even beyond that which the increase of population would account for. In 1773, there were nine cases admitted; in 1873, there were twenty-five. In the earlier year there were barely half the present number of beds, it is true; on the other hand, Suffolk had no hospital then, and the patients were drawn from a vastly greater area than now. This record also goes far to show that the sanguine and somewhat romantic view, that stone would come to be "stamped out", expressed by a distinguished friend of mine, has but little chance of fulfilment. During the last five years, the period chosen for comparison, there were 90 cases of stone admitted into the Norfolk and Norwich Hospital, or one to 55 of all in-patients. In the Lynn Hospital, there were 20, or one to 124 in-patients. In the Yarmouth Hospital, 21, or one to 32 in-patients. Now let us compare this with one of the hospitals in the south-western district—the Devon and Exeter Hospital, in which were admitted six cases, or one to 1300 in-patients; or with the Taunton and Somerset Hospital, in which, with ninety-two beds, no stone case has been received in five years, and, my informant adds, only two in forty years. This, however, is an extreme instance; in very many hospitals fit for comparison with our own, the proportion of stone to general cases varies from one to 200, or one to 400; but there is a Midland district, having for its chief towns Birmingham and Wolverhampton, in which not only do stone-cases prevail largely, but prevail especially in children. In the Wolverhampton Hospital, 50 cases have occurred in five years, or one to 101 admissions; of these 50 cases, 37 were in children under 10 years. In the Birmingham hospitals, the General, Queen's, and Children's Hospitals, 127 cases were received, of which 69 were under 10, and the same fact will appear in the report from other and smaller hospitals in the same district. Compare this with the Norwich cases; out of the 90, only 18 were under 10; but the contrast is greatest if we compare it with the Aberdeen Infirmary, which admitted 47 cases in the five years, of which only 3 were under 10. Some explanation of this singular contrast I will presently give.

The metropolitan hospitals will speak for themselves, so far, that is, as my information goes; but they scarcely come into comparison with ordinary provincial infirmaries. The hospital reports from Ireland, so far as they go, bear out the Registrar-General's reports as to the very small amount of lithuria in that happy land. Even in Dublin, a stone-operation, my informant says, is an "event".

In Scotland, hospital experience does not seem to be in accord with the death-rate. The admissions to hospitals would lead me to think that stone is less common there than in England; but the mortality would seem to be nearly double. This discrepancy is not easily to be accounted for, and I cannot help thinking either that imperfect discrimination of the causes of death has been made, or that, in the snatches of leisure during which I have compiled the table, some error on my part has crept in. I can conceive that, in the vast areas where population is small and surgeons are few and distant, many patients, who in England would be cured in a hospital, may in Scotland be allowed to languish and die of stone; but it is going too far to suppose that these considerations fully explain away the difficulty. Another mode of viewing the matter exhibits the discrepancy still further. Thus, in Scottish hospitals containing altogether 2151 beds, there were admitted, in five years, 171 stone-cases. In English provincial hospitals, taken promiscuously (and not including Norwich), containing 2183 beds, there were admitted, in five years, 354 stone cases, or more than twice as many as in Scotland; while, in seven London hospitals containing 1958 beds, there were admitted 229 stone cases: in other words, one stone-case to about thirty beds in English provincial hospitals; one to forty in London, and one to sixty in Scottish hospitals. This matter, therefore, I leave for further and more careful investigation.

Table showing Number of Stone Cases admitted into various Hospitals during Five Years, ending in 1873, with the average Age, Number of Cases under Ten Years, and the Proportion Yearly to whole Number of In-patients.

Hospital or Infirmary.	No of cases in Five Years.	No. below Ten Years of Age.	Average Age.	No. of Beds.	Proportion of Stone Cases to whole number of In-patients.	Remarks.
Yarmouth Hospital	21	15	15	28	1 to 32	
Peterboro' Infirmary	10	3	36	42	– 53	
West Norfolk and Lynn	20	10	24	48	– 124	Drinking waters hard.
Children's Hos., Norwich	9	0	0	20	– 30	
Norfolk & Norwich Hos.	90	18	48	140	– 55	
Lowestoft Infirmary	10	5	29	30	– 77	
Wolverhampton Hospital	50	37	11	200	– 101	A group of hospitals, in which a large proportion of cases are in young children; drinking water very hard.
Birmingham "General"	61	18	32	256	– 229	
,, "Queen's"	30	15	23	198	– 286	
,, "Children's"	36	All	0	58	– 116	
Coventry and Warwickshire	10	7	12	62	– 110	
Dudley– Guest's Hospital	4	3	9	60	0	
Dudley Dispensary	13	10	6	0	0	
Leicester	44	17	32	210	– 236	
Stafford	7	3	10	120	– 518	Water very hard.
Shrewsbury	19	10	19	140	– 262	Cases frequent on coal-formation; water hard.
Derby	8	0	27	175	– 691	Water hard in places whence stone-cases come
Nottingham	25	7	33	142	– 263	Water variable; generally hard.
Lincoln	11	4	32	100	– 339	Water generally hard.
Stamford	3	2	24	40	– 425	Water decidedly hard.
Northampton	19	8	27	138	– 402	Many waters of considerable hardness.
Huntingdon	10	3	36	42	– 118	Drinking waters unmistakably hard.
Cambridge	33	14	30	120	– 122	Waters hard, containing a good deal of lime.
Colchester	4	1	38	94	0	Town waters hard; in villages rather soft.
Hertford	3	2	19	35	– 250	Only 5 cases in 20 years.
Ipswich, Suffolk	15	0	0	90	– 176	Water very hard.
Bury St. Edmunds, Suffolk	9	3	38	84	– 223	
York	8	3	31	90	– 442	Cases rare; water soft.
Hull	28	12	30	150	– 230	Chalk soil; water hard.
Leeds	75	23	33	310	– 202	Waters variable.
Halifax	12	3	39	50	– 177	Wat. soft; some cases imported from other places.
Bradford	29	8	18	140	– 141	Water not very hard.
Sheffield	17	7	23	160	– 369	Not much stone; wat. soft
Sunderland	11	2	20	110	– 246	Water of moderate hardness.
Manchester	51	12	26	296	– 302	Wat. of Manchester soft.
Liverpool Royal Infirmary.	31	8	26	270	– 564	Water from various sources; generally soft.
Do. Southern Hospital.	6	1	38	200	– 1192	
Do. Northern Hospital	4	3	6	146	– 2015	
Lancaster	0	0	0	70	0	No case for 5 years; very rare: water soft and pure
Preston	6	1	47	76	– 230	Stone cases rare; water soft.
Carlisle	6	0	37	52	– 400	Cases rarely presented themselves.
Devon and Exeter	6	1	15	230	– 1298	Water soft.
Barnstaple	3	2	8	100	– 925	Stone-cases rare; water hard.
Taunton and Somerset	0	0	0	92	0	No case for five years; only two in forty years; waters pure and soft.
Bristol Royal Infirmary	19	13	12	242	– 665	
Hereford	2	0	0	74	– 1560	Two in previous quinquennial period.
Cheltenham	7	4	13	90	– 395	Water rather hard.
Bath	12	8	14	120	– 448	Water hard.
Dorchester	3	0	12	60	– 661	Water slightly hard.
Salisbury	7	1	31	100	– 714	Chalk and green sand; water not hard.
Ryde	0	0	36	0	0	No case in five years: only seven in 25 years.
Southampton	12	6	22	100	– 379	
Brighton	22	7	32	165	0	Water very hard from chalk.
Reading	17	5	18	140	– 298	Water various; generally hard.
Guildford	2	2	4½	54	– 845	Water hard.
Canterbury	15	0	39	104	0	Water generally hard.
Dover	1	1	6	15	– 795	Water hard.
Bartholomew's Hosital, Chatham	15	9	16	68	– 156	Stone common in Kent.
Edinburgh Royal Infirm.	61	10	0	565	– 353	
Glasgow Royal Infirmary	60	18	25	584	– 492	Water generally soft and pure.
Paisley	3	1	20	138	– 1703	Calculus very rare; water soft.
Dumfries	0	0	0	100	0	None; only 11 in 30 yrs.
Aberdeen	47	3	60	300	– 184	Water generally soft.

TABLE OF STONE CASES *(Continued).*

Hospital or Infirmary.	No. of cases in Five Years.	No. below Ten Years of Age.	Average Age.	No. of Beds.	Proportion of Stone Cases to whole number of In-patients.	Remarks.
Perth	0	0	84	0	0	None ; stone very rare.
Dundee	2	2	9	260	0	Both operations on same patient ; water soft.
Inverness		0	0	120	0	No case in five years.
South Charitable Infirmary, Cork	10	3	36	108	0	
Monaghan	0	0	0	60	0	None ; only one in 35 yrs.
Limerick	0	0	0	100	0	No stone-case in either of the two hospitals for 10 years ; water hard.
Armagh	0	0	0	72	0	No case for many years ; water hard.
Roscommon	0	0	0	85	0	Only three cases in 27 years's practice ; water hard.
Maryborough	1	0	12	100	0	Only three cases in 20 years' practice ; water hard.
Carmarthen	0	0	0	40	0	Stone very rare ; no case for more than 7 years ; water soft.
Haverfordwest	7	0	55	12	0	See *Lancet*, April 19, 1873.
Bangor	2	0	12	14	1 to 172	Stone rare.
Swansea	4	0	28	55	– 467	Water pure and soft.
Eight London Hospitals ; viz., St. Bartholomew's, Guy's, University College, St. Thomas's, St. George's, Westminster, Charing Cross, Middlesex	280	98	26	2866		

The sources from which the patients admitted into the London hospitals came were :

From London and suburbs	125	From Bucks	8
,, Kent	37	,, Hants	7
,, Surrey	13	,, Yorkshire	7
,, Essex	10	,, Sussex	4
,, Wales	10	,, Lincolnshire	6

Others from scattered places.

Passing now to the second branch of my subject, permit me, before considering the causes of the excess of lithuria in this district, briefly to allude to its etiology and pathology. Although it is safe to assume that, when lithic acid deposit frequently occurs in the urine, there is probably excessive secretion, we must not forget that a diminution of the alkaline bases or over-acidity of the urine will lead to deposit, without any relative excess. The conditions of health and disease in which these circumstances obtain are too well known to need notice ; but I would ask, as bearing on this inquiry, whence is lithic acid derived? and where is it fabricated? Admitting that it is derived from the disintegration of nitrogenised tissues and from the transformation of the excess of albuminous food, it yet remains a question where or by what agency it is actually generated ; whether by the operation of chemical or electro-chemical changes in the blood itself, or in the tissues undergoing change, or by some secreting gland-cells in the liver, spleen, or kidneys. The office of the kidney, with reference to lithic acid, is still a moot question ; is its duty simply that of passive elimination? or has it the higher function of constructing and forming the lithic acid, urea, and other principles, out of the materials presented by the blood? Ever since the discovery of urate of soda in gouty blood by Dr. Garrod, there has been a disposition to degrade the function of the kidney, and to allow that it consisted in little more than mere osmosis, and that it simply removed that which already existed. Admitting that urea and uric acid may be formed independently of the kidney, it would seem probable, looking at the fact that healthy blood contains merely a trace of urea and uric acid, and also that, when the kidney is extirpated, these substances do not accumulate in the blood, it would, I say, seem probable that, in the ordinary healthy operations of nature, it is the proper function of the kidney to form as well as to eliminate the 10 grains of lithic acid and the 500 grains of urea which a healthy man voids daily. We know that, in certain diseased conditions of the kidney, the power of eliminating these nitrogenous principles is lost, or nearly so ; is it not possible that, in certain other morbid states, the opposite conditions obtain ; and that, out of the healthy blood, the morbid kidney may form and eliminate an excessive amount of urea or uric acid? Who has not seen, in persons prone to the deposit of lithic acid, an enormous quantity, almost a teaspoonful, voided in a day? and that without any excess of diet, or sign of extreme waste of tissue, or obvious dyspepsia, or ill-health of any kind. If this excess of lithic acid existed in the blood, *quoad* urate of soda, surely the phenomena of gout would be present ; but I have often and so keenly watched this occurrence, and, failing to detect any of the usual etiological causes, it has appeared to me probable that, just as other secreting organs vary in the quantity and quality of the fluid they secrete, so the kidneys, owing to some inherent morbid condition, may form and secrete, out of healthy blood, urine having one or other of its constituents in excess.

But, if, as I have said, there be a tendency to reduce the function of the kidney to that of mere osmotic elimination, I must notice the attempted elevation of another organ, the liver, into what I may call universal supremacy over all the healthy and morbid processes of nutrition and secretion. Not only has it the important glycogenic function and the secretion of bile, but it is also credited with the conversion of albuminoid matters from the blood, the food, and the tissues, and the formation of urea and uric acid. Arguing from the fact that urea has been found in the liver, and from some doubtful and controverted experiments showing that rather more urea was to be found in the hepatic than in the portal vein, and forgetful of the other facts, that urea has been also detected in the brain, the lungs, and the spleen, and that only a mere trace is found in healthy blood, we are asked to believe that, out of these three functions, there flows, in chief part, oxidation, sanguification, animal heat, and the depuration of the blood. It makes one almost stand in awe of one's liver, and believe that, having a liver, we could dispense with all other organs of digestion.

But, if the liver be thus comprehensive as to its physiology, what has not been said as to its pathology? Passing by the structural diseases of the liver, which are well recognised and understood, the list of diseases and symptoms arising from mere functional disorder, as set forth by Dr. Murchison, the latest and stoutest champion of the pre-eminence of the liver in disease, is too long even for mention here ; suffice it to say, that it includes most of the disorders of all the systems of the body ; of the nervous system, of the circulatory, respiratory, cutaneous, and urinary systems and organs ; and even such acute diseases as pyæmia and the typhoid state are supposed to be frequently the result of functional disorder of the liver. In my student-days, it used to be said that he who understood the nature and treatment of inflammation had acquired half the knowledge necessary for a successful practitioner. Now, it would be more correct to say, that he who understands the nature and treatment of hepatic diseases has little more to learn.

On this view, gout, of course, is said to be a mere symptom of liver-disorder, and the same is said of lithuria and all calculi composed of lithic acid or its salts ; and the practical deduction inculcated by Dr. Murchison and also by Sir H. Thompson is that, in the treatment of gout and lithuria, those remedies which are supposed to address themselves to the liver are to be preferred to those which diminish acidity and dissolve uric acid ; that alkalies and alkaline waters are to be laid aside as inefficient, and, at the best, but of temporary benefit, and that saline aperients and waters of that character are alone of real use. To this I would reply, judging from ample observation, that the saline aperient waters are not proved to act specially on the liver ; that they probably act chiefly on the stomach and alimentary canal ; that they are not so directly capable of removing gout or lithuria as the alkaline waters ; and that, when they do so act, they, like the alkaline remedies, are equally evanescent in their effect. I have the conviction that this tendency to exaggerate the influence of the liver in health and in illness displays the drawbacks of specialism in the study of disease, narrows the view to one stand-point, and encourages the old but loose habit of attributing every obscure symptom to a "disordered or a torpid liver". On the whole, it is safer to attribute lithuria to dyspepsia and malassimilation, which probably concerns all the digestive organs, than to fix the fault mainly on one.

Undoubtedly, the general dyspeptic condition above mentioned, which, in the opulent classes of society, is generally caused by overfeeding and over-drinking, over-work, and deficient oxidation, and in the poorer classes by other sources of derangement, is the most fertile source of lithuria. This source, however, is common to all places and to most countries, certainly to all parts of the United Kingdom ; and yet, as I have shown, there is the greatest possible variation in the tendency to lithuria in various places, and this brings me to the concluding question—What explanation can be given of this variation, and especially of the excess of lithuria in this district?—and when I say excess, I desire to guard myself by admitting that, although there probably is excess, this is by no means proved. It may be that the abundance of stone in Norfolk is due, not to actual excess, but to circumstances which merely determine the precipitation and separation of lithic acid in the urinary tract. Whether it be so or not—and I know no means of deciding that point—the question equally remains. It has often been asked, but never answered, and never argued, except in a negative manner.

One thing appears to me clear and indisputable—the abundance or rarity of the diathesis must depend mainly on local and endemic causes, aided by another agency, which, however, grows out of the endemic cause. Further, these endemic causes must be due to the physical geography of the district, by which is meant the soil, food, and climate; and, when we call to mind how powerful is the effect of the physical geography of a country on the mental character and on the civilisation even of its inhabitants, we may well appreciate, if we cannot always explain, its laws in the production and spread of various diseases. This vast field of investigation has been cultivated by many distinguished labourers of late years, chiefly in the tracing of general constitutional diseases; but its capabilities for the elucidation of particular local diseases is not even now fully recognised; and yet it seems probable that further knowledge in this direction will not only demonstrate the etiology of many local diseases, but will direct into fresh and more accurate lines the study of their pathology, and even lead to more rational means of prevention and cure.

Taking these causes *seriatim*, the climate of Norfolk has by many authorities been thought to be a powerful factor of lithuria. A glance at the map will show how much this county is projected, as it were, into the sea. From Yarmouth to King's Lynn is a very long coast-line, not less than seventy miles. During the winter and spring months, there is a great prevalence of north and east winds; and it is held that these bleak cold winds, by checking cutaneous secretion and deranging delicate digestion, cast additional work on the kidneys and liver, and so derange their function and lead to lithuria. Dr. Prout somewhat favoured this view, and the late Mr. Crosse had a strong belief in it. Rigid investigation, however, will show that climate can have but the very smallest influence. Admitting that cold, drying winds do prevail and are keenly felt in this county to a most unpleasant extent, it is not proved that they exceed those of other places. In the North of Scotland and in many of the exposed parts of Ireland, the temperature must be as cold as it is here, and yet it has been shown that we have almost as many cases of stone as in all Ireland. Moreover, in hot climates, such as India and in some parts of China, stone is not uncommon, while in Sweden and Norway and some other very cold countries it is very rare. Again, although it is the fact that we pass more lithic acid in winter than in summer, this is probably due to the greater muscular activity we use in the cold season, and to the consequent greater amount of tissue-metamorphosis. The natural effect of arresting cutaneous secretion must be to increase the amount of the water of the urine by which lithic acid and other solid constituents would be better held in solution, and so the liability to calculous deposit would be diminished; and, *per contra*, the increased cutaneous secretion from summer heat may be supposed to lead to concentration of the urine, and consequently to the liability of lithic deposit. The effect of cold is to diminish the acidity of the urine, and prolonged immersion of the body in cold water is said to render it alkaline. Observation, based on the localisation of 1500 stone-cases in Norfolk, shows that fewer have come from the villages on the coast, where the exposure to cold is greatest, than from places more inland. These and other considerations which might be adduced did time permit, prove, I think, that climate alone has but little influence in producing lithuria.

The food of the poorer classes in this district, consisting as it does chiefly of good bread, cheese, and a small modicum of meat, chiefly pork, has, however, a speciality which has attracted attention, and has been assigned by many, notably by Prout, as a helping cause of stone. It consists of dumplings made of flour, water, and yeast, which may be described as boiled bread, and are universally consumed by the poorer classes with dripping or treacle. Those who think this article of diet conduces to stone give no other reason for their opinion, than that it is apt to disagree with the stomach and lead to malassimilation. I cannot, however, admit the impeachment against the popular dumpling, for I do not believe that it is hostile to good digestion; it is never referred to by patients as a probable cause; and, when stone-cases are admitted into the hospital, although in all instances remedies are prescribed of a nature likely to check lithic deposit, I never heard that the dumpling, which is a part of our hospital dietary, was forbidden. There is, however, one article of food, viz., milk, the want of which, in my opinion, does influence the development of lithuria very largely. More than twenty years ago, it attracted my attention, and I dare say that of others, that stone in the bladder, which, in the young children of the poor, is so common as to constitute more than half the whole number of cases, is seldom or never met with in the more opulent classes of society. In some hundreds of cases of stone which have passed under my own observation, I have met with but one occurring in a child under 5 years, whose parents were well to do in the world; and this experience has been corroborated by all those surgeons of whom I have made inquiry. To what is this marked contrast due? Mr. Thomas Smith, in a paper on the subject (BRIT. MED. JOUR., vol. i, 1869, p. 442), summed up the probable explanation by attributing it to "insufficient and almost arrested cutaneous excretion from imperfect clothing and uncleanliness, tending to disturb the due proportion of the normal constituents of the urine, and lead to a relative or absolute excess of some one constituent; while the digestive organs of poor children are constantly liable to disarrangement from unsuitable food or from irregularities in their mothers' diet". Agreeing in the main with this account, I would go further, and say, that the prevalence of stone amongst the children of the poor is largely due to the impossibility of their obtaining a proper and sufficient supply of sound milk; the insufficient clothing and uncleanliness referred to probably exist everywhere, in Ireland and Scotland as much as in England, and yet Ireland has but little stone as compared with England. Again, in the table of hospital cases which I have compiled, the most remarkable differences with regard to stone in children appear. In the Midland Counties, a large majority of the cases are in young children, while in Aberdeenshire, where stone in the adult is common, there are but very few cases in children. In Yarmouth, a town on the east coast, fifteen out of twenty-one were under 10 years of age, while in Aberdeen, which is similarly situated, there were only three cases out of forty-seven under 10 years. Referring to Dr. Edward Smith's report to the Privy Council on the food of the labouring classes, it appears that, in Ireland, Wales, and Scotland, the poor obtain an abundance of milk, while in Warwickshire, Norfolk, Suffolk, Kent, and other places, very little is obtained. I am warned by time that I may not go more into particulars on this subject; but I affirm that strict inquiry shows that the abundance of stone in children of urban over rural populations, and of one district over another, will be found in strict accordance with the difficulty of procuring milk. The one exception mentioned is very corroborative of this view. A few years ago, after removing a stone from a child of well-to-do parents, I was remarking to one of my assistants that this was the first instance in my practice, and that I attributed the general absence of stone to milk; the mother volunteered the statement that, in a large family, this was her only child who never could take milk, and who, therefore, never had any. To this lamentable want is chiefly due not only this disease of stone, but probably a vast many of the diseases which attend the early years of childhood; which are prolonged into after years of imperfect development and early decrepitude. If ever true wisdom was combined with much false political economy, it was when John Stuart Mill maintained that those who live and labour on the soil have rights in the products of the soil beyond that of mere wage. It would, indeed, be a glorious result of statecraft if, instead of the futile wrangling over the sale of fermented liquors, which has wrecked one powerful Government, and, by the disappointment of greedy expectants, has gone far to sap the popularity of its successor; if, I say, by some equitable enactment, those who possess and those who occupy the land should be held responsible for the production, in sufficient abundance for the wants of the poor, of that which is now a costly luxury, but which nature points out to be the chief, I may say the only, need of early childhood.

One other fact connected with the food and beverage of this district deserves mention. The light but fertile soil of Norfolk is peculiarly adapted to the growth of barley, and I believe I am right in assuming that this is one of the greatest malt-making districts of the kingdom. One effect of this is, that beer is the common beverage of all classes. The labourer seldom touches spirit of any kind, but his libations of strong, sweet, new beer are liberal and often deep. The effect of malt liquor in provoking gout and lithuria is undoubtedly great, and, if we contrast the beer-drinking Norfolk peasant with the milk and whiskey-drinking Irishman, we shall probably be right in attributing somewhat of the prevailing lithuria to this habit.

Associated with the soil is the geological structure. Stretching diagonally across the south-eastern part of the kingdom, is the great chalk-formation, and Norfolk may be considered almost its centre. Close beneath where we now stand there is a thousand feet in thickness of chalk; it crops out on the surface, is visible in every pit, and impregnates the superjacent deposits where itself dips deep. Corresponding to this south-eastern chalk-district, there will be found a large amount of lithuria; both the death-rate and the hospital records combine to prove this, and I have the conviction that a more minute inquiry than I have been able to make would demonstrate even a still closer relation than I have been able to show. What reason can be assigned for this striking correspondence? The only probable cause that I can discover lies in the character of the drinking-water, and the only peculiarity of the drinking-water is its excessive hardness. That there is an excessive amount of carbonate of lime in water derived from the chalk, will probably be readily allowed. Mr. Sutton, the eminent chemist of this city, has given me the analysis of eighty different sources of water, chiefly well-water, from various villages of Norfolk, and I find that the average hardness is 33 deg. of Clark's scale; while, from forty Government analyses of water from different towns, the average hardness is 11 deg., and, from sixty-five different sources supplied to Government by Dr. Letheby, the average hardness is 9.2. I am aware that water supplied by public companies is generally less hard than that derived from wells; and I admit that we are not in possession of sufficiently detailed analyses of local sources of drinking-water to justify very close deductions. Still the broad fact remains, and I know no other peculiarity likely to act as a probable cause. The drinking of hard water has long and often been held to influence the production and growth of stone; but I know of no explanation or argument in favour of it, except that of Prout, who says, "that hard waters, in conjunction with other favourable circumstances, have a great influence in producing stone, I have no doubt; they derange delicate stomachs very considerably, and have a tendency to produce lithic sediments, though they generally act by causing a deposit of the crystallised sediments or gravel in those disposed to them". I am not competent to discuss the chemical action of lime-salts in leading to lithic acid deposit; but I note the fact, that both lime and lithic acid are exceedingly insoluble; that there is no chemical affinity between them; and that, although lithate of lime has been said to exist in the mixed lithates so often seen, no calculus has ever contained it. Is it not, therefore, possible that the constant filtration of lime in excess through the system may encourage the separation and deposit of lithic acid in the urinary passages? In seeking information on this point, I inquired of all my correspondents as to the hardness of the drinking-water in the various districts, and I found very varying statements; many were sceptical as to its having any influence; but the balance of evidence was in favour of stone-cases being connected with hard drinking-water. I have seen so many instances of persons who have come to reside in Norfolk rapidly acquiring the lithic diathesis; of others who lose the tendency immediately they leave the county, and of others whose tendency varied with their residence even in the district while the habits of living have remained the same; that I know not how to doubt the effect of the drinking-water on them. Against this view, it has been urged that, if hard waters had any effect, they would show it in males and females equally; that hard waters prevail largely over soft in most places, and that the drinking of hard waters predisposes rather to the oxalic and phosphatic than to the lithic diathesis. In reply to the first objection, it may be said that all influences act more powerfully on men than on women, and that renal, if not vesical, calculus is frequent amongst women; that, although three-fourths of all drinking-waters may be hard, the waters coming from the chalk may have some special peculiarity, and that, in other places, as in Ireland, the hard waters may be counteracted by other favourable circumstances of food or drink. Moreover, in the Midland districts, where, I believe, the water is very hard, I have shown that stone is also very prevalent. As to the effect of hard water in leading to the oxalic or phosphatic diathesis, as described by Dr. G. Harley and Dr. Murray, I can only say that, in my experience, it is not the fact in this district. I have now operated for stone in nearly 200 cases, and I can only call to mind three cases in which oxalate of lime calculi were removed from adults, and these cases were curious; in one, the central half of the stone is pure uric acid, and the outer half oxalate of lime; and this patient left Norfolk, probably with an uric acid stone in his bladder, to reside in North Wales, and immediately the uric acid became covered with oxalate of lime; the second case was in a Norfolk man, who also had resided out of the county; and the third was a private in a Dragoon regiment, who had very recently come to live here.

I leave this question of the effect of hard waters, therefore, as an undecided one, requiring fuller investigation, and especially the tracing the absence or prevalence of stone in other countries and connecting it with local influences or endemic causes.

Lastly, I have to say a few words on hereditary tendency and family predisposition as a cause of stone in this country; and here I cannot help believing we have an influence acting slowly but potently. I can understand, and would maintain, that the hereditary influence must be but slight as to its immediate effects, and must probably require the other favouring influences mentioned to act at all; but with them, in the course of generations and centuries, it would probably so grow and develop as to create in part the admitted abundance. Let me put the proposition in another way. Could we remove the present population of Norfolk into Ireland, and import the same number of Irish into Norfolk, it is probable that no great change would quickly follow in the respective manifestations of the lithic diathesis; but it is most probable that, in course of time, owing to the absence of endemic influences, the Norfolk diathesis would not maintain itself in Ireland, and the Irish substitutes here would as certainly acquire our tendency. I cannot appeal to statistics on this point, and therefore I may be excused for again referring to my own experience. I have never operated on a father and son, but I have very often traced the disease back to father and grandfather. In five instances, I have operated on brothers; and in four other instances I have operated on one brother, and other surgeons on another. Mr. Clubbe of Lowestoft has given us a curious history of a stone-family. Three brothers were cut for stone by Mr. Clubbe; a fourth passed a stone; a fifth child died, aged three months, with every symptom of stone; a female child now has vesical irritation and bloody urine. The father and mother are constantly passing large quantities of lithic acid; the grandfather passed one stone, and the grandmother seven; a great-uncle was cut for stone, and six uncles and four aunts all suffer either with fits of gravel or from lithic deposits; and, to finish, a cousin passes calculi. (See *Lancet*, July 1872).

There is considerable historical testimony in favour of this hypothesis. We know that Montaigne and his father both died of stone in the bladder, and we remember how he moralises on the incomprehensible wonders of the hereditary transmission of mental and bodily resemblances and infirmities. The celebrated minister Sir Robert Walpole, and his brother Horace (who once represented this city in Parliament), were both afflicted with stone, and both resided in this county; and their mother also had stone.

What we know of the genesis and growth of stone would lead us to acknowledge both constitutional and local causes; and there is surely as much inherent probability in favour of its hereditary transmission as in that of gout, of cancer, or of scrofula. The difficulties in the way of admitting this influence in one case equally, or nearly equally, exist in the others, and are principally those which beset the whole question of inherited predisposition to disease. Dr. Richardson, indeed, objects to this theory, on the ground that stone is far less frequent in females than in males; whereas the tendency, he says, from the parent should pass alike to male and female. To this it may be replied, that the same influences which govern the transmission of gout chiefly in the male issue are equally dominant in the case of stone; and these influences consist in the harder living and the harder life, the greater exposure, and the rougher work of men beyond women. Besides, although the relative proportion of *vesical* stone in males and females is about 25 to 1, it is far less disproportionate as regards *renal* stone. I cannot, of course, give the relative proportion in the latter case; but it is unquestionably the fact, that renal calculus in the female is common in this district.

Time warns me to conclude. Permit me to sum up by saying that in every part of the British Isles there is, so to say, a film of lithuria; that constitutional and individual causes act everywhere; that, in some places, local and endemic influences co-operate to thicken the film into a decided layer; in others, the constitutional tendency is counteracted by the local conditions. In this particular district, the local favouring influences consist, to a very trivial degree, in the cold climate; in the universal consumption of malt-liquor; possibly, I will even say probably, in the constant daily use of exceedingly hard drinking water; and, lastly, in the accumulated effect of hereditary predisposition.

I cannot, however, pretend, in what I have written and read to-day, that a full and complete explanation of a very interesting and important fact is to be found. The subject is so abstruse in itself, so mixed up with profound physiological and chemico-vital processes, so intimately associated with what essentially we know so little about—viz., the nutrition, the growth, and the decay, of tissues and organs—that, in the present state of knowledge, we must, I fear, admit our darkness, and search and strive for increased light. I may, however, hope that I have stimulated, if I have not satisfied, the desire for fuller information; and if, by the help of such additional facts as have been adduced, and by the exposure of some errors and vague theories, the future search for truth may be made easier, I am content to believe that towards this end I have made a slight contribution, and have not wholly wasted a golden opportunity, or overtaxed your indulgent patience.

THE HEALTH OF LONDON.—During last week, the number of births registered in London was 2,219; and of deaths, 1,505. Allowing for increase of population, the births were 83, and the deaths 297 below the average. The annual death-rate from all causes, which in each of the two previous weeks had been equal to 25 per 1,000, declined last week to 23. The 1,505 deaths included 20 from measles, 58 from scarlet fever, 4 from diphtheria, 16 from whooping-cough, 35 from different sorts of fever, and 293 from diarrhœa. Not a single case of death from small-pox was registered. The fatal cases of diarrhœa, which in the two previous weeks had been 389 and 365 respectively, further declined last week to 293, or 71 below the corrected average number.

ADDRESS IN OBSTETRIC MEDICINE,

BY

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PUERPERAL PYÆMIA, ETC.

NOW-A-DAYS, as compared with even a quarter of a century ago, obstetrics have flourished and grown so rapidly, that he who is called upon to give an address such as this cannot but feel embarrassed in the selection of the matters to which he would call attention. If he is not to present his audience with a mere catalogue of details, he must exclude great departments; if he is not to be a mere registrar and exponent of the opinions of others, he must further restrict the scope of his review.

At one time, and that so late as last century or early in this, the whole field of medicine could be with comparative ease occupied by one mind. The same man practised and also taught all its branches, medicine, surgery, and their subdivisions. If one man proposed to do this now, we should look on him as a foolish pretender. The great medical genius of the scientific Helmholtz already has narrow limits which it cannot overpass; the great practical talents of Thomas Keith and of Spencer Wells are restricted in their beneficence by close boundaries.

Rarely and at long intervals in the course of the ages a powerful mind is produced, such as that of a Newton in physics, who, using the scattered knowledge accumulated by his predecessors, succeeds by his own discoveries and generalisations in restoring simplicity where before there was complexity, and in making for his successors a sort of royal road to the science of his day. But such a master mind, while on the one hand it simplifies and builds by generalisation, does, on the other hand, increase complexity and number of incoherent details by stimulating progressive inquiry. We hope we shall never again see the return of those dark days when one man could dare to profess or to practise the whole science and art of medicine.

It is by division of labour that we secure growth, and it is vain to regret the feebleness of our powers. As each department of medicine grows, it is, like its parent stem, doomed to subdivision. He, however, who brings the widest attainments and the most varied talents to bear on his chosen branch, will, *cæteris paribus*, be the greatest in his department. But who is equal to the demands of any department? To tell the truth, there is not among us a single man who has mastered all the details and work of even one single individual topic. One finds that the histology of his branch fully occupies his powers; another is similarly placed in regard to its chemistry; a third finds full occupation in its physical relations; a fourth, gleaning behind all these, finds his hands full in trying to be practically useful to his patients.

Partly as a result of the subdivision of labour, greater progress is being made now than at any previous period in the history of medicine; and there is no greater exhilarant and stimulant of enthusiasm than that very progress which is the result of well-judged zeal. In the field there is work for minds of every kind, for talents of every description: for him who truly observes and accurately notes details, for him who arranges or classifies, for him who experiments, for him who suggests and demonstrates conclusions, for him who confirms or overthrows by the process of verification. Every one of us should take some part in this work of advancing medicine, a more important part than that humble and useful one in which all should, in addition, take a share, the attentive listening to and applauding the diligent and the successful.

There can be no doubt as to what is the paramount cause of our more rapid progress in recent times. It is the adoption of proper method; it is the modern attempt to found or still further build up a science of medicine on what is known as the Baconian plan. Imagination and ratiocination are not even now excluded from the operations, but nothing is held as proved by mere reasoning; and when the philosopher strays far from the solid shore of rocky facts he loses his intelligent audience, who have no interest in his occupation of beating the air. The medical man proceeds nearly in the same manner as the physical philosopher. He observes by the naked eye, then by the microscope, and this instrument he aids by numerous experimental plans of hardening, cutting, tinting, and staining. He applies so far as possible physical laws to explain natural and morbid processes. He institutes new experiments to elicit truth. He makes the same appeals to chemical science, and to the practical chemist, as he makes to physics and the physicist. He reasons on what he obtains, and tests the truth of his conclusions, verifying by further observations and further crucial experiments.

Everyone who knows the history of midwifery must admit that it is by these methods alone that progress has been made. The greater part of what has been attempted, and the greater part of what is being attempted, is not according to this method; and the labour is vain. The substantial progress, often seen at the time only by a few, and appreciated by a small circle, is achieved by scientific method, and is like the grain of mustard-seed which grows and grows till it is a great tree. Obstetricians can justly boast that, in some departments, mere obstetrical knowledge is ripening into a science of obstetrics, a boast which happily some other subdivisional branches of medicine can truly make.

The first subject to which scientific obstetricians, as a matter of course, direct themselves, is natural labour in all its varied aspects; and it is in some parts of this that the greatest advances have been made. The great idea of "mechanism" so loudly proclaimed by Levret is in process of being worked out. The first stages have been nearly completed by the writings of W. Hunter and Smellie, of Ould, Solayres, Saxtorph, and Nægele. But, now that their inquiries are completed, we are landed in a more difficult and higher stage of this investigation, a stage demanding much more than the good powers of observation and description which sufficed for the former. Standing side by side with contemporary workers at these outposts of science, we are not good critics of the comparative value of their works; but among them we may signalise names familiar to you all—Hecker, Kehrer, Schroeder, Poppel, Haughton, Schatz, Küneke, Schultze, and many others.

The majority of practitioners, however, take far more interest in the management of morbid labour than in any other department of obstetrics; and this for the evident good practical reason that there lie the questions of the highest, immediate, most pressing urgency—their difficult cases and how to manage them—questions which, in the interests of the poor patients and of the anxious practitioners, brook no delay, which cannot wait for the slow decisions of science, however valuable these may be when at last they do come. But, even though science is not at hand to offer the solution of difficulties in practice, it is the duty of every obstetrician, with a view to the advantage of his confiding patients, to watch the progress of science, if not to contribute to it, as well as to select more or less empirically among modes of treatment. He should at once contribute to build up science, and at the same time be ready to meet in the field of practice the great difficulties that suddenly come in his way. Like the Jews of old, he should work with one of his hands in the permanent work, while with the other hand he holds a weapon wherewith to fight against Sanballat and Tobiah. He who directs his professional life after this manner will certainly be the best practitioner, the most useful to his immediate patients, and peradventure happily useful indirectly to the patients of all instructed practitioners in all coming time.

There is no department of obstetrics from whose scientific progress more is to be expected by the mere practitioner than that of morbid labour. This is a branch in which a great deal of valuable work has been expended with invaluable results, but much more still is required before we can style our practice rational or scientific. Morbid labour in contraction of the pelvis is a well known and typical part of this practical department; and, to permit brevity as well as to give point to our remarks, let us be supposed as referring to it alone meantime. Now, where is the practitioner to look for guidance in this matter? He can nowhere find a secure resting place. What views is he to adopt as to mechanism? What treatment is he to pursue? What instruments is he to use? Whom is he to adopt as his guide—Collins, or Simpson, or Dubois, or Hodge, or Barnes, or Hicks, or Spiegelberg, or Schroeder, or Leishman? He must act, and to the best of his judgment and ability. To decide among these able and ingenious but discordant advisers he is unable, and there is no hope of his being very soon in a position to do so. However dogmatically the teacher may write on these subjects, he settles nothing for anyone but himself and his disciples. The elementary data necessary for arriving at conclusions on these subjects are not yet acquired; but they are being rapidly elaborated. When they are worked out, then there will be a vast diminution of the area over which there is at present mere difference of opinion; and many practical directions will flow from such knowledge which, not then resting on opinion, will command, nay compel, general consent.

To secure this position for the practice in contraction of the pelvis, there must be, first of all, a nearly complete view of the whole mechanism of natural labour, not merely of what is popularly called mechanism in our text-books, and we know that we are very far off from this complete view. Then pelvimetry must be improved, and even uterine craniometry. Then the modes of progress of labours in contracted pelvis of different degrees and kinds, and both when assisted and when unassisted, have to be made out. Then we have to study the explanations of these modes of progress. Then we have to accumulate experience and laboratory experiments of complexity and variety in order to discover what is the best direction of treatment. Then we have by similar means to find the tools best suited for effecting our varied purposes.

In every one of these departments, we are proud to say, most valuable labour is at present being expended, and light is being converged on this great practical matter—delivery in cases of contracted pelvis. Till this light makes the subject clearer than it is at present, we can have no final adjustment of our differences and difficulties. Mere dogmatic empirical teaching must be allowed to prevail. We must, as people do in matters of politics and religion, choose our authorities and do our duty under them as we best can. It would be tedious to enumerate the names of men who have recently contributed to the progress of this subject; but, at the risk of making omissions which are to be regretted, we may signalise among foreigners Michælis, Litzmann, Hecker, Kehrer, Dohrn, Spiegelberg, Olshausen, Fehling, Cohnstein, Pajot, Joulin, Breisky, Braun, Martin, and von Haselberg; and among ourselves Radford, Churchill, Simpson, Barnes, Hicks, Playfair, and Kidd..

After natural and morbid parturition come subjects of far more difficult investigation, natural and morbid puerperality. As their secrets are far more deeply hidden, so our progress in bringing them to light has been less and is more recent; yet it is made in a way strictly analogous, if not identical, with that which has conducted us to so much acquaintance with parturition. The steps of natural healthy recovery from childbearing are first investigated; and here much has been attained through the labours of Kölliker, Farre, Priestley, Robin, Friedlander, Turner, and many others. Then, in logical order, we come to morbid puerperality, the subject more immediately interesting to accoucheurs, one of the most important topics, not in obstetrics only, but in the whole of medicine, one which has been discussed with an excessive copiousness, but with very little advantage till recent times. There is in the whole large library of puerperal diseases not a work of considerable value before the early part of this century. We have to come down to the names of Dance and Cruveilhier, and Robert Lee, and Virchow, and Pasteur, and Sanderson, and Lister to find the indistinct bridle-path which is quickly becoming an evident broad and great line of beneficent scientific progress, a progress whose practical results will overflow, not obstetrics merely, but surgery also and medicine proper. Old books on puerperal diseases are full of disjointed facts and mere discussions. It is only now when we have resorted to statistics, to anatomy, and to researches by the microscopist and the chemist, that our way clears up towards a comparatively full intelligence of the awfully important puerperal diseases. The old works of Puzos, of Willis, and of others, are nearly as valuable as most of those of the last generation of authors. But since the times of phlebitis and lymphangitis began, this department has ceased to move in a circle of no progress, and almost every day we are reaping new increments of knowledge, not only valuable in themselves, but indispensable to still further advances.

In connection with this subject, there is a preliminary inquiry whose importance is self-evident, and which, remarkable to relate, has only recently been discussed formally, and with sufficient means—the mortality in childbed, or total mortality of childbirth and in childbed. How many women die from all causes during childbirth and in the puerperal state? Of course, such a question, lying on the surface, has been considered and answered, but the responses have been most insufficient and erroneous. The ordinary belief seems to be that there is, in connection with childbirth and lying-in, no mortality in a well conducted practice. Miss Nightingale says that deaths from puerperal diseases ought never to arise after delivery in a properly conducted and managed institution for lying-in women. In a late number of one of our principal medical journals, appears a report of one of these properly conducted and managed institutions. The hospital is a military one, and not a death is reported; and the article is evidently written with a view to show benighted civil obstetricians what is the result of proper conduct and management. I have often heard sanguine medical men say that in the course of a long and large practice they had not had a single fatal case. Now all such beliefs, reports, and statements, are mere encumbrances of the inquiry, and are to be thrown overboard, if not more ungracefully dealt with. We have no time to trifle with such nonsense, for we are everywhere surrounded by awful deaths in childbirth and in childbed, where there has been, so far as can be discovered by ordinary mortals, nothing but proper conduct and management.

Another response to this great question is familiar to all; it is derived from Merriman, and has often been repeated, not only as evidence of the mortality of childbirth, but also to show the successful progress of obstetrical therapeutics by the rapid diminution of the maternal mortality. It requires such a stretch of credulity to place the slightest confidence in Merriman's tables, that I do not regard myself as justified in taking up your time any longer with them. More recently, and on much higher, even on official authority, somewhat similar statistics have been proclaimed as evidence of the progress of obstetrical therapeutics from decade to decade; but, alas for us, the evidence will not bear inspection, and we shall not inspect it. Even now, in 1874, we are only striving to reach a sound conclusion as to this mortality; and after all our labour, official and private, have no statistics to be relied on for the comparison of the results of successive decades or of longer periods. The importance of the question needs no demonstration, and it must be solved in a scientific manner. We are seeking not what we fancy or wish, but what is. There can be no doubt that the death-rate does represent marriage and childbearing as a most perilous ordeal for a young woman to encounter; and it is not good reasoning to use this, as a great author has done, to prejudice us against receiving what may be proved. During the whole life, including intrauterine existence, the female half of mankind has a great advantage over the male in point of mortality, except that for a considerable time childbearing brings the female nearly to the level of the male; and that, for a less time, the risks of primiparity sink her below him. Childbearing is in these kingdoms the special, and, so far as known, the only special great cause of enormous increase of female mortality above what it would otherwise be. Primiparity produces a great exaggeration of the childbearing risks. It is this mortality that we seek to estimate, and you observe it is of the highest human interest; but it is for medicine of special importance, being a cardinal element in the solution of the question of the value of hospitals. These noble institutions, the lighthouses of practice, have had their reputations tampered with on the most insufficient grounds. If we are ignorant of what may be called the normal mortality of childbirth and lying-in, how can we justly judge the hospital mortality? If we do not estimate the excess of special, and, in a sense, just causes of mortality in hospitals over those acting in the country generally, how can we fairly measure the salubrity of maternities? It is impossible to do so, yet there has been a lamentable and injurious amount of such mere cavilling with institutions whose reputations should be too sacred for any but the most solemn and logical consideration.

Among the Chinese, puerperal mortality is held, according to Dr. Jamieson, to rise as high as from 1 in 12 to 1 in 20—an alarming and scarcely credible statement; yet Dr. Thin, lately of Shanghae, believes it to be true. Some statistics of the city of New York, recently published by Fordyce Barker, yield a puerperal mortality of 1 in 35, a terrible result; and on the surely extravagant admission that a quarter or even half of the births were not registered, we have here a very high figure. Faye states the puerperal mortality of Prussia as 1 in 84; and that of Finland, according to Pippingskjöld, as 1 in 106; and that of Norway as 1 in 131. I found that in Edinburgh and Glasgow, in 1855, the mortality of married women within six weeks after delivery was 1 in 107 at least. From a large collection of data, and trying, however rudely, to get an approach to exactness, I estimated the mortality within four weeks after delivery as about 1 in 120.

Hervieux says there are places where for a long series of years this rate has not risen above 1 in 1,000; but he must derive his information from some other planet than this, for certainly there is no such abode of the blest known among the inhabitants of this earth. Le Fort estimates the rate as 1 in 212; but his figures and reasoning are such as to render this determination unworthy of any reliance, as has been sufficiently demonstrated. Farr has carefully estimated this rate, and arrived at the conclusion that it is 1 in 190. But, however much we may be disposed to bow to his authority, we are bound to scrutinise his method; and, on doing so, it turns out to be very unsatisfactory. He is dealing with a system of registration which is not compulsory; he seeks to verify the returns relied on by appeal to the returners, which is something like trying to correct an error by itself; he made no independent search for the deaths of the delivered women; he made no correction for twins, nor for still-births. On all these accounts I regard his result as being not only out of keeping with the best of the others, but as not especially reliable. The data of foreign countries which I have given may be very good for aught I know, but then I have no positive knowledge of the care or of the circumstances under which they were compiled; yet we have always been led to regard the Swedish and Prussian returns as very valuable.

In this state of matters I was not disposed to allow the point to remain unsettled for this country, and I recently undertook the somewhat onerous task of thoroughly searching official returns, with a view of getting a figure that could be relied on. The determination which

I am about to give can be erroneous only in the way of making the rate too low.

I found that there were registered in Edinburgh and Glasgow, in 1869 and 1870, about 52,000 births, and I found that within twenty-eight days after delivery at least 1 in 139 of the mothers had died. Now, several mothers additional may have died, and their deaths have been elsewhere registered, they having left their original residences. These would slightly increase the rate if they were found; but the rate is too low for another reason—namely, that all births of dead children are omitted. Now this very serious omission of a large proportion of the most dangerous labours leads to this rate of 1 in 139 being far too low. How very far too low, we may to some extent conceive when I call to mind that, among Collins's 16,414 women delivered, 164 died; and of these 164, nearly one-half had dead children! It may be said, then, as the result of this investigation—the most careful and complete, so far as I know—that at least 1 in 139 died; and I add, for the reasons above given, and for others, that I have no doubt that at least 1 in 120 died. These terrible results, gentlemen, or something closely approximating, we must accept meantime, however forcibly they may demonstrate that marriage and childbearing are a fearful ordeal for a young woman to encounter.

My estimate, gentlemen, of this lamentable mortality of lying-in women is 1 in 120 within four weeks; and it is useful to have a fixed period of four weeks for various reasons. But we must not allow ourselves to be misled into thinking that puerperal mortality is over in four weeks. You are well aware that many bad cases linger on beyond the month of four weeks, to die beyond the reach of these restricted statistics; and that many others owe their deaths to puerperality, although the occurrence is later than four weeks after the labour. I have already mentioned that I have most carefully prepared statistics showing a mortality of at least 1 in 107 within six weeks after delivery. Further, I have statistics analysed which do, I believe, show that the mortality of puerperal women does not again fall to its ordinary level till a period not of weeks, but of months, after delivery. It would be a grand work for our young statisticians to show the wave of special mortality, beginning with conception and ending some months after delivery. Statistics have already shown the great rise of mortality, or the great wave of it that passes over the sex during the childbearing age. But we want much more than this, and especially the wave for the average individual pregnancy, labour, and lying-in.

I must conclude this already too long discussion by saying that I believe that in this country nearly 1 in every 100 women delivered at or near the full time dies in parturition, or before the puerperal state and its effects have passed over. This is, no doubt, an awful statement for women and for men. Whether it will deter them from marriage or not when they come to know it I cannot say, for I have no analogy to guide me. The risk from railway accidents is comparatively a mere bagatelle, when taken in any point of view, and I have made no inquiry as to its influence in deterring from travel.

Even the fear that women may be deterred from marriage and childbearing must not deter us from unmasking the real extent of the dangers they encounter; but I must only spend a few words on puerperal morbility. Besides dying at a rate of nearly 1 in 100, women have to encounter a vast amount of disease and suffering which does not end fatally. This has been called morbility, in contradistinction to mortality. Miss Nightingale and Dr. Farr, besides having very favourable views of mothers' chances of survival and recovery, go a great deal further than this, and enunciate a doctrine to which it is difficult to believe they have ever given a moment's reflection. They regard ordinary women as having no need of long nursing after lying-in; for it is all over, say they, in a few days after retirement and delivery in the rude compartment of a hut. It is unnecessary to take up the time of any one of the most moderate experience in confinements and diseases of women among the poor or the rich, among the civilised or uncivilised, with a deliberate demonstration of the tragical injustice of their statement. I only refer to it here as it forms a contrast with the truth as to puerperal morbility. This subject has been illustrated by many authors, among whom are Späth and Landau, who confine their researches to morbility shortly after delivery. The latter, taking temperature as a criterion, estimates puerperal morbility as affecting 1 in 6. His valuable experience was in an obstetric hospital, and it requires corroboration. Besides this, he takes no account of the many ulterior diseases coming on after so-called recovery.

Deaths during parturition or the puerperal state are often conveniently arranged in three sets:

1. Childbirth deaths.
2. Puerperal or metria deaths.
3. Accidental deaths.

A woman dying during *post partum* hæmorrhage undergoes a childbirth death; a woman dying of puerperal fever undergoes a puerperal or metria death; a woman accidentally poisoned by laudanum shortly after delivery undergoes an accidental death. In cases such as these the placing of the death in its class is easy, but there are a large number of cases regarding which there may be just difference of opinion as to which of these three groups should receive them: hence the classification as used in practice cannot be relied on as embodying a scientifically accurate statement of any point—a circumstance which, for the conduct of various important discussions, is much to be regretted.

But though this is so, there is unanimity in placing puerperal fever deaths in the second category, that of puerperal or metria deaths, and in giving it the horrid pre-eminence over all other causes of mortality in the three combined categories. For obstetricians and for the world, then, this is the subject of first importance in midwifery, and it has attracted a corresponding amount of attention, and never more than at present, and certainly never with so much advantage.

The oldest writer on puerperal fever, Willis, whose book was published two hundred years ago, propounded a theory of this disease which is remarkably like that now in vogue among the best pathologists. He regarded it as having some connection with an uterine wound; but then he did not know the nature nor the anatomy of the uterine wound, and he did not think any of the other wounds or injuries of the lying-in woman important in the matter. He regarded the disease as a fermentation in the blood, but his notions as to fermentation, its causes and results, were imperfect in themselves, and extremely unlike ours. He attributed to fancied sulphureous particles somewhat of the importance and place that are now given to the bacteria of Mayrhofer, of Lister, and of Heiberg, or to the micrococci or globular bacteria which Orth, and I believe Heiberg also, regard as holding the supremely baneful position among these noxious beings. Our new theories of puerperal fever must be tolerated because, as philosophers, we delight to frame them; and they have a certain utility which this is not the place to discuss. The new theories far surpass the old ones, which deserve more thorough displacement and rejection than the profession has yet awarded them. The new theories are based on an accumulation of facts whose collection is most creditable to modern science. These valuable facts have been the fruit of the ceasing to philosophise, and the struggling to observe and to experiment which are the characteristics of modern pathology. As in parturition, so in the puerperal state, the progress has arisen from discovering mechanism, although we do not speak of these advances in such terms. What are our discoveries in the anatomy of the lymphatics but the mechanism of puerperal fever or a part of it? What are thrombosis and embolism? What is the conveying and diffusion of bacteria, or of any septic poison? What are our antiseptic precautions? By statistics, by observation, by experiment, we accumulate facts more or less pertinent to the subject, and we arrive at theories having a wider and more solid basis than those of our predecessors, who long and till recent times, misled by the *ignis fatuus* of an essential puerperal fever, were destined to make little real progress till they threw that notion aside and began working at the matter again according to better method.

No theory of this subject can be regarded as final or sure. But the time has come when obstetricians should try to leave off the use of the convenient term puerperal fever, because it embodies error. There is nothing essentially puerperal known in it; nor is there anything of the nature of a fever, as that term is generally understood. A new name, already widely used, is to be found in the already comparatively old term, pyæmia. This new name can be of only temporary utility, but that utility will be very great, and continue till advancing science displaces it by a better, as it should now displace puerperal or childbed fever. It will then have served its time by carrying the ideas of generations of practitioners away from the old, flimsy, and extensively erroneous speculations of the past to the more substantial of this day. It is not to be supposed that pyæmia is a term to be analysed into its component parts and held as implying purulent blood. That was once the meaning of pyæmia, but it is not so now. The crude pathology of Piorry is already almost forgotten, and his term pyæmia is used extensively among the best pathologists as a comprehensive word, identical with or including the septicæmia and ichorrhæmia of certain others. It sounds like an adoption of humoralist views, but in it there is as much of solidism as of humoralism, and there is in it vastly more of modern science than in the term puerperal fever.

Pyæmia occurs in several forms, which are characterised each by more or less peculiar symptoms, but most distinctly by the pathological appearances discovered *post mortem*. There is that most widely known when you have septic embola, and scattered abscesses caused by them, and perhaps otherwise also. There is that where you have inflammation of the peritoneum and other serous cavities, including the synovial and endocardial. There is that where the mucous membranes are chiefly affected—the muco-enteritic. And, lastly, there is that where the only results found after death are—alteration of the blood, enlargement of the spleen, the liver, and degenerations of their most important tissues, with similar degenerations in other organs. It is this last which, often rapidly fatal, was described by Helm, and is now often called acute septicæmia. These are the cases which the superficial pathology of our young days described as having no *post mortem* appearances at all. An autopsy in those days was made by any practitioner, occupied only a few minutes, and the observations made were of corresponding value. Now an autopsy is a matter understood to demand the labour for a long time, often for hours or even days, of an expert. On these fruitless necropsies, where no appearances were discovered and none supposed to be discoverable, was founded, as you will remember, an argument supposed to be of clenching potency in favour of the essential fever character of the disease. But I confess I have never been able to discover either the logic or the power of the demonstration.

Easily getting rid of this old argument, we come sharply into contact with a new difficulty. When I say that Weber, Bergmann, Billroth, Hüter, and Verneuil support the doctrine, that Olshausen holds it an open question, and that Sanderson, in his essay on the *Infective Product of Inflammation*, demonstrates truths which seem at least to favour its pretensions, you will see that the matter has already occupied great minds. The doctrine is antithetical to the essential fever notion, for it states that pyæmia, or so-called puerperal fever, does not essentially differ from ordinary inflammatory fever, such as is called healthy, except in degree, and that the modes of induction of these feverish states are identical, or nearly so. From the slightest pyrogenous effect or merest evidence of morbility, as discovered by the thermometer, up to the most rapid of Helm's cases of acute septicæmia, we have one disease in different degrees or forms, all depending on a chemical poison of Schmiedeberg and Panum, or on the bacterium of Mayrhofer, of Lister, of Klebs, of Waldeyer, of Heiberg, and of Orth, whether this bacterium be the poison, or only its carrier. That there are weighty reasons for entertaining this view must be admitted, and among them not the least are the wonderful results of the antiseptic system of treatment, as not only preventing pyæmia, but as preventing ordinary inflammatory fever. But practitioners of my own age, or greater, will find it difficult to get rid of, or controvert, the *primâ facie* evidence in favour of the old views afforded by the great array of facts and ideas which forms the basis of our daily reasonings in the guidance of practice in healthy and unhealthy inflammations, and which furnish a set of arguments which have been well stated by a reviewer in a late number of our medical quarterly journal.

The disuse of the term puerperal fever, and the replacement of it by puerperal pyæmia, is a change which has already been carried out by many of our best obstetric authors. The old designation is so impregnated with erroneous and misleading theory, that it cannot, within a reasonable time, be purified, and will probably be most advantageously subjected to destructive cremation. Fordyce Barker, a recent American author of great intelligence, still upholds the old banner—"an essential fever peculiar to puerperal women, as much a distinct disease as typhus or typhoid". He well knows how pathologists believe they have torn this view into tatters, and he ought to have given us good evidence of its being reparable, if not actually rehabilitated, but he does not even attempt the difficult task. When we are asked for evidence as to the specific characters of typhus or typhoid, we can easily produce them, and defy the farther destructive analysis of these diseases. It would be a waste of time to go over the special history of the causes, progress, and results of these diseases. They are well known, clear, and convincing to all. For puerperal fever, we have no such characters—no such evidence. All the evidence brings the disease into the closest alliance or identity with surgical pyæmia. The grand modern history of pyæmia is, in fact, at every step of its progress, the history of the elucidation of puerperal pyæmia, or of so-called childbed or puerperal fever.

One error is sure to bring another in its train; and so we have the widely prevalent belief that this disease is like cholera, or small-pox, or typhus, in occurring sporadically, but chiefly epidemically. Here it must be observed that many authors use the word epidemic carelessly, or as synonymous with endemic; a common error, which should never be committed. But, knowing this, we find them almost universally believing in real epidemics of puerperal fever, describing them as sweeping over a country or devastating a continent. It is well known, and indeed needs no further proof, that the disease has often the appearance of being endemic in an hospital, that it attaches itself to and follows certain individuals in their practices; but I have not been able to find anything worthy of the name of evidence to prove its epidemic prevalence at any time or in any large district. You are all, no doubt, familiar with the long descriptions and marvellous statistical compilations adduced as evidence of this doctrine by our best writers, especially by medical historians, among whom Hirsch is pre-eminent. But when these statistics are subjected to scrutiny, they are all found wanting, as may be made plain by one example, and the examples are all from old times. We have few epidemics described in recent times, and these few do not produce respect for the doctrine implied in their description. Yet though there are few descriptions now, there is still everywhere the erroneous belief. Epidemics are described as having occurred in Edinburgh in 1772, 1814, 1825, 1833. But it is mere assertion. There is not a title of proof that the disease was not as prevalent in every year as in the years of the so-called epidemics. When a physician, struck with awe by a few cases, writes a description of them, down it goes in the statistical tables as an epidemic; and the year of it is not always that of the cases, but sometimes that of the publication of the pamphlet or book. When the horrid mortality rises in an hospital, from overcrowding or other causes, down it goes again as an epidemic; and with this supply of burlesque evidence the manufacture of epidemics never ceases. Registration arrangements are not required to show the epidemic character of cholera, or of small-pox, or of other fevers; and, when we do get the valued registration statistics, we get the proof in proper form. But if puerperal fever is to be shown to be ever epidemic, it must be by regular modern registration statistics. The prevalence of it is happily never very great, comparatively speaking, and, again, it is never extensively or long absent; and, when we appeal to such statistics of metria as are accessible, we do not get proof of epidemic character. We find it always present, in every county, in every community. It is easy to get proof of the epidemic characters of fevers, but not of puerperal fever. He who studies this point will find metria to vary in its ravages as pneumonia does; he will find cholera or scarlatina varying in their ravages according to a quite different law.

As the disease is erroneously believed to be a fever and to occur in epidemics, so we have a corresponding erroneous theory of its origin or causation. Many authors delight to speak of cosmic or of telluric influences or of miasma as producing the disease, and such subjects are favourites with a certain class of minds which find it most agreeable to enter at great length upon those topics of which they know very little or even nothing. For such there should be a puerperal Zadkiel. It is very difficult to find any evidence for the existence of a miasma even in the air of a pestilential hospital, for puerperal pyæmia prevails in such a manner as is scarcely reconcilable with the miasma hypothesis, and, on the whole, easily reconcilable with more or less direct communication with diseased neighbours, as Veit has ably shown. Among the circumstances of prevalence to which I allude are the comparative immunity of women brought into the hospital already delivered, the special liability of primiparæ, the special liability of those who have tedious and difficult labours.

Again, as the disease is believed to be a real or essential fever, so, of course, it is believed to be contagious and infectious, or both—whatever these terms may mean. In recent times, this mode of communication has come to be regarded as so certain and yet so subtle and mysterious that many teachers and a great body of practitioners have been terrified out of their senses by it. One cries out that the obstetrician must not wear gloves, and it would be just as rational to say he must not wear clothes. Perhaps he might be permitted to paint, and go about his practice, as the ancient Britons fought. Many say that the practitioner who has a case of puerperal fever must give up his practice and go through various processes, and not return to his avocations for a period varying from a fortnight to six weeks. Others, on this point speaking logically, go further, and say the accoucheur should give up his practice, not only if he has on hand a case of puerperal fever, but of many other contagious diseases, such as scarlet-fever, typhus, small-pox, measles, erysipelas, fœtid abscess, etc. Of the many who propound or teach such doctrines, I have never known one who practised them, and I cannot say their feelings on reflection are to be envied. If such be good doctrines, they are, of course, equally good for physicians and surgeons as for obstetricians, but the poor obstetrician is laden with restrictive burdens which his medical and surgical brethren do not recognise or touch with one of their fingers. Yet, the old proverb tells here, that what is sauce for the goose is sauce for the gander, and accordingly physicians and surgeons must follow the rules they inculcate on the accoucheur. In truth, these extreme practical doctrines of contagion are absurd, for they render all practice, whether medical, surgical, or obstetrical, an impossibility, or at least reduce the number of patients cared for at a time to one, which amounts to the same thing. In this matter much error and evil are, I believe, introduced by confusing the duties of the practitioner with those of the nurse, two quite different and almost, if not altogether, incompatible occupations. A practitioner must always, in such circumstances as we are now considering, carefully eschew undertaking the functions of a nurse, for, if he do, he must submit himself to the code of rules that regulates the conduct of nurses. If, avoiding a nurse's duties, a medical man of any kind cannot make himself medically clean in hands and person and dress, all kinds of medical practice as at present carried on are impossible with due regard to the safety of patients. Everyone who knows the safety of actual medical practice must see that such views of contagion end in absurdity. But it is not, despite all this, to be supposed that practitioners are not bound by the most solemn considerations to take most scrupulous care against being disseminators of disease; and there is no disease with which they deal, where such care is more imperative on them than puerperal pyæmia. The puerperal woman presents in her contused, lacerated, and inevitably wounded passages the most favourable nidus for the reception of morbific material; and the woman suffering from puerperal pyæmia in any of its forms, and patients suffering from some of the allied diseases, present this morbific material in its subtlest and most potent essence. A well-demonstrated communicability arises from this source. No other has been demonstrated, but it is possible that in an ill managed hospital there may be some other. For the existence of another source, several of the best recent authors offer slight evidence; but, on the other hand, its existence is rendered very doubtful by the alleged absence of pyæmia in those surgical hospitals or parts of hospitals where the antiseptic treatment of Lister is properly carried out.

Another result of this extravagant and superstitious dread of contagion is what I deliberately call the slandering of our noblest and most useful institutions—hospitals—and in that word I include all hospitals for the sick, not those for lying-in women only. Although it is against the latter that most of the foolish talk is directed, it is vain to suppose that they alone suffer. If one kind of infirmary be indefensible, so are all kinds; they must stand or fall together. The laws of pathology are not varied in nature with a view to the misfortunes specially of lying-in women. No doubt, the slandering is done with an excellent intention, under a good motive, but it is none the less what it is called, censuring injuriously and falsely, or without sufficient evidence. There have been, and there may be now, maternities which are justly calumniated as injurious, but that fact is no excuse for calumniating all. After abundant evidence has been adduced to show the directly and indirectly erroneous character of Le Fort's statement, that while the mortality of hospitals is 1 in 29, that in private practice is 1 in 212, a recent lecturer on pyæmia repeats it as if it were uncontested, and weakly appeals to authority on a point capable of scientific demonstration. We have reliable and large statistics to show what a moderately good hospital is, and we have no thoroughly reliable evidence that better results are anywhere obtained, whether within an hospital or in private practice. Among the good, I place the Rotunda of Dublin, the reports of whose recent condition you may have seen from the pen of Dr. George Johnston, its present master. So great is this superstitious dread of hospitals and reliance on imperfect statistics, that one eminent author believes he has made out that amputation of the forearm performed upon a poor man in his cottage is thirty times less fatal than if it were performed in an hospital. The paradox is not to be received because its basis is inadequate; and, considering whence come most of our hospital patients, I wish we had from this author some theory of the healing virtues of the concentrated and various filth of a highland bothy or cottage, or of a den in the Edinburgh Cowgate, or the London Ratcliffe Highway, accompanied, as it often is, by every abomination physical and moral.

As hospitals are in this facile manner made out to be bad, so, of course, large hospitals are worst, and statistics are again appealed to in support of this view. Were it not that a recent lecturer on pyæmia repeats this statement, I would not here allude to it, for it has been shown to be groundless by demonstrations as good as can well be imagined, but which seem not to have reached the eyes or mind of this eminent surgeon. Siebold believed that lying-in hospitals were so useful that shutting them up would bring far more serious evils than an occasional outbreak of puerperal fever. Whatever soundness there may be in Siebold's judgment, I prefer, with Steele, to adopt a different view of maternities, and to look forward to the time when there will be no endemics of puerperal pyæmia, but only sporadic, or what are called autogenetic, cases.

Other errors connected with the old and still prevalent opinions regarding puerperal fever, though worthy of comment, must be passed over; but one, from its importance, demands notice. It is, that this disease is a kind of cholera, or a kind of typhus, or a kind of scarlatina, or owns the same or similar causes. In this country, it is almost exclusively the identity with scarlatina that has found supporters. But at home and abroad the doctrine has, in some form or other, been extensively entertained. It is to be carefully distinguished from that reasonable view of Pouteau, Alison, Sidey, Nunneley, and Tilbury Fox, that the disease has close alliance with erysipelas, and, I might add, with the diffuse inflammation of Duncan, a view which has been partially adopted and signally illustrated by Virchow in his now celebrated paper on Diffuse Puerperal Parametritis. Scarlatina is a source of terrible danger to lying-in women, and scarlatinoid rashes are seen in some of the worst cases of septicæmia; and herein probably lies the attractiveness of the theory. But, unluckily for its supporters, and especially for the most recent, the theory has been disposed of by the researches of Hirsch and of Veit, who, by statistics of the comparative prevalence of scarlatina and of puerperal fever at different times and at the same time, have shown that there is no relation between the two. This argument against the theory is far stronger than any in favour of it, and must meantime be held as conclusive. It had been urged by these authors and by Späth before the *Lancet* did the good service of bringing Farr into the field on the same side.

Every change in doctrine or in name does not necessarily indicate progress; often, indeed, it indicates retrogress. Such unfortunate changes arise more frequently from error in philosophising than from error in observing. Among such, there is one in the history of our present subject. It has by some pathologists been proposed, not only to continue the name puerperal fever with all its adherent errors, but to go far towards introducing like errors into surgery by describing the allied diseases there as surgical fever. Had there not been the erroneous use of the word fever in childbed diseases, there would undoubtedly have been one hindrance less of the general acceptance of modern views. Progress in surgical pathology runs no risk of being now impeded by the false name, surgical fever; and its adoption will certainly not do any good. By adopting, instead of puerperal or childbed fever, the term puerperal pyæmia or some similar one, we, by the mere use of words, enforce the argument for a great medical generalisation, making the gains of surgical and obstetrical science mutually beneficial.

It must not be supposed that there is in the mere change of a name any real progress, however much such change may foster right views. Nor is this change of name to be held as even tantamount to a change of theory, from a false to a true one. The present state of our knowledge is not such as to justify a sense of great security in any theory. Yet, theories are very attractive, nay useful, and the tendency to frame them, whether prematurely or not, is in vain repressed. All the more ought we to maintain our minds in an unprejudiced attitude, ready to throw away the worse and cling to the better. Willis, who introduced the name febris puerperarum two hundred years ago, held that it was the result of sulphurous particles and fermentation. This has a faint resemblance to the new pyæmic theory, with its bacteria or micrococci, its septic and infective materials; but Willis's theory and every recent modification of it is a mere shadow compared with the pyæmic theory. The former can scarcely be said to explain or embrace any of the chief details of the subject, while the latter explains and embraces a vast number, is incompatible with none, and is the most promising road to still further explanation and generalisation. It is the last philosophic production of a vast array of modern observations and inquiries. It helps to increase the distance between us and the mere philosophisers, and to join us with the advanced guard of modern medical investigators, whose weapons are observation and experiment, not learned talk, however clever. When the physicist finds a theory of light propounded by the greatest of his kind to be inconsistent with his more advanced researches, he not only adopts a new one, but deserts the old nomenclature connected with the misleading hypothesis.

Many researches of different kinds have contributed, and are contributing, to converge scientific light on this greatest of practical, obstetrical subjects; but scarcely one of them can be regarded as being even yet completed, while some are only well begun. In drawing to a conclusion, it will be well to take a glance at these various investigations, with which we may class some more general discussions, such as that of Spiegelberg, on this topic.

Van Swieten, Willis, and many old authors on puerperal fever, regarded it as a wound-fever, and Eisenmann's well known work on the subject, published in 1837, is called "Wound-Fever and Childbed-Fever". The wound which these, and even most recent authors, have in view, is that produced by the separation of the placenta; but it is now well known, and has been often found clinically exemplified, that the disease may begin in a contusion or laceration of any part of the genital canal. Many of you have recognised the beginning of a fatal disease in a diphtheritic state of a slight recent perineal laceration, with surrounding redness and boggy swelling. I have already alluded to the recent advances of our knowledge of the anatomy of the placental wound, but already we know where to look for much more light on this subject. The anatomy of the lymphatics, to which recently Recklinghausen, Klein, Thin, and many others, have contributed, is not yet completed for the uterus. We all know the fine-looking and distinct, but very unsatisfactory drawings of uterine lymphatics by Moreau; but we do not yet really know their actual anatomy, though very much progress has been made by the anatomical investigations of Lindgren, Fridolin, and especially of Leopold. The completion of this work will be an addition to the theory of puerperal pyæmia.

Following the as yet indefinite notions of a wound-fever, came a further true advance from Boyer, Legallois, Cruveilhier, Tonellé, Dugés, and Simpson, who combined to demonstrate the identity of what would now be called the rough morbid anatomy of patients dying after surgical and after obstetrical wounds.

Then came a grand piece of progress, consisting in the discovery and descriptions of phlebitis and lymphangitis, which we owe to Dance, Duplay, Cruveilhier, Robert Lee, Hecker, and Buhl.

We now reach our own times, and have a still grander progress of our knowledge to record, in the discovery of thrombosis and embolism by Virchow, Kirkes, Cohnheim, Buhl, and many others.

After these, come researches, whose bearings on this subject are certainly very important, but which are, in many respects, as yet immature and incomplete. We allude to the investigations or to the potency of septic poisons, connected with the names of Davain, Panum, Kehrer, Thin, and many others; the great and actively progressing researches as to the production, diffusion, and influence of bacteria of various kinds, by Lister, Klebs, Waldeyer, Sanderson, Billroth, Winge, Heiberg, Orth, and many others; the new researches of Sanderson on the infective product of all acute suppurative inflammations; researches also into the distinctive characters of the noxious or septic, and the innocuous bacteria.

Besides all these, many valuable results have been elicited from the analysis of experience in hospital and in private practice. In this way the influence of age has been ascertained, and especially of immaturity and of advanced life; so also the baneful influence of primiparity and of excessive childbearing, and of twin-bearing; so also the baneful influence of severe and of complicated labour; so also the bearings of the duration of labour; so also the influence of earliness or lateness of attack after delivery; so also the baneful influence of inclemency of season; so also the dangers attending hospitals and the dangers of communications between the sick and the healthy.

But all of these researches, whether finished or still imperfect, do not, when combined, complete our modern view of this great subject. It is a subject in practical medicine, and we are practitioners. The great object of our work is to prevent or to remove the disease in our patients, and we have to inquire what fruits our knowledge produces for the comfort or healing of the sick.

Many remedies for puerperal pyæmia have been proposed, and their successful application loudly proclaimed and widely believed. Doulcet was even rewarded by the French Government for his discovery of the curability of this disease by ipecacuanha. In our own day new cures do not fail to make their appearance, and the advanced knowledge of our times would lead us to expect that they should be more rational, as the phrase is. But who is there of weight in the profession, now, who believes in any cure or in any system of specific treatment? All have been found wanting. Yet the wise physician of this formidable disease does not despair of guiding his patient through it, although he well knows its very dangerous character. Experience has shown him the utility of several means for relieving sufferings; and the favourable progress of a case may be encouraged, though not secured, by those invaluable directions which he may give as to diet and stimulants, as well as to more direct medicinal treatment of the genital passage, of the skin, of the bowels, and of the system generally.

But in this disease the physician has long been saying, not that prevention is better than cure, but that prophylaxis or prevention is to be chiefly looked after, and not cure. Great credit is due to Semmelweiss for the good he has done, especially to hospital patients, by his enlightened zeal in this cause; but the records of hospital practice sufficiently show that much more has yet to be accomplished. Prophylaxis is still farther to be carried out by attention to stop injurious communication between the sick and healthy, by disinfection, and by architectural arrangement, subjects which are all at present receiving much attention from the profession.

In the course of my remarks I have repeatedly referred to scientific researches, as to the poison producing pyæmia, and as to the effects of its concentration, and as to the connection of this poison with the presence and diffusion of bacteria. These researches have been carried on mostly by observations and experiments on the lower animals, and of their very great value there can be but one opinion. But there is a variety of circumstances which seem to indicate that the lower animals are not subject to exactly the same laws in these matters as man is, and certainly there must be great caution exercised in arguing in human pathology from the analogy of the lower animals. The most important of the researches referred to, however,—those of Lister and his followers,—have been mainly carried out in man, and consist, in a great degree, in the attainment of results in practice equally wonderful and valuable,—results that can, so far as we at present know, be attained in no other way. These results go far to justify the belief that pyæmia is a septic disease, and that puerperal pyæmia may be almost, if not altogether, prevented by the application to delivery of a practice based on antiseptic principles. We know how much has already been, and is, I am happy to say, daily done with success in this direction. But the rules of Semmelweiss, or any other washing of the hands, however carefully conducted, do not constitute treatment according to the manner of Lister. Such imperfect antiseptic precautions, by use of antiseptic gauze and otherwise, I have used with apparent advantage; but we have yet a long way to go, in order to secure complete antiseptic delivery and subsequent treatment. To reach this desirable object, the efforts of several good minds are, I know, directed, both at home and abroad; and some recent unpublished cases of successful antiseptic treatment of wounds of the penis, where periodical discharges of urine have to be permitted, supply a sketch in miniature of plans that might be applied to ordinary confinements. To say more about them I have no right; but I conclude by calling upon you to give your best aid to forward the grand cause of the increased safety of lying-in women.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MEDICINE,

At the Annual Meeting of the British Medical Association,
in Norwich, August 1874.

By PETER EADE, M.D.Lond., F.R.C.P.,
Physician to the Norfolk and Norwich Hospital; President of the Section; etc.

Gentlemen,—This is the forty-second anniversary of this great Medical Society, but only the ninth of the meeting of its special Section of Medicine. The work to be done at the annual gathering, which at first could be comprised in a combined general meeting of the whole of the members, has gradually increased to such an extent, that three and even four Sections, all meeting and working at once, are found to be almost inadequate to the due consideration of all the matter offered; and, on this occasion, it also seems doubtful whether the time allotted will be sufficient to do justice to the value of the promised contributions and the talent of their authors. But, however this may be, I hope we shall all feel that we have met here to-day for work; that, as far as in us lies, we shall endeavour to promote the first object of the Association, which is the advancement of medical science; and that, although the Society only assembles in the capital of the Eastern Counties, instead of, as last year, in the metropolis of all England, we shall feel, when this gathering shall have separated, that we have not met in vain, and that some solid results have accrued as the outcome of this week's work.

I do not, of course, desire that the other objects of the Association, viz., the promotion of good feeling and the cultivation of professional harmony, the wielding of its undoubtedly great political influence, and the lesser objects of the exercise of hospitality, and the opportunity of investigating the special natural features of the district, should be in any way neglected; but I trust that each of these will have its proper place, and that, at all events for the present, we shall give ourselves thoroughly to the work before us. It is only once a year, and in this way, that representatives of professional thought from the various portions of this kingdom—I might almost say of the world—meet together; and therefore the opportunity of mutual interchange of opinion, if lost now, cannot be regained for another twelvemonth.

I have said that the time at our disposal is inadequate for the work to be done. Even were it not that we have already this morning listened to a long and admirable address on Medicine from an acknowledged leading thinker of the profession, I should, on the former account alone, refrain from taking up very much of your time by observations of my own. As, however, it has become an honoured custom for the President of a Section to preface the commencement of the ordinary work in his department by a few introductory remarks in his own line of thought, I will claim your attention for a few brief moments; and if, in doing so, I should make my observations too local or personal, I would ask you to remember that disease is cosmopolitan, and that local experience may be of world-wide applicability.

During the preparation of this little address, it has struck me very forcibly that the time available for it is either too long or too short. It is too long for the mere enunciation of a few introductory common-places, and quite too short for the proper discussion or estimation of almost any one of the many great questions now prominently engaging professional thought. Much has been written of late (and by none better than by Dr. Parkes, in his address to this Association last year) on the great strides which medical knowledge has made in recent times. Perhaps, there is no better way of realising this than by carrying our minds back twenty or thirty years, to the time when many of us were students. If we turn to our note-books of that day, we shall not fail to see in how many most important respects the lectures of the then professors of medicine are wanting in much that is deemed essential to the simplest acquaintance with the theory and practice of our art as understood at the present day.

To mention only a few of the more purely medical subjects. Since the period alluded to—

The causes of fevers have been greatly elucidated, and their varieties more exactly differentiated.

The influence of poisoned air and poisoned water in producing disease has been fully recognised, and as strenuously combated by antiseptic and hygienic measures.

Very many local and parasitic diseases have been discovered or distinguished from each other.

Life, in its earliest and simplest manifestations, has been minutely examined, and new doctrines of inflammation and other diseased actions derived therefrom.

Degenerations, natural and induced, have been inquired into.

The great questions of diathesis and hereditary influence, as well as the effects of alcohol and other articles of diet, have been critically examined.

The thermometer has been (medically speaking) almost invented afresh, and generally applied to practice.

Anæsthetics have come into general use as the solace of suffering humanity.

Thrombosis and embolism have become familiar to us as causes of disease.

And, last, not least, nervous action and nervous influence have been carefully and unceasingly studied.

These are, indeed, great results and great changes. They have necessitated almost a relearning of our profession, and a continual reconsideration of our position as physiologists and physicians. But, great as they are, the field for inquiry, so far from being exhausted, seems to be ever widening, as our stand-point of observation is changed or enlarged. I am glad that there seems every prospect that in the future, as in the past, the members of this great Association will contribute their full share to this tide of advancing knowledge; and the experience of the brilliant meeting last year, and the promise of the present one, give us in this respect good cause for congratulation.

I have thus ventured, at the risk of being tedious and of telling a twice-told tale, to enumerate a few of the many great questions which have of late received such great attention. But, besides these, occupying, as it were, a class by themselves, and almost forcing themselves upon our notice, there remain those three great subjects which have been so fully discussed during the past year in our great metropolitan medical societies, and which, from their frequency of occurrence, their great fatality, and their consequent enormous importance, imperatively demand a solution, if such solution is to be obtained. Need I say that I allude to

The nature and varieties of tubercular disease;

The nature and mode of development of cancer;

The causation and spread of pyæmia, and suppurative fever.

Tubercle! Cancer! Pyæmia! We are now meeting almost at the close of the nineteenth century of the Christian era, and medical science has been cultivated for long periods beyond this; and yet tuberculous and cancerous diseases stand out, not certainly as unknown as to their nature and causes, yet quite as certain as to their fatality, as before men bent their modern energies to the elucidation of the scientific elements they involve.

By the improved practice of the past few years, the duration of life under tuberculous conditions would appear to have been materially lengthened; and, by the inoculations and experimental investigations of Villemin and his English followers, Sanderson, Wilson Fox, and others, some increased insight into the nature of the tuberculous process would appear to have been obtained. So, also, in regard to cancerous disease, our acquaintance with the anatomy and histology of its growth has infinitely increased. But the very length and breadth of the discussions above alluded to, show, I think, how much there is yet to learn on these subjects, and how vast an amount of fruit yet remains unplucked on this tree of knowledge. Even so, we may at least hope that we have thereby taken stock, as it were, of our knowledge, that we have ascertained the exact steps of the ladder of their unravelment to which we have climbed, and that we have been able to discard once for all, many false ideas which the previous uncertainty of our position had allowed to accumulate and remain.

Some few years ago, at the Oxford meeting of this Association, I attempted, in a short paper, to trace the etiology of phthisical disease to pulmonary paralysis (a subject which has since been ably and thoroughly examined by Dr. Richardson), but I am sorry to be obliged to say that I have now no special reason for dwelling longer upon this or either of these subjects; even though tuberculosis and struma are as common here as elsewhere; though cancerous disease unfortunately affords us a very constant and copious field for investigation; and, though the whole subject of hospital hygiene, and the aggregation of the sick, has recently forced itself upon us in this city, through the occurrence of many cases of pyæmia and erysipelas in our hospital, and by the fact that this building is likely soon to be subjected to considerable modification and rearrangement.

On looking over the list of papers promised for this year, we cannot but be struck with the preponderance of those bearing upon the direct action of the nervous system; and there is no doubt that this preponderance does not inaccurately express the prevailing tendency of medical thought at the present moment. The more exact knowledge which we now possess of the brain and its subdivisions, as well as of its vascular supply and distribution; also of the functions of the ganglionic and vaso-motor nerves; together with the ascertainment of the great principle that vascular supply is regulated by the inhibitory action of the nerves, and that removal of this governing influence and control admits of ungoverned local action, *i.e.*, disease—have been sufficient to stimulate to fresh and active inquiry in this direction.

And well it may be so, when we see that many previously obscure diseases (notably chorea and epilepsy, and many varieties of paralysis), have been already rendered more intelligible through this knowledge, and that the whole process of inflammation itself is in a fair way of being at length referred to its evidently proper position of a paresis or functional paralysis.

Amidst all the investigations of our nervous physiologists, there is one direction which has comparatively seldom been taken, and that is the more exact elucidation of reflex nervous disorders. Reflex action is a word scarcely ever out of our mouths, and reflected derangement is recognised as the commonest of functional affections, and yet but little effort has hitherto been made to systematise our knowledge of these actions, or to reduce our chaotic facts to anything like exactness. It would seem that in this direction lies a great future for the patient worker, and that the doctrine of reflex action—expounded by Prochaska, Todd, and Marshall Hall, and expanded by Brown-Séquard and others—is yet destined to great and remarkable development in its application to practical medicine. For not only is it certain that many of the disorders we have to deal with are but reflected expressions of distant disturbance of function, but it is also certain that many of these reflex actions are as distinct and constant as those of more direct disease. If this be so, it is equally certain that there must be definite channels through which the nervous current passes; in other words, there must be distinct reflex arcs through and along which the morbid actions travel, and at the extremities of which the influence so exerted is respectively started and felt. In many cases these arcs are evidently long (and it is noticeable how frequently the extremities of the body are mutually interaffected rather than intermediate parts); but it is also pretty certain that many of them are very short, and that the diseased action is propagated by the nerves, afferent and efferent, merely from one vertebral segment to another. In this view doubtless lies the most easy explanation of the relations of many of our concurrent disorders, but it also illustrates the way in which disease may be spread by contiguity; the new morbid action being in this latter case the result of lesion propagated in a nervous channel through such a short reflex arc, rather than from particle to particle of adjacent tissue. In illustration of this theory let me quote the following cases, which have quite recently occurred in my practice.

CASE I.—Mr. A. had congestion of the kidneys, with prolonged hæmaturia; and then albuminuria. After a time came obscure, silent, latent pneumonic consolidation at the base of each lung. This pulmonary consolidation would yield to no treatment directed to the lungs; but, as the kidney-condition improved, so the lung-affection gradually and *pari passu* passed away.

CASE II.—Mr. B. was suddenly attacked with bilious diarrhœa, which lasted a day or two, and left him greatly enfeebled. Then, for a few days, the liver was quite inactive, and the stools white. At this stage, there came on (without any exposure) passive congestion of the base of the *right* lung. This congestion lasted a few days, then gradually passed away, at pretty nearly the same rate as the evacuations regained their colour and normal appearance.

CASE III.—Mr. C. suffered for a week from hiccup, sickness, dislike to food, and general stomach-discomfort. At the end of this time, it was found that the base of the *left* lung was becoming congested, although no cause for this was apparent, and the symptoms of lung-disorder were almost absent. Here, also, removal of the stomach-derangement at once relieved the pulmonary disease.

It may fairly be asked whether all these three cases were not examples of disease propagated to neighbouring parts in such a short reflex nervous arc as I have spoken of; and, though in the two latter the pneumogastric nerve may be supposed to have been the nervous channel engaged, yet in the first such could not have been the case; and, on the whole, it is at least as probable that in all of them the reflex circuit was the same, and that the contiguous ganglionic and spinal nerves were the agents for conveying the morbid influences from the liver, stomach, and kidneys respectively, to the thoracic viscera.

It is, of course, well known that Frerichs and other writers on the liver have noted a co-occurrence of disease of this organ and of the base of the right lung; also that such coincidences as these have often been observed. But, as this doctrine is certainly not yet received as truth, and is as yet by no means removed from the region of hypothesis, I have thought it worth while to make this brief allusion to it.

Again: arising out of this view of reflex pathology, and connected with it, I would allude to the *segmental* character of many nervous diseases, as well as their power of *alternating* from segment to segment of the body. By the first term, I mean that, in a more or less exact sense, the human body may be divided, like that of insects, into the three great segments of the head, thorax, and abdomen, with, for convenience sake, some lesser subdivisions or subsegments, and that many nervous symptoms may well be considered with reference to their relation to these segments. It is true, the exact separation of the spinal cord (and therefore of its nerves and their ganglia) into such typical segments cannot be shown; but a broad line of demarcation, in a physiological sense, does nevertheless exist. And not only so, but there is no reason to doubt that the individual vertebræ, with their related parts, do bear a close analogy to the rings and annular segments of the bodies of the Annelida and others of the lower animals.

This method of classifying and grouping symptoms into the large sections of the body is often of the greatest value for diagnostic and nosological purposes, and in simplifying the multiform phenomena of nervous disease. And it is curious to note how naturally (when habitually regarded in this way) many vague and irregular symptoms arrange themselves in one or other of these localities, and how much their ready appreciation is facilitated by such grouping and localisation.

Again, looking at nervous disease in this "segmental" light, it is worth while to notice for a moment its power of alternation from one of these arbitrary divisions of the body to another. We talk of the metastasis of disease, and especially of such blood-disorders as gout, rheumatism, and the like. Such metastases are at least doubtful; but there is no doubt that a change of localisation of disordered nervous action does really, and not unfrequently, take place—as from the chest to the abdomen or head, or *vice versâ*. Who has not witnessed a sudden cessation of an asthmatic paroxysm, and, after a brief space of time, the development of oppressive flatulence and other troubles referable to the abdomen? Or, again, who is not familiar with the alternations of dyspeptic troubles and cardiac palpitation or dyspnœa, or of palpitation with neuralgia or other discomforts referred to the head or cephalic segment? The best and most interesting study of functional nervous disorder is of course seen in women suffering from spinal irritation or uterine disturbance, in whom these principles are often well illustrated; and perhaps the most remarkable case I ever saw was in a young woman, not previously hysterical or nervous, who, after a severe blow on the loins, with apparent pelvic shock, developed disordered muscular action of the whole body; and it was curious to watch the nervous excitation alternating along her whole spinal column, causing rapidly varying play of action as it passed up and down, and reminding one irresistibly of the effect produced by running the fingers quickly over the strings of a musical instrument, or still more of the flickering and rapidly changing appearance of a linear row of gas-lights exposed to eddying currents of air.

There are no papers promised in this Section on that subject which has such a special interest in this county—viz., that of calculous disorders; although I doubt not Mr. Cadge will have something to say tomorrow upon the question of vesical calculi. These calculi are, however, quite as interesting to the physician as the surgeon, and, indeed, ought to be more so, as our speciality is to prevent them; and, if we were able to perform our duty properly, the surgeon would have no part in their treatment, as they would all be prevented, or dissolved ere they had time to form concretions large enough to require surgical procedures. Much has undoubtedly been done of late to increase our knowledge of the chemistry and pathology and causes of urinary deposits and concretions, yet still much of certainty is wanting in this direction. Forty-six years have passed since Dr. Yelloly of this city wrote in the *Philosophical Transactions* that he was not "aware of such differences of air, water, soil, or habits of life, having been yet detected, as can justify us in attributing the prevalence of stone in the Norfolk district to any of these causes"; and, although habits of life and special qualities of drinking-water have been ascertained to have some influence on their production, yet it is clear that many other factors are at work, and that much of this sentence still holds good, and is as correct as when it was written, nearly half a century ago. We are all doubtless familiar, too, with that most valuable work on calculous disorders published by the late Mr. Crosse in 1835. I refer to it, as well as to the papers of Dr. Yelloly, in order to call attention to the comparative frequency of occurrence in this district of the oxalate of lime calculus. My own later experience shows that this so-called oxaluric condition of urine is still very common, and a very frequent attendant upon the disorders of the general poor and of the hardworking artisans of this city and neighbourhood.

The chemistry and mode of production of this oxalate of lime deposit are now pretty well understood, thanks to the investigations of Dr. Basham, Dr. Beale, Dr. Roberts, and others; but, though, in consequence of these, we must give up speaking of oxalate of lime apart from its derivative, uric acid, yet there is no doubt that a condition of urine so well described by the late Dr. Prout does exist, which is so definite, so distinct, often so continuous and so constantly associated with the same constitutional symptoms, that, if we could be allowed to speak only clinically and practically, instead of chemically or physiologically, we could verily speak of nothing but the oxalic *diathesis*. In these cases, the oxalate of lime is the only deposit found in the urine after cooling. The density of this fluid is always high, often (I have observed) exactly 1027; and there is constantly an excess of earthy salts in solution, with a preponderance of symptoms of depressed health. Alkaline remedies are rarely of benefit, but acid and other tonics, and improved hygiene, are usually beneficial.

To conclude with one word about our old city. Norwich does not yet contain much more than half the number of inhabitants which frightened Queen Elizabeth into commanding that no more houses should be built in London; and, unlike London of that day, it stands upon a large space of ground in proportion to its population. Yet, in spite of this and many other advantages, I fear it must be said that it offers its full quota of the diseases incident to aggregations of humanity. In former times, the plague ravaged it often and severely. It has had its fatal epidemics of small-pox and scarlet fever, and, of late years, typhoid and diphtheria have afforded only too abundant opportunities for studying their nature and peculiarities.

Not that our old city is comparatively unhealthy. Its average mortality per thousand is not above that of other large towns, and, indeed, not so high as that of many; but still, like most others, it loses annually the six or seven per thousand of its population who, as elsewhere, are computed to fall victims to imperfect hygienic arrangements and an insufficient command of the essentials of life.

It is probably known by report to most of those now present that the Norwich drainage is still imperfect, for the failure so far of the Norwich sewerage works, in spite of large expenditure, is notorious throughout the kingdom; but, notwithstanding this, we have happily had to record no great epidemic of typhoid or drain-poison diseases, and, though the river which flows through our midst is foul, yet no plague has in consequence attacked our houses. In one respect, Norwich is extremely fortunate in a hygienic sense. It has a copious supply of excellent water, well filtered, stored in covered reservoirs, and supplied on the constant service system. And I am happy to call your attention to the fact, that arrangements have been made to enable all who may wish it to inspect the works in connection with this true preventive of disease and warder off of many of the evils incident to a crowded population.

Gentlemen, this old city of Norwich in which we are met is a city immortalised, in a medical and philosophical sense, by having been the residence of Sir Thomas Browne. Almost within a stone's throw of this spot he lived and died, and wrote his famous essays.

He wrote in the seventeenth century, when superstition and traditional ideas still kept their hold on men's minds, and when the great light, which the science and continuous observation of the last two centuries has thrown upon all things medical, had not been shed abroad to aid and enlighten the mind of the honest inquirer. Many of the "vulgar errors" which were realities in his day to many, and which he did his best to expose, have ceased to be anything more than curiosities of the past. But I fear that very many equally important unrealities and misconceptions remain or have grown up; and I trust it may hereafter be said that, in this city, and with his philosophic spirit, by our work in this Section, we have helped to cut down some of the scientific weeds of our own age, and not only so, but that we may have added something to the great store of knowledge which it is one of the great objects of this Association to accumulate.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF SURGERY,

At the Annual Meeting of the British Medical Association, in Norwich, August 1874.

By SIR JAMES PAGET, Bart., F.R.S.,
President of the Section.

I owe to being a Norfolk man the honour of being President of this Section, and certainly I owe it to that fact that when the honour was proposed to me I accepted it, for there was no other ground whatever on which I could have held such a position as this; but when on that ground it was proposed to me, I felt I was bound by a debt of gratitude to show myself, and endeavour, if I could by any means, to promote the success of the meeting of the British Medical Association in my own county. I very soon found that the honour brought with it, as honours usually do, a great responsibility, which was that I should give some reason for my being here, and say something of Norfolk or of what I had to do with it. And, naturally, I turned back to think of what Norfolk surgery was when I left it to be a student in London; and I soon found reason for having yielded to any invitation that could come to me from my county in the feeling of profound gratitude that I had to bear to those who were my first teachers, and among whom were found my earliest and now my oldest friends. I turned to my first case-book, commenced in 1830 and finished in 1834, when, just forty years ago, I left Yarmouth, where I was apprenticed, to proceed to the larger field of study in London. I had spent there four years, being apprenticed to learn the "art and mystery of a surgeon", whereupon let me say that the lawyers do us great injustice in the spelling of the word, which always implies that we have in our art some mystery or secret thing which other men should not dare to look into; whereas it is not the mystery but the *mestiery*, the *metier*, the mere business and art of the surgeon and apothecary. In my own case-book, I found nothing that in the present day would be worth recording—no more than the cases that might well be taken by any other boy, from sixteen to twenty, at his first sight of a large practice. But I found there some things which made me still fear (falling in very much with the tone of that most admirable and wise address that we heard this morning), lest in our progress we should have let fall some of the things which we had better have held, and are now regarding some things too lightly that then seemed very grave, and, perhaps, are so still. For among the records which I found are records of methods of practice now almost completely disused, and yet in which I feel confident there was much right. I find, for example, a large and almost uniform practice of bleeding for all acute diseases, for many chronic, for most of those that were unknown or uncertain, and for a large proportion of cases in which there seemed to be nothing the matter. Trying to learn something from these things, I came to one or two conclusions which I am sure the younger members of the profession need to have much impressed on them. One of them is that at the present day we undoubtedly overvalue the blood, and estimate too cautiously the loss of it. We heard after the address to-day of the impossibility of performing vivisections upon men. It was not impossible at the time of which I speak; for then there was a practice of vivisection performed on nearly all market days on those who wished to be bled; and the early part of my life was spent in this practice. On market days patients came, and I really scarcely know for what reason, except that it was a good old custom, and the county was then Conservative. They had some discomfort, and wished to be bled, and I bled them usually till they fainted, and the charge for bleeding was one shilling.

Now, looking at that as I can with a very clear memory of its results, and with a more scientific tone of mind than I then possessed, I can regard those as a series of vivisections fairly performed for the determination of what is the influence of the removal of blood up to the point of syncope upon a comparatively healthy person. I think I can say surely that not one of these persons suffered harm. I kept my cases with much care, and I have a clearer recollection of that period of my professional life than I have of an equal period of any part of it which has since passed, and I verily believe that not one person suffered harm. There were a few who came afterwards with trivial inflammation about the wound, a few with light attacks of what might be called adhesive phlebitis: clots formed in the wound, and obstructed the vein for a time; but beyond that no damage, to the best of my belief, ever was sustained. Amongst these was a large number of pregnant women; for, in the eastern part of the county at that time, it was the general belief that pregnancy might not pass through its whole course without some mischief, unless a patient were bled; and in these cases, too, no harm whatever came. The custom seems like a comedy, but there are in it, and in the records of it, a series of facts of very great importance. They prove to my mind as clearly as anything of the kind can be proved, that the loss of blood up to fainting, and, in some cases I remember, with those epileptiform convulsions that come with the loss of blood, is absolutely harmless. I will venture to say, that there are few persons in this room who might not be bled to fainting, and to-morrow be almost unconscious of it, and, perhaps, in this week of hospitalities, might even be the better. That fact, I take it, may be held by the practice of former times as perfectly assured; and we, therefore, probably take vastly more care than we need of the saving of blood in healthy persons. I am far from suggesting that any good followed this method of proceeding. I speak of it literally, as if it had been simply a course of vivisections to determine the influence of the loss of blood to the point of fainting upon a large series of healthy persons. Among the cases recorded, I also find that all who suffered from acute symptoms, especially from acute pain, with the ordinary signs of fever, were largely bled. That was a custom scarcely without fail. As soon as the hot skin, and a rapid pulse, and a flushed countenance, were found with local pain or any other acute symptoms—as delirium, for example—at once bleeding was resorted to. I will not venture to say how much of real good was done by these cases; but this I will say, that I believe there is at present no remedy employed from which the immediate relief derived is so great or so complete as it was from bleeding. From time to time, I have the record, and many more times I have the clear memory, that after every bleeding there was a distinct expression of the very greatest relief, and commonly following that a firm belief that the bleeding had cured the disease. And this I remember—and I tell it as a guard against any suggestion that I should at once propose the same manner of treatment—that this relief of suffering followed in those who quite certainly were suffering from profound anæmia. Persons who were bloodless, pale, and faint, who yet complained of the continuance of the local symptom, were again and again bled, and again and again experienced temporary relief.

Call it again vivisection, if you will; at least the fact is worth recording, that, for nearly all the most pressing symptoms of acute disease, bleeding was at the time an almost complete remedy. It would be impossible, from those records, or from any others much better than mine of the same time, to determine now by any method of analysis what cases gained real and what gained only passing or apparent relief; but I cannot for a moment believe that there were none among those cases that were not thoroughly and fully relieved by the proceeding. For what have we to believe, if we suppose they were not? Why, that all those whose names we hold in honour as the most sagacious teachers of that time, the men whose acumen we praise, whom we speak of as the keenest observers of their time, were at this point profoundly and guiltily mistaken. Can we suppose that those who were teachers then—to mention only those who were the great leaders of practice in this city at the time—men like Crosse, and Dalrymple, and Wright, and Lubbock, and the rest, were keen in all their observations of the diagnosis of disease, could forecast what would be its course, and judge exactly of its effects, and yet, in respect of that to which they gave the best portions of their lives and minds, the treatment of it, were even stupidly in the wrong, and doing grievous damage to those to whom they were seeking to do good? I will take any hypothesis of pathology rather than believe that. That there were cases greatly benefited I have no doubt, and one of the chief inquiries we have to enter upon even now is which of the cases suffered harm, and which were really benefited by the treatment which we now neglect.

In another line was the almost constant use of mercury. For nearly all the chronic affections, for nearly all cases that were obscure, mercury was given to the point of producing some degree of salivation; and, amongst all the prescriptions that I dispensed most frequently, I suppose there was none nearly so frequent as a quarter of a grain of calomel and a quarter of a grain of opium every four hours. For that there was a traditional respect, which had been derived from a physician, I suppose, of very great sagacity, who had practised in Yarmouth some time previously—Dr. Girdleston. From all that is recorded of him, he must have been a very exact observer. He had seen much practice in Italy; and, although he was a man of remarkable presence —faith-giving in his mere appearance—I cannot but believe that he did great good among the sick; and he had handed down this prescription, which prevailed from that time many years onward, and throughout the whole of my apprenticeship, for all obscurities, for all those things for which, I will venture to say, with not at all fewer mistakes, some now give bromide of potassium, and some what is called a light tonic. I have no doubt, even from my own cases, that sometimes their practice was mischievous; but I am equally sure that it was in many cases very beneficial. The cases in which it did good I cannot now recognise; but let me observe that it probably did good in a large number of the cases of which the real nature was at that time not discerned, and in a large proportion of the chronic diseases of internal organs which we now assign to syphilis. At the time, there was no suspicion that syphilis affected any but the external parts: we know now a multitude of syphilitic affections of the liver, of the lung, of the spleen, and many more still of the nervous system, with syphilitic affections of the brain, which were at that time put down vaguely to chronic inflammation of unknown origin, or to tumours, thickenings and productions of substances that needed to be absorbed; therefore mercury was given, and therefore mercury cured a considerable proportion of cases for which it was given; and therefore, as in the present time, having this power of curing a certain percentage, we assume that it will cure all diseases that look like those that are cured by it. This leads me to suggest (and I know not where I can suggest it better than to a meeting such as this, which will soon spread itself over the land, and be actively studying everywhere) that, whereas we are at the present time rather apt to think that pathology should be the guide of therapeutics, there is a large number of cases in which therapeutics should rather be the guide of pathology. The fact that a medicine cures a given disease is as much a fact, and quite as significant a one, as is the employment of a chemical test for discerning the nature of a solution. It can be repeated from time to time, and with the same results. There is hardly anything in the chemistry of complex bodies more sure than that quinine cures ague, and, spreading from that, that it cures a large number of periodic diseases. And, as with quinine, so with mercury. If at that time the value of therapeutic tests for indicating disease had been fairly estimated, we should have come, by many years sooner than we did, to a knowledge of the syphilitic nature of a large number of internal chronic diseases. If it had been fairly said, "we have no clear knowledge of mercury as a remedy other than this, that it cures syphilis, and, therefore, that what it cures is likely to be syphilitic", we should have come at once to the knowledge of that which it took twenty years more to ascertain. We are, I believe, too much under the guidance of what may be justly called inferential therapeutics; because we know something of pathology, we may, therefore, proceed at once from pathology to the recollections of the remedies of disease. It is a fair method of study if it be not carried to excess, but it should be studied side by side with the other facts that therapeutics may just as fairly be a guide to pathological knowledge. But, after all, my knowledge of Norfolk and Norwich surgery are more with persons than they are with things, and I am bound by all recollections of gratitude to record some of them here.

One whose name was perhaps never known beyond his own town, where perhaps now it has been forgotten, was my first and good master, Mr. Charles Costerton, a man of admirable sagacity in his profession, a good anatomist, a good practitioner, and, above all, one who set a good example of continual study, and helped me in all the work I was disposed, and some of that which I was indisposed, to undertake. Then, as guiding him, those that were the chief guides of the practice of surgery in Norwich, and amongst them all the leader, Mr. Crosse, of whom it is very hard to speak in measured language, for if I were to speak of one who, better than all I knew at that time, and equal to any I have known since, had the qualities both for being and producing good surgeons, it was he. A profound student of his profession in all its branches, a seeker of knowledge wherever it might be found, in any language within his reach, a recorder of his facts to the last degree of minuteness, and one so in earnest that he spread about him a contagion of earnestness which it was indeed most hard to resist; and in a yet more personal sense the producer of great surgeons in that one of my own pupils, the Vice-President, is his son and most worthy follower. With him as a colleague was one very unlike him, but who might teach other qualities not less valuable in surgery—Mr. Dalrymple. Our President, who, as you perhaps know, has been the author of admirable memoirs of his contemporaries and predecessors in the Norwich Hospital, has recorded of him that which we should be all so anxious to imitate, the almost distressing sense of responsibility which he continually felt; the way in which he had almost to be driven to that which he knew to be right, lest, by some accident or oversight, he should do that which was wrong; the constant dwelling upon all suspicions that he had not fulfilled his whole professional duty—a tone of mind not wise perhaps to be the master process, but yet most wise to keep, lest others should take the lead. And with him there was another, the very type of that which a general practitioner should be—Mr. Johnson, who was at that time assistant-surgeon to the hospital—busy, active, and conscientious, and learning, as our admirable orator of to-day said it was most necessary to learn, the inner life of every family to which he went, the inner feelings of every patient he had under his care, till he passed, in nearly every house, from being not the mere surgeon or physician, but the wise, judicious counsellor, the other parent of the young, the intimate friend of all with whom he mingled. I remember others; for no man is in himself, I suppose, fit to be the whole and single study of any others, and our wisdom is rather to study that which is best in each, and make from all together the ideal which we would most imitate. There were men here with that happy audacity in surgery which enters sometimes as an element very necessary for the active life we have to lead. Of Dr. Lubbock, as a physician, I had no power of judging; but as a surgeon, which he was, I believe, much more than a physician, he was profoundly wise in his audacity, taking a lead where others might be wiser than himself, but often doing that which others dared not do, and doing it successfully.

There was another, too, from whom that at least might be learned, and of whom I must speak in that view with respect—William Webber of Yarmouth—a man not wise or right in some other things, but in that giving an example from which all might study. These are some of my best memories of Norwich and of Norwich surgeons, and they have been maintained in succeeding generations by my finding, amongst my oldest friends, those who have held the lead in surgery since, and, in a generation yet nearer than theirs, amongst my own pupils, those who still hold it. So that visitors of the British Medical Association when they come here, come to no common place for the discussion of surgery. Here it has been studied very gravely and very earnestly; here let it be so discussed, and not in a professional spirit only, but in a really scientific one. I owe to Norfolk, and chiefly to Norwich, much of that which led me in early life to go somewhat beyond the ordinary bounds of study into the range of science. It should never be forgotten that in Norwich was trained Sir James Edward Smith, the founder of the Linnæan Society, the leader of the botanical knowledge of his time. After him followed Sir William Hooker, best of all botanists of his time, the founder and outworker of the greatest botanical institution in the world, at Kew Gardens, whom it has been the great happiness of my life to have had in intimate friendship from my earliest years; who does Norwich the honour, let me say, of sending his own son to study surgery here. Then let me name Mr. Dawson Turner, a botanist, an artist, an antiquarian, one with whom any one might study and be helped to study all that might help him both to the tone and temper and the true knowledge of his profession. From all these it would be wrong if anyone had gone without, I will not say succeeding in his profession, but without a thorough knowledge of the manner in which he might gain success, and an honest ambition for the success that they achieved. And, if I put them all in my memory together, I should say that from them I learned that principle which I had tried, however vainly, to follow out in all my study, the principle upon which it will be well if we begin our present surgical meeting, that he that will seek the truth earnestly, with patience and humility, in the fear of God and the love of man, will surely find it.

LARVÆ OF FLY IN THE EAR.

I HAVE just met with a case in my practice which, so far as I am aware, is of rare occurrence.

J. R., a farm-bailiff, came to me on July 27th, suffering from intense pain on the right side of the head, which, he stated, had come on suddenly the previous afternoon. The external ear was red and irritated, and blood was oozing from the external meatus. Upon examining with the speculum, I found the meatus occupied by a moving mass of larvæ, which I carefully removed by forceps. There were twelve of these in all; and the largest was two-fifths of an inch in length, having all the characters of the larva of the common blue-bottle fly. After removing them all and syringing the ear, I found that, besides destroying the surface of the external meatus, they had penetrated the membrana tympani. The pain abated soon after the removal of the larvæ, but the patient still remains very deaf. He can give no account of how or where the parent fly deposited the eggs in his ear.

C. MOSS CAMPBELL, M.D., Staunton.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE OBSTETRIC SECTION,

At the Annual Meeting of the British Medical Association, in Norwich, August 1874.

BY FLEETWOOD CHURCHILL, M.D.,

President of the Section.*

GENTLEMEN,—On taking this chair, my first duty and my greatest pleasure is to express my gratitude for the honour conferred upon me by the British Medical Association; and the more so, because I am aware that the compliment includes the Dublin Obstetrical School, with which I have been so long connected. I thank you very heartily, gentlemen, for the great honour you have done me.

In casting about for a subject with which to occupy you here for a few minutes, as I have nothing worthy of my own, I have determined to ask your attention to what I may call an experiment, carried on by my friend Dr. George Johnston, for the last five years, in the Rotunda Lying-in-Hospital, of which he is the careful and able master. His annual reports you will find in the *Dublin Journal of Medical Science* for February 1870, December 1870, Dec. 1871, Dec. 1872, Dec. 1873; and I can state from personal knowledge, not only that these reports are written by him, but that every case is entered in the case-books, and all the statistical tables, drawn up by his own hand. You will find very much in these reports that, in my judgment, is of extreme value, but time would not allow me to draw your attention to more than one point, viz., the sanitary condition of the hospital.

You are doubtless familiar with the views put forth, some years ago, by our lamented friend Sir J. Simpson, and since maintained by others of no small weight and authority. It was asserted, you know, that large hospitals were of necessity unhealthy, and that this conclusion as to the state of general or surgical hospitals was, *à fortiori*, true of large lying-in-hospitals. We were told that epidemics of puerperal fever originated in these lying-in-hospitals; that they were the special *habitats* of puerperal fever, which clung to them, or to certain of their wards; that their atmosphere is a permanent miasm, or malaria, to which the special name of "hospitalism" has been given; and, lastly, that "by continuing the system of large lying-in-hospitals, we are causing the death, by zymotic metria, of a number of patients, for one that would occur in small hospitals or in isolation."

It would be quite foreign to my intention to reopen this question now; I allude to these statements merely to show the gravity of the inquiry, and the interest of the experiment. I intend to limit my observations to one point, viz., whether this malarious unhealthy condition is essential to large hospitals because they are large. I do not question that a large hospital, obstetrical or surgical, carelessly managed, with insufficient sanitary precautions, may be a "fever-nest," a "focus of disease," and give rise to or intensify zymotic diseases—fever, pyæmia, septicæmia.

It is quite true, also, that our earliest records of epidemics of puerperal fever are in connection with lying-in-hospitals; but whether this arose from there being few writers except those connected with the hospitals, or because the epidemic really originated there, may be open to question. We shall not be very far wrong in assuming that the laws of health, as applied to hospitals, were then as little observed as in private life. Nor do I intend to enter upon the comparative mortality in small hospitals, or among those confined at home, even were our statistics more extensive and accurate than they are at present. I repeat, that I shall limit my inquiry to one point, viz., whether there is necessarily such an atmospheric condition in a large hospital as that it must be a permanent source of zymotic disease to patients, either by originating epidemics of puerperal fever, or by affording congenial materials for an epidemic when the malarious influence is introduced *ab extra*.

If the former were the case, we should expect, I think, that whenever the "hospitalism" reaches a certain height, an epidemic of puerperal fever must break out among the inmates, and either be limited to the hospital, or be recognised as spreading thence to the neighbourhood.

Again, if a large hospital necessarily accumulated combustible materials, waiting to be ignited from without, there could scarcely be a zymotic epidemic outside without its spreading in the hospital so strongly predisposed for its reception.

Now, I hope to be able to show you, from the records kept and published by Dr. George Johnston, that in the Rotunda Hospital, for the last five years, no such results have been observed; that, although deaths from puerperal fever have occurred, there has been no epidemic originating within the hospital or imported from without; and that the sequence of the cases affords no support to the theory, that infection clings persistently to the hospital at large, or to certain wards in particular. But, in order to render what I have to say more intelligible, you must allow me to describe the relations of the wards to each other.

The hospital consists of a large central building and (on the left of the spectator) a smaller one, at seventy feet distance, with no direct communication. Nine wards are set apart for confinements, eight in the large building, and one in the smaller. "There are four large wards on each floor of the main building, with two smaller ones opening from them, holding two beds, and used for pay patients, or to receive any patient attacked by zymotic disease. The large wards on the upper storey are numbered 1, 2, 3, and 4 respectively; Nos. 1 and 2 being opposite to each other at the west end, while Nos. 3 and 4 occupy a similar position at the east end, and each opens on a wide corridor, running east and west 133 feet, with large windows at either end, the sashes of which are constantly more or less open. The Ward No. 1, at the west end, and on the south side of the corridor, is separated from that on the east (No. 4) by a space of at least 35 feet, occupied by the chapel; those on the northern side are separated from each other by a store-room fully twenty feet in width, having a large window, which, with the door, is always open, and the entrance doors to each of the wards, on each side of the corridor, are about sixty feet from each other. The Wards Nos. 5, 6, 7, and 8, on the lower corridor, are immediately underneath those we have been describing, and are similarly circumstanced, with the exception of the wards on the northern side, which are separated by a wide staircase, with a large Venetian window, which is seldom closed. On the south side, as an upper storey, the chapel occupies the intervening space.

"The two wards in the auxiliary building consist of two rooms each, one with a southern, the other with a northern aspect, and are connected with a door, which is always open. The wards on the first floor are numbered 12; those on the second floor No. 11." These last, since 1869, have been appropriated to cases of uterine disease, and therefore are outside our present consideration.

"Each of the large wards contains seven beds, one of which is occupied by the nurse or a midwife-pupil; but we have seldom more than four of the others occupied by labour-patients, unless when many are coming in, and then four may be taken into the ward, so that, as each room has a cubic space of thirty-four by twenty-four feet in height, each patient has on an average 2000 cubic feet of air; and when I mention that thorough ventilation is kept up, and extreme cleanliness observed, not only as regards the ward itself, but also in strict attention to the person of the patient, the atmosphere is quite free from any impure air, and, in fact, I may say that such a thing as a 'loaded state of the atmosphere' does not exist."

I have quoted this description of the hospital from Dr. Johnston's First Report; and having been all over the hospital many times in each year, though having no official connection with it, I can bear personal testimony to the truth of the latter paragraphs. Nothing could be cleaner than both the patients and the wards, and I should consider it a decided improvement if the chambers of many of our private patients were as free from sick odours.

So much for the hospital itself. As you see, it is large enough to be open to the objections which have been made against such institutions. We shall now examine whether the experience of the last five years confirms these objections or not. I do not for a moment suppose that five years' experience is sufficient to decide the question for ever, but at least it is a large contribution towards forming a sound judgment, and it must stand for what it is worth. At the risk of being tedious, I must repeat, that the question I wish to bring before you is, not the comparative advantages or disadvantages of large and small hospitals, but whether the former, *i.e.*, the large hospitals, are necessarily, and because they are large, "*foci* of zymotic disease," "*habitats* of puerperal fever," "fever-nests," etc., as they have been called.

What, therefore, we want to ascertain from these five annual reports, is the amount of evidence they afford of an hospital malaria, or miasm, or whatever we may choose to call it, having originated an epidemic of puerperal fever, or of having intensified the severity of one introduced *ab extra;* and secondly, whether, in case of the introduction of any other zymotic disease, it has been so intensified as to give it the character of an epidemic. It may facilitate matters if I mention that, during the last five years, there has been no epidemic of puerperal fever outside the hospital, but that there have been very severe epidemics of small-pox, scarlatina, and typhoid fever.

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* In the absence of Dr. Churchill, the address was read by Dr. Steele, Vice-President of the Section.

1. I may as well say at once that the hospital miasm has not originated an epidemic of puerperal fever, inasmuch as no such disease has prevailed epidemically there within the period specified. No doubt there have been cases of puerperal fever in the hospital; but if we find no morbid sequence in the cases, and that no second case occurred in the same ward, or in the next bed, within a reasonable interval, should we be justified, do you think, in regarding malaria as a very influential agent? Certainly, if one case were immediately followed by several others in the same ward, or in the next, we might fairly come to this conclusion, but scarcely, unless under these conditions.

In the first Report (1869), in 1159 deliveries, there were 12 deaths from what may be called zymotic disease. Now, let us look at the sequence of their occurrence, and the wards in which they occurred.

No. 1.	Nov. 5th, 1869,	in Ward 7	Lower floor.
,, 2.	Nov. 19th,	,, 11	Auxiliary building.
,, 3.	Dec. 14th,	,, 7	Lower floor.
,, 4.	Jan. 1st, 1870,	,, 12	Auxiliary building.
,, 5.	Feb. 24th,	,, 1	Upper floor.
,, 6.	April 24th	,, 5	Lower floor.
,, 7.	July 28th	,, 3	Upper floor.
,, 8.	Sept. 11th,	,, 3	,,
,, 9.	Oct. 12th,	,, 7	Lower floor.
,, 10.	Oct. 13th,	,, 12	Auxiliary building.
,, 11.	Nov. 1st,	,, 2	Upper floor.
,, 12.	Nov. 4th,	,, 7	,,

Now, you will remark that only two deaths occurred in the same wards twice—viz., in wards 3 and 12. But between those in Ward 3, forty-five days intervened and many deliveries; between those in Ward 12, ten months and many deliveries. If the atmosphere of the wards had been unhealthy, how could the intermediate deliveries have escaped?

In the second Report (1870) there are recorded 1,087, and six deaths from puerperal fever.

No. 1.	Oct. 28th, 1869,	in Ward 3	Upper floor.
,, 2.	Jan. 2nd, 1870,	,, 12	Auxiliary building.
,, 3.	Mar. 3rd, 1870,	,, 4	Upper floor.
,, 4.	May 8th, 1870,	,, 12	Auxiliary building.
,, 5.	Sept. 5th, 1870,	,, 5	Lower floor.
,, 6.	Oct. 3rd, 1870,	,, 8	,,

Thus there were four months between the only deaths which occurred in the same ward.

In the third Report (1871), we find more deaths from zymotic disease than in any of the former ones: they amount to 21 in 1,161 deliveries.

No. 1.	Nov. 9th, 1870,	in Ward 1	Upper floor (admitted with typhoid).
,, 2.	Nov. 10th,	,, 6	Lower floor.
,, 3.	Nov. 16th,	,, 2	Upper floor.
,, 4.	Nov. 30th,	,, 4	,,
,, 5.	Dec. 16th,	,, 3	,,
,, 6.	Dec. 19th,	,, 4	,,
,, 7.	Dec. 21st,	,, 5	Lower floor.
,, 8.	Jan. 19th, 1871,	,, 8	,,
,, 9.		,, 12	Auxiliary.
,, 10.	March 6th,	,, 2	Upper floor.
,, 11.	March 25th,	,, 3	,,
,, 12.		,, 5	Lower floor.
,, 13.	April,	,, 7	,,
,, 14.	May 14th,	,, 1	Upper floor.
,, 15.	June 26th,	,, 2	,,
,, 16.	June 11th,	,, 3	,,
,, 17.	July 5th,	,, 2	,,
,, 18.	July 12th,	,, 4	,,
,, 19.		,, 6	Lower floor.
,, 20.	August,	,, 7	,,
,, 21.	October,	,, 8	,,

Now let us take the ward-history, abridged from Dr. Johnston.

"One hundred and twenty-two deliveries took place in No. 1 Ward in the year, out of which there were two deaths. The first was from a zymotic cause, having been admitted with low typhoid fever and diarrhœa November 17th, 1870; the second, also zymotic, occurred on May 14th, 1871, after an interval of six months, during which thirteen sets of patients were delivered.

"In No. 2 Ward, 124 deliveries took place in the year, and four deaths, all of a zymotic character. The first in November, was admitted with acute pneumonia; peritonitis supervened. The next, a case of scarlatina, did not occur till March 6th, after an interval of nearly four months, during which time there were eight sets of patients delivered, and the same bed occupied on eight occasions. The third, an irrupta, took place June 26th, the interval being three-and-a-half months, during which there were nine sets of patients delivered in the ward, and the same bed occupied on seven occasions. The fourth death occurred on July 5th, an irrupta, of peritonitis with extreme despondency, which seems to have been a prominent cause of her illness. No death occurred afterward.

"In No. 3 Ward, 121 deliveries took place, out of which there were three deaths from zymotic disease. The first, on December 16th, was a case of phlebitis on admission; the second, March 25th, a case of pyæmia, after an interval of three months and nine days, during which nine sets of patients were delivered. The third, a case of phlebitis, took place June 11th, after an interval of nearly three months.

"In No. 4 Ward, there were 129 deliveries, and three deaths from zymotic disease: the first, November 30th, a case of peritonitis; the second, December 19th, a case (irrupta) of peritonitis; the third, a case of hæmoptysis with peritonitis on admission, on July 12th, after an interval of upwards of six months, during which seventeen sets of patients were delivered.

"In No. 5 Ward, there were 122 deliveries, and two deaths from zymotic disease—the first in December, and the second in March. In the interval, five sets of patients were delivered.

"In No. 6 Ward, there were 124 deliveries, and two deaths from zymotic disease: the first, in November 1870, a case of peritonitis; and the second, a case of peritonitis, in July, after eight months, during which time nineteen sets of patients were delivered in that ward.

"In No. 7 Ward, there were 139 deliveries with two deaths from zymotic disease: the first, in April, of peritonitis; and the second, in August, of pyæmia, with an interval of four months, during which nine sets of patients were confined in the ward.

"In No. 8 Ward, there were 140 deliveries, and two deaths from zymotic disease: the first in January, and the second in October, between which twenty-one sets of patients were delivered in the ward.

"In No. 12 Ward, there were 140 deliveries, with one death from zymotic disease."

In the fourth Report (for 1872), out of 1,193 cases, there were only six deaths from zymotic disease.

No. 1.	Nov. 8th, 1871,	in Ward 5	Lower floor.
,, 2.	April 24th, 1872.	,, 5	,,
,, 3.	May 11th,	,, 6	,,
,, 4.	July 6th,	,, 2	Upper floor.
,, 5.	August 23rd,	,, 2	,,
,, 6.	August 21st,	,, 1	,,

The ward-history is as follows.

In No. 1 Ward, 126 deliveries took place, with one death from zymotic disease.

In No. 2 Ward, 129 patients were delivered, with two deaths from zymotic disease, one on July 5th, and the other August 26th, four sets of patients having been delivered between the two deaths.

In No. 3 Ward, there were 146 deliveries, and one death from zymotic disease.

In No. 4 Ward, there were 128 deliveries, and no death from zymotic disease.

In No. 5 Ward, 134 patients were delivered, with two deaths from zymotic disease—one November 8th, 1871, from pyæmia; and one April 1st, 1873. During the interval between the two cases, sixty-six patients were delivered in the same ward, and all went out well.

In No. 6 Ward, there were 136 deliveres, and no death from zymotic disease.

In No. 7 Ward, 138 patients were delivered, and none died of zymotic disease.

In No. 8 Ward, 123 women were delivered, and none died.

In No. 12 Ward, 133 were delivered, and none died of zymotic disease.

In the fifth Report (for 1873), we have 1,191 cases, with fifteen deaths from zymotic disease.

No. 1.	Nov. 15th, 1872,	in Ward 8	Lower floor.
,, 2.	Dec. 9th,	,, 6	,,
,, 3.	Jan. 31st, 1873,	,, 7	,,
,, 4.	Feb. 18th,	,, 7	,,
,, 5.	Feb. 21st,	,, 3	Upper floor.
,, 6.	Feb. 23rd,	,, 7	Lower floor.
,, 7.	March 16th,	,, 2	Upper floor.
,, 8.	March 21st,	,, 7	Lower floor.
,, 9.	March 23rd,	,, 7	,,
,, 10.	April 25th,	,, 3	Upper floor.
,, 11.	May 4th,	,, 2	,,
,, 12.	May 20th,	,, 12	Auxiliary building.
,, 13.	May 28th,	,, 12	,,
,, 14.	July 1st,	,, 12	,,
,, 15.	Oct. 7th,	,, 8	Lower floor.

The ward-history is as follows.

In Ward No. 1, there were 133 deliveries, and no death from zymotic disease.

In Ward No. 2, there were 134 deliveries, and two deaths from zymotic disease, one in March, and one in April.

In Ward No. 3, there were 142 deliveries, and two deaths from zymotic disease, one in February, and one in March, with three sets of cases between.

In Ward No. 4, there were 141 deliveries, and no death from zymotic disease.

In Ward No. 5, there were 138 deliveries, and no death from zymotic disease.

In Ward No. 6, there were 129 deliveries, and one death from zymotic disease.

In Ward No. 7, there were 147 deliveries, and four deaths from zymotic disease: one in January, two in February (one of them was in the small off-ward, with one batch between the two), and one in March.

In Ward No. 8, there were 139 deliveries, and two deaths from zymotic disease, one in November 1872, and one in October 1873.

In Ward No. 12, there were 88 cases, and four deaths from zymotic disease, three in May, and one in July. At first sight, and I may say for the first time in these five reports, the deaths in Ward 12 seem to afford some ground for the suspicion of "hospitalism"; but further inquiry will, I think, disperse it. One of the patients had been deserted by her husband. Another had been seduced; and, though she was doing well, the reproaches of her mother, who had been admitted to see her, were instantly followed by rigors and pain. Two others were actually ill on admission. I do not think that we can fairly charge the hospital with having caused these deaths.

I must now, gentlemen, leave it to you to decide whether, taking the succession of deaths as to time or according to the wards, you think that they afford evidence of such an amount of malaria as would justify you in regarding the disease as having been originated or propagated by it, or whether you will not rather be impressed by the absence of any evidence of the transmission of zymotic disease, either directly from one patient to another, or indirectly by atmospheric influence. I have not found a single instance where the disease attacked a patient in the next bed to the patient who died.

But, before proceeding to the next step in this inquiry, I think I ought to say one word upon one cause, perhaps of the diseases, certainly of the mortality of these zymotic attacks. I allude to the mental condition of many of those who died. Besides the distress from poverty before entering the hospital, the bad treatment of husbands, desertion of husbands, I find that, of the twelve cases who died in 1869, three had been seduced; six out of the twenty-one cases in 1871; two out of the six deaths in 1872; and five out of the fifteen deaths in 1873.

To return to the next step in our inquiry: Dr. Johnston has constructed several elaborate tables, to show that, so far from the hospital being a focus from which zymotic disease radiates throughout the community, there were more deaths from this cause outside the hospital in the very districts which supply the hospital, and that, during the months when the hospital was quite free, they were sufficiently numerous to prove, first, that they could not be derived from the hospital; and secondly that, if patients from an infected district were sent to hospital, the disease was not conveyed with them, or found no food there.

Dismissing these collateral inquiries, let us inquire into the internal condition of the hospital itself. We have already seen that, although deaths from zymotic disease did occur, there was no epidemic of such during the five years. If a zymotic disease, prevailing and known to prevail, were accidentally introduced into the wards of the hospital, it might spread either by infection or contagion, without proving the existence of malaria or hospitalism, more than the occurrence of successive cases of scarlatina in private houses proves the existence of malaria there.

But suppose that it did not thus spread, suppose that in no instance did a second case occur in the same ward, or in the next, or in any part of the hospital until it was again introduced *ab extra*; surely the conclusion would be irresistible that the atmosphere of such hospital was not in a state to propagate or favour the spread of such diseases, and therefore that a large hospital is not necessarily a hotbed of zymotic disease.

Now, during the last five years, we have had very severe epidemics in Dublin of small-pox, scarlatina, and typhoid fever, and it has repeatedly happened that women in labour have been inadvertently received into hospital labouring under one or other of these diseases.

I find that in 1869 there were so received two cases of typhoid fever; in 1871, a case of typhus fever, a case of typhoid, five cases of scarlatina, and one case of small-pox; in 1872, ten cases of small-pox and three of scarlatina; in 1873, one case of measles.

This, I take it, was a very crucial test of the salubrity, or the contrary, of the hospital. If the hospital were "malarious," if its wards were "fever-nests," one would suspect that the epidemic, once introduced, would inevitably spread through the ward, or wards, and even the entire hospital, with even more facility and virulence than it does in private houses. What, then, was the result of the introduction of these epidemic diseases into the hospital? I will give it to you, in the words of Dr. G. Johnston himself. He says: "And here I may take the opportunity of stating that, notwithstanding the fearful epidemics which prevailed during the past year, and although several patients were admitted from infected houses, and many with the disease absolutely upon them, it never extended beyond the one individual. In a word, the hospital was perfectly free from any contagion."

Such, gentlemen, are the results which Dr. G. Johnston's reports have enabled me to lay before you. They present three distinct series of facts, directly bearing on the great question before us, and of such a nature, that it is hard to conceive a higher or stronger description of evidence for the solution of our problem. No doubt the *data* might be larger, or the experiment spread over a greater length of time; but still the facts, so far as they go, surely vindicate the hospital from the charge of being the seat of endemic disease, or the source of an epidemic or a congenial atmosphere, where zymotics of any kind will spread and fructify.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PUBLIC MEDICINE.

At the Annual Meeting of the British Medical Association, in Norwich, August 1874.

By W. H. MICHAEL, Esq.,
Barrister-at-Law; President of the Section.

THE general practice of medicine is only so far public, as it has been recognised by law and partially regulated by enactment. Although the Legislature has not surrounded it by safeguards, like some other professions, yet no one can, unless conforming to certain prescribed standards, use any title importing a qualification to exercise the functions of a member of the medical profession. Yet, in this direction, much remains to be desired and accomplished; and there has been for many years a growing conviction that the best safeguard which could be afforded to the community for a proper exercise of the healing art, would be to substitute for the examinations of the many qualifying bodies now granting licenses, one examination, in which these bodies might all be fairly represented; and that this should be the portal through which every intending practitioner should enter upon the duties and responsibilities of the medical profession. This would in no way detract from, but rather increase, the desire to add to a mere qualifying examination those diplomas or degrees granted by universities or learned bodies, bespeaking special culture and the possession of scientific knowledge as additional guarantees and helps to future successful practice.

Public medicine, which may be taken to include any medical service paid for out of funds raised by taxation or rates, must of necessity have to deal with other phases of medical practice than those within the sphere of the private medical practitioner so-called. As regards the curative branch of the art, it is to be exercised on masses of people more or less closely aggregated together, as in the army and navy medical services; and, whether in these or in civil life, the science of preventing disease and death is an integral, and, in many cases, the most anxious and important part of devolved duty. It is true that it requires no higher art and no different exercise of it to treat diseases, which must in every case be individual, whether they occur in a hospital, in a ship, in the family, or in the camp. But the other function of public medicine—that of prevention—is essentially different; requiring other knowledge, and calling into play other faculties than those employed in the cure of disease. Upon the true and right possession and use of these has often in the past, and must often again in the future, depend a nation's welfare and a nation's weal; for both armies and communities have often to acknowledge that public health is public wealth and public safety. Securities should, therefore, be taken by the State, when medicine is employed for state purposes, that the instrument used is competent; and this must be judged by the competency of the hand using it. A state examination, as the necessary preliminary to holding any public medical appointment, and a board constituted for the express purpose of, so far as examination by a board can do so, providing for efficiency, should confer a qualification in State Medicine so-called, available for an appointment in the public medical service. To be an efficient officer of health, a Poor-law union surgeon, or a surgeon in either army or navy medical service, requires the same qualifications, and the possession of the same qualities, for the right discharge of much the same series of duties.

There are diversities of taste which would naturally induce choice of one or other of these branches of service in preference to others. To a large extent, success in any would have been equal in others, as indicating the presence of those qualities of observation, self-reliance, and careful reasoning, which make up the sum of competency and capacity. Age will bring with time its lessons of self-experience to aid the knowledge gained from others; but, in such a scheme as is here contemplated, the entry into manhood without any necessary previous following of prescribed curricula, if satisfactory acquaintance with hygiene and allied sciences be evinced upon due examination, should be the sufficient passport for admission into public medical service.

At present, while there is a special examination for the army and navy medical services, there is no test for fitness to fill the post of medical officer of health, rendered obligatory as to appointment on every sanitary authority under the Public Health Act (1872). It is probable that, were any strict test made essential before taking this office at the present time, considerable difficulty would arise; first, because of the comparative novelty of the service; and, secondly, because the pittance in many cases attached to the performance of the duties is so small, as to be likely to deter many candidates from submitting to a severe examination as to fitness for the office.

But if, in the future, the duties attached to the office of medical officer of health are to be in every case realities, there must be such guarantees for their discharge as would alone be afforded by an adequate test of competency. To require that every member of the profession, entering it after a certain date, and desiring an office of Public Medicine, should possess a certificate from a State Medicine Examining Board, would inflict no hardship, and would be the first step towards the creation of a skilled staff of medical officers of health to meet the exigencies of efficient health-preservation. It is possible that there may be, among the great mass of the medical profession, a sufficient number of its members who have already devoted such attention to questions of public health as to fit them for the calls made upon their skill by the present *régime*, but it is hardly to be expected, without very considerable preparation, that a profound insight into the most mysterious of Nature's locked-up secrets can have been vouchsafed to every aspirant for employment.

At present, there is no widespread or deep belief in the public mind as to the possibility of any such skilled analysis as shall not only trace disease to its remote causes, but place in the hands of experts the means of warding off its visitations; at least, there is not such a belief as makes ratepayers willing that their representatives should expend money raised from them by taxation upon what are called sanitary improvements, and bitter hostility is constantly expressed and shown to action in this direction. It is about as difficult to make people healthy by Act of Parliament as it is by the same means to hope to secure to them education, religion, or morality. I have reluctantly come to the conclusion that compulsory legislation must not be too hastily or peremptorily forced on an unwilling community. It is only by co-operation of all the members of the State success can be secured; and this must be through gradual and progressive teaching, both by precept and example, spread over the present and the immediate future. It must be shown by unmistakable examples over and over again repeated that drainage of the subsoil of houses materially lessens, if it do not altogether destroy, tuberculoid disease, before owners of small property will be compelled by public opinion to replace the sodden floors and foundations of inhabited cottages which now place a premium on the prevalence of this most formidable class of disease. Long extended experience of immunity from many forms of chest-disease, where the air is no longer loaded with the products of combustion, may force even manufacturers no longer to poison the atmosphere; and the claims of humanity may even supersede the necessities of commerce, and allow health-giving streams of pure water to take the place of pollution and poison which now flow down our river-beds. It will take long years of patient insistence to make it universally admitted that the presence of pure air in dwellings is as essential as food and clothing, and that sound health can only be maintained by a copious supply of pure water. The removal of human excreta from man's dwelling-places will over and over again, in the future as in the past, save thousands and tens of thousands of lives, that would have been otherwise self-destroyed; and the diminished death-rates, the prolonged life-space, in districts where sanitary measures have been efficiently carried out, must preach in small still voice, persistently, and long before the voice is heard and universally acknowledged; but progress is certain, though slow, and must be patiently waited for.

Above all, all those who desire the progress of public medicine as a science must avoid either extenuation of our failures or excess of our commendations. We have much to regret in these matters in the past, and may learn lessons from our mistakes for our future guidance. To insist on the comparison of death-rates alone as testing the health of one district against another, where the circumstances might vastly differ, would be obviously one of the errors to be deprecated; but to show that works of drainage and water-supply have uniformly diminished the death-rate of a given district, thus testing it by itself in its present and its past, is a comparison of a value and moment which cannot be impeached.

There is, however, a misconception on the part of some of the friends of sanitary effort, tending in a direction more dangerous to progress than absolute opposition. It is asserted as probable that by preventive medicine we may indeed save life, but that we save only the lowest, least valuable, and most imbecile form of it, and that this tends to the degeneration while we add to the number of the population. Nothing could be more fallacious, or, if unanswered, more completely, while insidiously, check and paralyse sanitary action. It is attributed to the late illustrious Professor Liebig that he enunciated the axiom, that "Disease begins when resistance ends": if so, this sentence contains the germ of the error into which writers like Kingsley and Herbert Spencer have fallen when writing on the subject of public health. Disease is of the very essence of vitality, and often the true exponent of the measure of vital resistance; for when resistance ends, it is death, not disease, which supervenes. Kingsley, in *Health and Education* (1874), p. 7, says: "Everything which makes it more easy to live, every sanitary reform, prevention of pestilence, medical discovery, amelioration of climate, drainage of soil, improvement in dwelling-houses, workhouses, gaols; every reformatory school, every hospital, every cure of drunkenness, every influence, in short, which has—so I am told—increased the average length of life in these islands by nearly one-third, since the first establishment of life-insurances, one hundred and fifty years ago; every influence of this kind, I say, saves persons alive who would otherwise have died; and the great majority of these will be, even in surgical and zymotic cases, those of least resisting power, who are thus preserved to produce in time a still less powerful progeny." And at page 8 he says: "But it is palpable that in so doing we must, year by year, preserve a large percentage of weakly persons, who, marrying freely in their own class, *must produce weaker children, and they weaker children still.*" So also the same idea is worked out in Herbert Spencer's *Study of Sociology* (2nd edit., pp. 339-343). From the statements therein contained, the author draws the two following corollaries: first, that from the sanitary measures which he has enunciated, population increases at a greater rate than it would otherwise have done, so subjecting all persons to certain other destroying agencies in more intense forms; secondly, that by intermarriage of the feebler who now survive, with the stronger who would otherwise have alone survived, *the general constitution is brought down* to the level of strength required to meet these more favourable conditions. That is to say, there by and bye arises a state of things under which a general decrease in the power of withstanding this mitigated destroying cause, and a general increase in the activity of other destroying causes, consequent on greater numbers, bring mortality and fertility into the same relation as before; there is a somewhat larger number of a somewhat weaker race. And he goes on to say: "It is supposed in the legislature, and by the public at large, that if by measures taken *a certain number of deaths by disease have been prevented*, so much pure benefit has been secured. But it is not so. In any case there is a set-off from the benefits; and if such measures are greatly multiplied, the deductions may eat up the benefit entirely, and leave an injury in its place." The author sees the difficulty into which the foregoing argument, logically carried out, would lead him, and adds, "Where such measures" (sanitary legislation) "ought to stop, is a question that may be left open." One would have thought that, if the premises of the writer were correct, there was but one corollary to be drawn from them, and that all sanitary legislation and sanitary efforts were pure mistakes. But the error underlying these statements, and similar ones continually spoken and written, arise from the assumption that it is only by diminishing mortality that public preventive medicine shows its influence; whereas, in truth, this is but the smallest part of its action. There are at work from the first moment of birth agencies tending to weaken and eventually to destroy life. These are directed equally against the weak and the strong: the former succumb; the latter survive, but weakened and impoverished. Remove or diminish these pernicious influences, and you not only save life where otherwise it would have perished, but you strengthen the strong by removing what diminishes their strength. A rough numerical illustration will show that sanitary measures, instead of tending to weaken the race, by saving weaklier scions to propagate their weakness, give to the world a stock of strong men such as it has never before known. Let us take one hundred human beings divided into tens, with vital energy represented by numbers varying in decades; thus 10 at a strength of resistance represented by 100, 10 at 90, and so on to the end of the scale. Let us suppose malarious or morbific influences presented by the number 20; we shall then have the vital power diminished thus:

Total vital energy...	100	90	80	70	60	50	40	30	20	10
Reduced (—20)......	80	70	60	50	40	30	20	10	0	—

Could we by sanitary measures diminish the elements noxious to vitality from 20 to 10, we should have gained 10 lives, and these not the lowest in the scale, but represented by a higher power of life than any before recorded in our table; for our 100 would at first be but diminished by 10, and our record of power of life would be—

Total vital energy...	100	90	80	70	60	50	40	30	20	10
Reduced (—10)......	90	80	70	60	50	40	30	20	10	0

The ten lives gained are those represented by the power 90 of strength; and, according to the reasoning upon which we are commenting, sanitary measures would tend to perpetuate a race endowed with greater power and vitality than that of any preceding age. Besides this, even testing the question of mortality alone, and for the moment overlooking the depreciation in vital energy caused by living in conditions unfavourable to health, it must be borne in mind that it is not the weak, the decrepit, and the infirm, who are always the victims to zymotic or preventable diseases, seeing that there are whole classes of these diseases which specially select for their victims those who are in the prime of life, the strong, the active, and the robust. To save these at least, if the writer's theory were correct, would be worthy of the best efforts of public medicine.

It is affirmed that these results can only be obtained by the active co-operation of the whole medical profession. To prevent the spread of disease, requires the earliest intimation of its presence. Quarterly returns of the diseases of a district, even when obtainable, seem but a mockery. For any useful information they can afford, they are much the same as tendering the key of the stable long after the horse has been not only stolen, but slaughtered. There are no available means provided by the legislature by which the newly appointed medical officer of health can know anything of the prevalence of disease in his district in time to investigate its causes and apply appropriate means to check its extension and to mitigate its severity. In default of these, are we at liberty to assume that he may confidently calculate on the help of his medical brethren in private practice? Universal consent has allowed to the medical profession a high place in the annals of philanthropy and benevolence. They may fairly assert that the members of no other profession surpass them in self-denying and laborious efforts. Can it be expected of them that, unpaid, their services unrecognised, and their aims often misrepresented, they will use all their energy and power to prevent the occurrence of those diseases the cure of which now procures for them their means of livelihood? It is a supreme test. But, at any cost, judging the future from the past, in which the medical profession has not been found wanting, the issue is not doubtful, or the answer an uncertain one. Those who are ready at all times to jeopardise their lives for the good of others will be found ready to further sacrifices, if need be, in order that the State shall not suffer, and that humanity may be the gainer.

THE LATE SURGEON-MAJOR WYATT.—The will, dated June 26th, 1873, of John Wyatt, C.B., regimental surgeon-major of the Coldstream Guards, who died on April 2nd last, at Bournemouth, was proved on July 17th, by Sir Henry William Peek, Bart., and John Kendall, the executors, the personal estate being sworn under £10,000. The testator desires to be buried in the full-dress uniform of his regiment, in which he had passed the best part of an eventful life, and that the Bible given to him by his wife may be buried with him; that the horses used at the funeral may not be decorated in any manner; that the hired attendants may not wear any hatbands or scarves; that each person attending his funeral may wear only a black band of medium width—crape for relations, and cloth for friends—round his hat, black gloves, and a white rose or camelia, or other white flower in the buttonhole of his coat, as he wishes the ceremony to be as free as possible from all gloomy associations, and to be considered more as an occasion for rejoicing than mourning, in accordance with Holy Scripture, especially as he desires that no description of widow's cap or any crape on her dresses may be worn by his wife, or any particle of crape on the clothes of any of his relations.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 37, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 15TH, 1874.

THE ANNUAL MEETING OF 1874.

THE ancient city of Norwich has received back the Association after a long interval of absence, and has proved fully equal to the more onerous task which the ripening course of years has imposed. The small body of little more than a thousand members has developed into a wide-spreading and far-reaching host five times as numerous. The business of the Association requires larger buildings, and more extensive arrangements for transacting it; the visitors are more numerous; the subdivision of Sections and the increase of Committees multiply personal and official necessities. While, therefore, the visits of the Association have become events of greater public interest and professional importance than heretofore, they impose a corresponding increase in the local burden which they involve. The proportions of the meeting of last year in London were so considerable, and the labour imposed was so obviously onerous, that many considerable cities might well have hesitated to proffer an immediately following invitation. The hearty and fraternal bidding to Norwich for this year was, therefore, the more appreciated.

Norwich has most amply fulfilled the pledge which its invitation implied. The ancient and picturesque city of gardens and of churches has opened its antiquities, its churches, its rural and civic attractions, to all comers; and the holiday aspects of the meeting have from the first been most attractive.

The generous welcome accorded by the leading residents, the liberal, intelligent, and cordial activity of the profession, and the courtesy of the Corporation, have supplied all the elements of a graceful and open hospitality; and the co-operation of many scientific notabilities has secured a solid basis of scientific work. The heavens, too, have been propitious; and thus we may venture to say that, if the many hundred medical visitors to Norwich were individually polled, they would unanimously declare the meeting to be one of the most agreeable and fruitful scientific holidays of their lives, and worthy to be registered among the most successful congresses of the British Medical Association.

The Report of the Council presented this year has many gratifying features. The Association still holds the path of progress: its numbers multiply; it spreads annually through wider districts; it tends more and more, in each district, to draw within its circle the resident members, and to perfect its local organisation, so as to be able to elucidate the whole scientific outcome of the professional experience of the district, and to express the whole mind of the locality on professional, social, and ethical subjects. The finances of the Association, under the improved system of management inaugurated by the Committee of Council, and carried out by the Finance Committee, the Treasurer, and, above all, by the single-minded and laborious General Secretary, Mr. Fowke, advance now steadily year by year to a more and more solid position. The balance of profit on the last year's operations amounts to about a thousand pounds; and this notwithstanding (perhaps even partly because) the increasing bulk of the results of the scientific activity of the growing body of members, and the wider field over which the reports of their proceedings spread, have necessitated and justified a corresponding increase of the JOURNAL, which is now not only the most widely circulated medical journal in the country, as the Report of the Council states, but also, we believe, that which contains by far the greatest bulk of important and original scientific matter. Notwithstanding that each member now receives for the guinea subscription a more valuable and more costly weekly return in the form of the JOURNAL, and the expenses of committees and of central management are somewhat expanding in proportion to the increasing field of activity of the whole Association and of its Branches, the more exact and scrupulous regulation of the business affairs of the Association which followed upon the reorganisation carried out three years since, at the instance of the late Mr. Clayton of Birmingham and of Mr. Hodgson of Brighton, has resulted in a steady improvement in the financial position, such that the Association, which has for a series of years been conducting, without capital, a large business of printing and publishing upon credit, is now already advanced to the possibility of conducting its affairs without any necessity for credit. All accounts due have, as the Treasurer with just satisfaction announced, been paid out of moneys received; and the available assets of the Association, which of course, as in all running businesses, include a large amount of quickly available book-debts, stand to its credit, without any set-off. In another year, it will, it may be expected, be possible to make a still further step in advance, and to set aside from surplus revenue a certain balance, available as a small cash reserve, without which no large business can be prudently or quite satisfactorily carried on.

Meantime, bearing in mind the great professional objects of the Association, which are not only to promote scientific research by promulgating its results and by discussing their bearings, but also to encourage such research by all possible means, the Association has this year increased its Grants for the Encouragement of Research in Medicine and the Medical Sciences. The Report of the Edinburgh Committee on the Action of Mercury has been followed up by the Report of the same Committee on the Antagonism of Remedies, towards which the like grant of £100 had been made last year. For the ensuing year, the Association offers grants of £200 for researches. Very few applications have, however, yet been made, although the intention to make such grants has been widely promulgated.

We publish this week the Addresses of the distinguished orators and of the Presidents of Sections. It will be generally felt that they are of a very high order of merit. No less could have been expected from the philosophic erudition of Dr. Reynolds, the ripe and accurate powers of Mr. Cadge, and the fearless investigation for which Dr. Matthews Duncan is known. Sir James Paget, gracefully stepping down to a second place, such as the men of highest reputations may most gracefully occupy, delivered, as President of the Surgical Section, an address peculiarly suitable to the place, and well worthy of the orator. All the sectional addresses will appear in these pages, and we shall have occasion to return to the consideration of them.

The meeting is still in progress as we write. We cannot close this passing note of some of its earlier incidents without referring with pleasure to a few more of its many agreeable occurrences. Among these must be noticed the presence of many of our Irish and Scotch brethren; the re-election of Dr. George Paget, the late President of the General Medical Council, to the membership and the vice-presidency of the Association; and the cordial invitations which have been proffered to the Association to Edinburgh next year, and to two great provincial towns for the following year.

THE meeting of the Italian Medical Association will be held this year in Bologna, commencing on September 22nd.

THE Rev. John George Brighton, M.D., has been presented to the vicarage of Dormston, Worcestershire.

MAJOR BATHURST has erected a cottage infirmary at Cirencester, as a memorial to his late wife, and presented it to the town.

AT a special meeting of the governors, August 6th, S. Spratly, M.D., was elected surgeon to the Birkenhead Borough Hospital, *vice* H. O. Wilson, Esq., resigned through ill health.

THE Library of the Royal Medical and Chirurgical Society was closed on Monday, August 10th, and will be reopened on Thursday, September 10th next.

THE magistrates of Buda-Pesth have decided on erecting mortuaries in the churchyards of the city, to which it will be obligatory on all families inhabiting single apartments to bring the bodies of persons who die in their rooms.

DR. WESTPHAL, who has for some time held the office of Director of the Department for Diseases of the Mind and Nervous System in the Charité Hospital, has been appointed ordinary Professor of Psychological Medicine in the University of Berlin.

THE ceremony of laying the foundation-stone of the New Asylum for the Central London Sick Asylum District, on the site of the Old Strand Union in Cleveland Street, was performed on August 6th by Sir Sydney H. Waterlow, the Chairman of the Central London Sick Asylum District Board, in the presence of the members of that body, and of the county magistracy, and others.

CHOLERA IN VIENNA.

SOME of the Vienna papers have stated that cases of cholera have recently occurred in that city. The *Wiener Medizinische Wochenschrift*, however, states that this is an error, arising from the confusion with cholera of the cases of diarrhœa and vomiting occurring in children during the hot weather. Since December of last year, there has been no case of Asiatic cholera in Vienna; and no instance of its occurrence has been reported from any of the provinces of the empire.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following are the hospitals and schools of surgery and medicine in the British dependencies, colonies, and foreign countries, from which certificates of the professional education of candidates for the fellowship and membership will be received by this college for the year commencing August 1st, 1874, viz.: The Medical College of Bengal, the Medical College of Madras, the Grant Medical College at Bombay. Canada: The University of Toronto, the University of McGill College, Montreal; the University of Victoria College, Toronto; Bishop's College, Montreal; the Royal College of Physicians and Surgeons, Kingston; the University of Laval, Quebec; Dalhousie College and

University, Halifax, Nova Scotia. Australia: The University of Melbourne, the Melbourne Hospital, University of Sydney, the Sydney Infirmary, Adelaide Hospital. Tasmania: The General Hospital, Hobart Town; the General Hospital, Launceston. Paris, Montpellier, Strasburg, Berlin, Vienna, Heidelberg, Bonn, Göttingen, Wurzburg, Leyden, Liege, Pavia, Pisa, Royal Caroline Institute, Stockholm, Copenhagen, New York, Philadelphia, Harvard University, Cambridge, Boston.

PUTRID MILK.

LORD DUNMORE'S difficulty is the difficulty that a great many people experience; they do not understand how the Adulteration Acts are worked. Had his lordship merely told his servant, after taking some milk, to say to the person who brought it to the house, "I am going to have this milk analysed; and if you like to come with me to the inspector, to see that I do not tamper with it, you can", there would have been no difficulty on account of formalities; the inspector would, on receiving the small fee allowed by the Act, have taken the sample, given part of it to the public analyst, and kept the rest sealed up carefully; an analysis would have been made, and a certificate given upon which (if it showed the sample to be adulterated) a prosecution could have been undertaken. Or again, if, on receiving the report of the analyst whom he privately employed, Lord Dunmore had simply written a line to the inspector to say that he suspected a certain dairyman of selling adulterated milk, it would have been his duty to purchase a sample, and then warn the seller that he was going to have it analysed; such warning is obviously necessary, in the case of private purchasers at any rate, as otherwise a man would have it in his power to ruin a tradesman by purchasing an article, then adulterating it himself, and taking it to the inspector. We have not yet heard, after inquiry, of any other cases of enteric fever in households said to be supplied with milk from the same cow and in every way similar; and we confess that this fact would make us hesitate, even after the results of the analysis, before accepting the theory that the poison emanated from the dairy. We are afraid that one of the letters published in the *Times* will appear to give countenance to the idea that the milk of diseased cows, or of cows fed in some particular way, is capable of giving enteric fever to persons drinking it. This idea (as connected with sewage-grown grass) was started last year; and we take this opportunity of stating that it is entirely without foundation, and is merely an unsupported hypothesis without any value whatever, but tending rather to do harm, by diverting the public attention from the real causes of this preventable disease.

RAILWAY INJURIES.

TWO actions for damages, brought against the North-Western and the Great Northern Railway Companies, have produced the most extraordinarily contradictory medical evidence—evidence so contradictory, that in one case the jury was quite unable to come to any decision upon it, and in another it produced an exactly contrary effect on the mind of judge and jury to that which was desired. In the first instance, the plaintiff, a Whitechapel commercial traveller, brought an action against the North-Western Railway Company for damages received in a collision which occurred on December 10th, whilst travelling between Birmingham and Northampton. He was, however, at the time, so little injured and inconvenienced by the accident, that he continued his journey to Northampton, transacted his business there, went next day on to Bedford, and returned home. On the 11th, his medical man, Mr. Braye, was sent for, and found him suffering from epileptic fits. He continued to attend him through December and January, and declared him to be suffering from meningitis, accompanied with delirium and a pulse at 100. In the middle of January, Mr. Page visited the patient constantly on the part of the company, and stated that he had invariably found the pulse and temperature natural and normal, and that there was no trace whatever of disease. In February, the patient improved, and in March was able to leave his bed. Dr. Risdon Bennett, Dr. Down, and Dr. Sutton, saw the plaintiff at different times, and all pronounced him to be suffering from hysterical or emotional disturbance. Mr. Page, the surgeon on the part of the company, feeling convinced that "the case was not genuine", sought the advice of Mr. Barnard Holt and Mr. Savory; and on April 14th they all three saw the plaintiff together. They all agreed that, though there was "an emotional element" in the case, there was no lesion or disease, nor any organic injury; that the case was one of hysteria; and that the man might be well in a week. The evidence at the trial went to show that the plaintiff in May and June was able to move about and work in his garden, though he was never seen by his medical man except in bed or on a couch. When brought into court, he was unable to stand; and, when laid on a bench, stretched his lower limbs out rigidly, shook his hands violently, and professed to be unable to speak audibly. Mr. Braye, Dr. Risdon Bennett, Dr. Down, and Dr. Sutton, were called, and gave evidence that these hysterical symptoms were due to the shock. Mr. Savory stated, on the contrary, that he believed that the appearance he presented was assumed, and the result of voluntary action; and Mr. Holt reiterated that no amount of present prostration would displace his opinion; and, even assuming it to be genuine, it might be the result of constitutional peculiarities independent of the accident, and might pass away in a week. After the judge's summing up, the jury retired; but, after consulting together for four hours, they declared that there was no chance of their agreeing; and thus, at eleven o'clock in the evening, they were discharged. In the second case, the medical evidence was still more conflicting and contradictory. The plaintiff, Mrs. Loweak, had received an injury from concussion last October. The case was admitted to be genuine, and the company had paid £240 into court; but the plaintiff and her husband were not satisfied. The only question was, therefore, the amount of the damage, which turned upon the nature and extent of the injury. Her own medical attendant, and Mr. Savory and Mr. Le Gros Clark, stated their conviction that there was lesion of the spinal cord, resulting in partial paralysis; and that she could not recover. They all thought this condition was the result of the injury. Dr. Ramskill, Mr. Carr Jackson, and Mr. Hancock, were called for the company, and gave their opinions that there were no symptoms of spinal disease, or of partial paralysis; that she was suffering from disordered volition, a strain of the outer ligaments of the spine, and hysteria, consequent on the shock; and they stated their belief that she would probably be well in nine or twelve months. Mr. Le Gros Clark asserted, on the contrary, that she would probably not live six months. In appearance, the woman seemed very weak, and was unable to move or walk without assistance. In summing up, the judge showed how the case for the defendant was stronger in favour of the plaintiff than that of the plaintiff; for the damages would be less in the event of her living a shorter time, and then dying, than in the event of her living a longer time in a feeble state, and then recovering. Damages were eventually given to the amount of £600, inclusive of the £240 already paid into court.

HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

A GENERAL court of governors was held at the hospital on Thursday week, for the advertised purpose of "considering a proposition made for a change of name of the institution". Reporters from the press were refused admission.

EDINBURGH UNIVERSITY CLUB IN LONDON.

THE quarterly dinner was held at St. James's Hall Restaurant on August 1st (Capping Day), at 7 P.M., Dr. Cobbold, F.R.S., in the chair. Amongst the visitors, were Sir Bartle Frere, Dr. Vandyke Carter, Professor Mariette (King's College), and Mr. Hortin. About thirty members sat down. The chairman, after the usual loyal toasts, in proposing "the Edinburgh University", said that at present she showed no signs of decay. As linking the present with the past illustrious roll of teachers, he might mention the names of Sir R. Christison, Dr. Balfour, and Dr. Hughes Bennett. The University would maintain her intellectual position by selecting the foremost men in theology, law, art, and medicine. He concluded a most eloquent speech by urging warm sympathies in supporting the interest and welfare of the

Edinburgh graduates. Sir Bartle Frere, in responding for the visitors, stated that his experience showed a growing reluctance on the part of Scotch graduates to accept public service abroad; and then, in graceful terms, proposed the health of the chairman. Drs. Glover, Halley, Cook, and Cobbold sang some old ballads with good effect. Dr. Ramsay (Torquay), Dr. Birdwood (India Office), and Mr. William Spowart Beveridge, were admitted as new members of this prosperous Club.

BROMPTON HOSPITAL FOR CONSUMPTION.

FROM the Report of the Managing Committee just presented, it appears that Vice-Chancellor Sir R. Malins has made an order for a further payment of £19,403 : 14 : 11, the balance of Miss Read's bequest. The following legacies were also announced: Mr. Richard Arnold, £1,000, reversionary; Miss S. Robinson, £100, duty free; Mr. S. Stannah, £3,000, contingent only; Miss Plummer, £1,000, contingent only; Mr. T. Banting, £1,800, duty free; Mr. G. A. Maiden, £500, reversionary.

CLIFTON UNION.

THE report of Mr. David Davies, the medical officer of the above district, is unusually favourable, and presents a remarkable diminution of mortality in comparison with that of the previous quarter, two deaths only occurred from zymotic diseases, one being measles, and one diarrhœa; of the latter, Mr. Davies says:

> "It is my own firm belief that the great majority of deaths recorded in this country, from diarrhœa, in infants, are not zymotic or infectious in their character, but the result of either an originally bad constitution derived from diseased parents, the want of breast-milk or other appropriate food, and, above all other causes, the want of proper care and nursing by those who are disqualified by ignorance and poverty for the responsible charge of infant life. The fact of only three deaths from phthisis having been recorded is an important one. With improved drainage, he hopes to see the deaths recorded from this disease reduced to the lowest possible figure. The sanitary authority are sparing no expense to permanently improve this rapidly-increasing district."

WESTMINSTER HOSPITAL.

AN important addition to the buildings of this medical school is being made. A new physiological laboratory, and also an addition to the chemical laboratory, are being built according to plans which have been provided, and are rapidly approaching completion. A considerable expenditure has been incurred by the lecturers, both in supplementing the grant which has been liberally made by the governors of the hospital towards the building and in providing the necessary fittings, but it has been wisely considered that the complete efficiency of physiological teaching is a most essential part of medical training.

THE MEDICAL EDUCATION OF WOMEN.

MISS PHILOMENE RATINCKX of Antwerp has passed a brilliant examination in the anatomical sciences before the combined jury of Ghent and Louvain for the faculty of medicine. She has also obtained the Royal diploma for the treatment of clubfoot. Two Circassian ladies, at the Russian Academy of Medicine and Surgery, propose to return to their own country to practise the profession when they have taken their degrees.

THE UNIVERSITY OF EDINBURGH.

PROFESSOR SPENCE, in addressing the candidates for degrees on capping-day (Saturday, August 1) paid a warm tribute to the services of Dr. Hughes Bennett.

> "Gifted with great talent; as a teacher eloquent, enthusiastic, and energetic, and possessing the power of exciting enthusiasm in others, his great object seemed to be to instruct the students how to observe and to teach themselves. Eminent in his special department—great as a clinical teacher—his former pupils will regard him with gratitude for what he taught, and for the impulses he gave, whilst we, his colleagues, will miss him alike in the senate and in social life. His labours have added lustre to this University, and few names will more deservedly hold a place amongst its worthies than that of John Hughes Bennett."
> These remarks were received with much applause."

THE PHYLLOXERA, OR VINE-DESTROYER.

THE *London Gazette* announces that the Board of Trade have received from the Secretary of State for Foreign Affairs a copy of a French law, promulgated on July 25th, instituting a prize of 300,000 francs (£12,000), to which may be added subscriptions from other sources, for the discovery of an efficacious and economical means of destroying the Phylloxera, or of preventing its ravages. A commission, nominated by the Minister of Agriculture and Commerce, will determine the conditions of competition and the award of the prize.

IRELAND.

THE DUBLIN MAIN DRAINAGE SCHEME AND THE LIFFEY NUISANCE.

WE mentioned last week that a public meeting of the citizens of Dublin had been called to consider the Dublin Main Drainage Scheme. The meeting, which was held on Wednesday last, assumed very much the character of an "indignation meeting", and a large majority of those present protested, in the strongest way, against the conduct of the Corporation in this and all other matters connected with the sanitary arrangements of the city, which have been so often the subject of unfavourable criticism. The meeting was attended by nearly all the leading citizens. The Lord Mayor, M.P. for the city, was in the chair, and beside him sat the other city member, Sir A. Guinness, and with him the Hon. David Plunket, one of the members for the University. The Lord Mayor was in an extremely uncomfortable position, but acted his part well. He made but a feeble attempt to defend the Corporation, the great defender of that body being one of the ex-members, who was received with such cries of disapprobation, that he with difficulty obtained a hearing. Finally, a citizen committee was appointed to consider the matter, and report to a future meeting. The municipal authorities were completely silenced; and, in fact, the citizens have taken the question of the main drainage out of the hands of those who should have carried it out years ago. This is the second occasion, within the present year, on which a citizen committee had to undertake to do, or undo, the work of the civic authorities. We hope to hear that good work has been done by the citizen committee.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS AND FEMALE LICENTIATES IN MIDWIFERY.

WE announced in our last issue, that a lady had applied for permission to be examined for the licence of the College to practise as a midwife. Miss Ellen Greenstreet accordingly presented herself for examination on the 6th instant, and passed the examination in a very creditable manner. Miss Greenstreet was lady superintendent of Sir Patrick Dun's Hospital. The question whether this diploma is or is not registerable may be raised at any time. We believe there is little doubt that the diploma is a registerable qualification.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE forty-fourth annual meeting of this Association will commence at Belfast on Wednesday, the 19th instant, and will last for seven or eight days. In Mathematical and Physical Science, Professor Jellett will preside; in Chemical Science, Professor A. Crum Browne; in Geology, Professor Hull; and in Biology, Professor Redfern.

DUBLIN SANITARY ASSOCIATION.

THE annual report of the Executive Committee of this Association has been published. During the twelve months, 519 cases of nuisances were reported upon, and the great majority of these were abated. The death- and birth-rates, both in Dublin and London, are referred to for a period of twenty weeks preceding the 23rd May last; and we learn from these records that the average death-rate in London was but 22.2 per 1000, whilst in Dublin it amounted to 27.0 per 1000; which, however, is an improvement over the preceding year, when it showed 30.5. The increase in zymotic diseases since last year was four times as great in Dublin as in London, scarlatina being eight times more fatal; diphtheria, twice as fatal; fever, nearly four times; and diarrhœa, twice as fatal. These results show that the exertions of the Dublin Sanitary and kindred associations are still urgently required to diminish the mortality in zymotic affections now so lamentably prevalent.

FORTY-SECOND ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in NORWICH, August 11th, 12th, 13th, and 14th, 1874.

First General Meeting, Tuesday, August 11th.

The forty-second annual meeting of the Association was opened at Norwich on Tuesday, the 11th inst. The arrangements for the meeting were made by the local secretaries, Dr. J. B. Pitt, H. S. Robinson, Esq., and Dr. Beverley. The meeting was opened by a service in the Cathedral, the Rev. Canon Heaviside preaching a special sermon, after a fine choral service. A meeting of the Committee of Council, and a meeting of the Council of 1873-4, preceded the general meeting of members.

The first general meeting of members was held in Noverre's Room, Theatre Street, Norwich, in the evening, the President, Sir William Fergusson, in the chair. Among the local gentlemen, not connected with the profession who were present, were Mr. J. J. Colman, M.P., Sir Samuel Bignold, Mr. S. Gurney Buxton (Mayor of Norwich), Mr. A. R. Chamberlain (Sheriff of Norwich), etc.

The President, who was warmly cheered on rising, then said—I believe the principal duty which I have to perform to-night is to bid you respectfully farewell, as your President, and to introduce to you that gentleman who has been selected from the physicians of this city to succeed me. It would be an affectation of coldness on my part—a coldness which is not in accordance with my nature—to quit you with such brief remarks, although this formal resignation of office would seem to indicate that no other words from me are necessary—I certainly, however, do not intend to detain you long, knowing that you are all anxious to hear the remarks of your new President. Allow me, first, to reiterate the thanks which I offered to you this day twelvemonths, for placing me in this position of honour. I felt, at the time I was elected, that I was peculiarly fortunate in this respect—that your yearly meeting on that occasion took place in the great metropolis—[*cheers*]—and it was an honour which I had not anticipated, in the most ambitious thoughts that ever passed through my mind, to be selected and elected as your President on so interesting and important an occasion. [*Cheers.*] Well, gentlemen, I beg to congratulate you upon your forty-second year, and upon your having met now in this ancient and interesting city—a city renowned in the history of England, and, I may say, renowned in all things connected with our noble profession. [*Cheers.*] It is impossible, on an occasion like this, seeing that there are present here so many of our profession, to omit looking back upon the history of this city, in regard to medicine and the medical art. We are all willing to concede to Norwich all that is due to it, in respect to its advancement in the amenities of social life; but its charm for us lies in the fact that the city has been the cradle of much that is good and great in the profession we have the honour to follow. We all of us must know and feel that the provincial towns have done much for our profession. I speak chiefly as a metropolitan man, and I may say that I feel that the advancement of our art is largely due to what has been done in the large provincial towns, and the work of Norwich has been prominent in this respect. Although it is impossible for us, when we come into Norfolk, and into Norwich, not to "think back" upon some of those celebrities in medicine who have preceded us in this great city—upon those who have left their foot-prints in the dust we tread—you will pardon me when I recall to your minds the names of Cooper, of Astley, of Martineau, of Dalrymple, of Crosse; and so I could go on naming the names of men who would be recognised as having done the noblest work for our great profession. In one especial department—and I refer to it chiefly because it is uppermost in my mind—that of surgery—I believe that so long as the memory of Cheselden is recognised in our profession, the names of Martineau and Crosse will stand on an equal footing. I am thankful, gentlemen, that it is my high privilege to stand in this position, on so memorable an occasion as the one in which you, for the second time, visit this town and this locality, which are so much associated with all that our profession has of late years achieved. It is not our custom to speak of living authorities by name, but I would beg you to bear in mind that there are those alive and around us, who will do as much in their time as has been done by those whose names we so well remember, to keep up and press on all that appertains to, or would add to, the honour and glory of the medical art. Standing, as I do, here, as your President, and, as your President, about to fade away, I can but congratulate you upon that report which is now about to be laid before you, and which will show the great progress the Association has made during these last twelve months. The members of the Association have largely increased during that period, the pecuniary resources have grown greatly, and in such a way, I may mention, as will make those who have the interest of the Association at heart in a happy state of mind. The great pecuniary difficulties of bygone years have passed away, and your Association is now in command of resources which, in the future, will enable it to carry out purposes which have been long desired. I need, gentlemen, hardly say to you, that as one who has held this position—this most honourable position—of President, it is a matter of the deepest gratification to me to report this condition of progress to you. The Association has done more than maintain its position; it has made such way that I cannot but anticipate for it a great future, and still greater life of usefulness than it has yet attained. There is no institution in any part of the world, that I know, connected with our profession, which in any way resembles in power and influence our League; and it will be for you yourselves to keep up the high character it has achieved, mainly through the efforts of those great men who stood in our places forty years ago, and who now lie honoured in their graves. I shall not say more now upon this subject of the report—a report which I have seen, and have therefore felt no hesitation in mentioning it to you. I will call upon you to give your attention while Mr. Fowke, our general secretary, reads the minutes of the last annual meeting.

The President then resumed his seat amid loud cheers, and Mr. F. Fowke, the secretary, read the minutes of the last annual meeting.

On the motion of Sir John Cordy Burrows, it was carried unanimously that the minutes be signed.

Sir William Fergusson then vacated the chair, and, amid cheers, introduced Dr. Copeman, the new President, who thereupon took his seat, amid renewed cheers.

Mr. Southam, who was received with applause, said that he had a pleasing duty to perform, and he was sure that the whole Association would join with him in the proposal he had to make. He begged to propose: "That the best thanks of the Association are due, and are hereby given, to Sir William Fergusson, for the able and efficient manner in which he has fulfilled the office of President, and he be, and is hereby, elected a Vice-President of the Association for life." The mover said it was unnecessary for him to add anything in order to induce the meeting to adopt this resolution; but he would say that the Association would never forget the magnificent reception they had met with in London last year, and they would never forget how gracefully and how ably they were presided over by Sir William. Knowing how anxious every one present was to hear the new President's address, the mover said he would not detain them further than to say again that they all regretted losing Sir William Fergusson, and that they desired to convey to him their best wishes for his health and happiness.

Sir J. R. Cormack said it was with peculiar pleasure that he seconded the motion; and he said "peculiar pleasure" because, though there might be in that room many who were old admirers of Sir William Fergusson, yet he had himself watched their late President's career even when he was a student, and saw in him that power which had led him to the high position he now so worthily occupied in the esteem of the public and in the hearts of the profession. [*Cheers.*] It was, therefore, with "peculiar pleasure" that he (Sir John) seconded the vote.

The motion was put as a matter of form, and carried amid enthusiastic cheers.

Sir William Fergusson replied: Mr. President and gentlemen, I thank you all very much for this additional mark of your respect and esteem. I assure you that I feel more proud now, at the end of my year's presidentship, at receiving these marks of your favour than I did when you installed me in the President's chair. Throughout my professional life—from the time, indeed, when I was a mere boy—it has always been my ambition to stand well with my fellows—with my fellow-students when I was a student, and with my brother practitioners in after years—and your election a year since, coupled with the honours you have now given me, tend to impress me with the thought that I stand fairly with the profession. [*Cheers.*] The position you a year ago placed me in was a proof to me of this, and so I accepted it, and the vote of this evening is another proof; and, gentlemen, I assure you that the remembrance of your kindness will remain in my mind so long as memory lives. [*Cheers.*]

The PRESIDENT then delivered his address (given at page 195), and resumed his seat amid loud cheers.

Report of Council.—Mr. FOWKE, General Secretary, read the following report.

After an interval of twenty-eight years, your Council has much pleasure in meeting you again in the ancient city of Norwich, famous not only for its historical reminiscences, but for the number of eminent medical residents who have contributed much to the promotion of medical and surgical science. The Association visited Norwich in 1846, as the Provincial Medical and Surgical Association, when the members numbered only 1856; it now numbers between 5,000 and 6,000 members. The income in 1846 was £1,879, and it is now upwards of £8,000.

The financial condition of the Association is highly encouraging: the debt, which at the close of last year amounted to £1,105 : 4 : 9, was reduced to £212 : 5 on the 1st of January of the present year, with a large balance of assets in favour of the Association; and your Council fully anticipates that on the 31st of December next not only will the whole of this debt be paid off, but that a cash balance will be in the hands of the Treasurer to the credit of the Association.

The total expenditure for the past year shows an increase of £1,117—being £7,770 against £6,653 in 1872; the principal item of increase is the printing of the JOURNAL, viz., £752. This is in consequence of the larger number required to meet the great accession of new members at the last annual meeting, which the many attractions and great popularity of the London meeting caused; the increase in the number printed is 1,000 weekly—the issue now amounting to 6,500. The JOURNAL was also increased in size from time to time during the year to meet the great demands upon its columns. In the items of extraordinary expenditure, £277 was paid for a thorough examination of the books and balance-sheets drawn out for 1871 and 1872, with profit and loss accounts, by skilled accountants, in order that the future accounts of the Association might be kept in a business-like and satisfactory manner.

The increase in the income of the Association during the past year has been £987. The total amount due for the year being £8,773, against £7,786 in 1872, while the actual receipts have been £8,511, against £7,672 in 1872, an increase of £939. The difference between the amount due to the Association and the actual receipts for the year 1873 is only £262; the amount due being £8,773, and the amount received £8,511. The surplus of profits on the operations for the year is £1,003 : 13 : 4.

The satisfactory financial position of the Association is due to the labours of your Treasurer and Journal and Finance Committee, by whom the accounts are carefully audited and passed every quarter, and to whom the thanks of the Association are eminently due.

Having regard to the satisfactory financial condition of the Association, your Council recommends that a grant be made of £200, for distribution in grants in aid of researches in medical sciences and other collateral subjects; also that a grant Subcommittee be appointed to advise the Committee of Council as to the proper distribution of the proposed grants; one half, at least, of such Subcommittee to consist of members of the Committee of Council, with power to add to the numbers within the assigned limits. The President of your Council has received one application, and your Council recommends that any further application should be made before the termination of the annual meeting.

The JOURNAL continues to be most ably and impartially edited, and to render valuable services to the Association and to the profession at large. It has now the largest circulation of any of the medical periodicals, and exercises an important influence over the profession by the promotion of medical science, through the valuable original contributions which it publishes, by its support of medical interests and the welfare of the public services, and by its energetic advocacy of reforms.

Your Council regrets to report that, during the past year, eighty-nine deaths have occurred amongst your members, and there have been also ninety-six resignations, the number of members now on the list is 5,443.

The incorporation of the Association, alluded to in the last annual report, has received very earnest consideration during the past year, and will be again brought before you at a special general meeting of members, to be held on Thursday next, the 13th instant, on the conclusion of the address in surgery, as advertised in the JOURNAL. The memorandum and articles of Association (with the by-laws of the incorporated Association) have received most careful attention from the combined Subcommittees, viz., the Subcommittee appointed by a resolution of the last annual meeting to consider the laws, and a Subcommittee appointed by the Committee of Council to consider and report upon the incorporation of the Association, as well as from your legal adviser, Mr. J. R. Upton. After long and anxious consideration of this matter, your Council trusts that no obstacle will arise to prevent this important and most necessary step being taken, and that the memorandum and articles of Association will be passed.

The Joint Committee on State Medicine has instituted an extensive inquiry into the working of the Public Health Act, 1872. Owing to the extent and complexity of the returns to the inquiries made by the Committee, it has been found impossible to make any statement of the results to this meeting.

The Parliamentary Bills Committee has been actively employed during the year in pressing to a favourable solution important questions affecting medical and public interests. In a letter addressed to Mr. Ernest Hart, as Chairman of the Committee, the Earl of Morley, Under Secretary of State for War, announced certain concessions on matters which had been laid before Mr. Secretary Cardwell on a previous occasion by the Committee, and enclosed a copy of a War Office circular amending the last Warrant. These concessions, however, have been judged insufficient, and, as it is certain that the army medical service cannot be rendered popular and efficient until a great change is made in the matters which are now the subject of complaint, the Committee has made further representations to Mr. Hardy, which are still under consideration. The position of the naval medical service is even more unsatisfactory than that of the army, and the just unpopularity of the present conditions of pay, retirement, and promotion is shown in numerical insufficiency and general discontent of the medical officers. The Committee finds that the whole case was carefully and fully laid before Mr. Secretary Hunt upon data which represent faithfully the wishes of the service, and measures are, it is stated, being prepared to satisfy some of these demands. It remains to be seen whether they will be adequate for the purpose. The exertions of the Committee have been most gratefully acknowledged in letters addressed to the Chairman from officers of all grades of the services, and the ultimate result must be beneficial to the services, the profession, and the public. A considerable number of the members of both services have joined the Association during the past year. The Committee has also had under consideration the scheme of the Obstetrical Society for the education of midwives, which it has remitted, with proposed amendments, to the Branches. It has, with the assistance of many influential medical officers of health, proposed to the President of the Local Government Board a number of amendments of the Sanitary Laws Amendment Bill, of which several were accepted by the Government and incorporated in the Bill. This Committee was invited by the Joint Sanitary Committee of the Association of the Dublin Medical Corporations to assist in pressing on the Government certain amendments in the Public Health Bill (Ireland), 1874, and the Committee had the pleasure of lending some assistance, of which the value has been warmly acknowledged in the report of the Joint Sanitary Committee. The Registration of Births and Deaths Bill has also been the subject of certain proposed amendments, which were laid before Mr. Sclater-Booth, M.P., at a joint deputation of the Committee and other public bodies, with the object of enabling medical men to recover fees for death certificates, etc., of making death certificates more valuable and accurate as records of fact, and of preventing the unregistered disposal of the bodies of still-born children.

In accordance with a resolution of the last annual meeting, August 7th, 1873, upon the recommendation of the Registration Committee, a petition has been prepared and presented on behalf of the Association by the Right Hon. Dr. Lyon Playfair, F.R.S., to whom the thanks of the Association are again due for this service. A memorial has also been forwarded to the Right Hon. Mr. Sclater Booth; and the Local Government Board, in acknowledging its receipt, have promised attention to the representations of the memorialists.

The Qualification in State Medicine Committee, which was appointed for the first time at the last general meeting, has held several meetings, and will present a report upon the subject.

Two Essays have been received for competition for the Hastings Prize Essay on the subject of the "Action of Alcohol in Health and Disease", and your Council has to report that the medal has not been awarded.

The Council has the pleasure of reporting that Dr. Paget, Regius Professor of Medicine in the University of Cambridge, has rejoined the Association; and recommends that his name be replaced in the list of Vice-Presidents.

In compliance with Law 18, your Council recommends that Professor Bardeleben of Berlin, Dr. Noël Gueneau de Mussy of Paris, and Dr. Simon of Heidelberg, who were present at the last annual meeting, be elected honorary members of the Association.

Your Council regrets to report the loss by death of several eminent members of the Association—amongst them Dr. Ward of Huntingdon; Dr. G. F. Evans of Birmingham; Dr. Thurnam of Devizes; Dr. John Murray, your late Subeditor; Mr. T. L. Pridham, late President of the South-Western Branch; Mr. T. Ebbage of Leamington, late President of the Birmingham and Midland Counties Branch, who took an active part at the late meeting in Birmingham; and Dr. Charlton of Newcastle, who was President of the Association in 1870, when the Association met at Newcastle.

Your Council has viewed with the highest satisfaction the formation of two new Branches, the Southern and Staffordshire, and the efficient working during the year of those previously formed, and would especially thank the Branch Secretaries for their unremitting attention not only to the working of their respective Branches, but to the general interests of the Association.

A requisition has been presented to your Council, numerously and influentially signed, asking that the annual meeting of the Association for 1875 shall be held in the city of Edinburgh. Your Council feels assured that the acceptance of the invitation to meet in that far-famed seat of learning will be confirmed by an unanimous vote of the Association.

In concluding this report, your Council congratulates the Association on having passed through a year of active usefulness, on the improvement in its financial position, and on the fair prospect of extended influence and power to promote the best interests of the profession.

Summary of Receipts and Payments for the Twelve Months ending December 31st, 1873.

DR.] TO RECEIPTS.	£	s.	d.	£	s.	d.
Cash in hand on 31st January, 1873, viz.:—						
In Treasurer's hands	625	3	8			
At Messrs. Robarts, London	168	17	10			
With General Secretary	9	9	10			
				803	11	4
Subscriptions				5333	12	6
Advertisements				2912	13	7
Sundry Receipts				11	14	0
Sale of Waste				11	15	9
Sundry Sales of Journal				217	19	0
Interest				22	19	3
				£9314	5	5

CR.] BY PAYMENTS.	£	s.	d.	£	s.	d.
Editor				250	0	0
Sub-Editors				118	15	0
Printer, for Journal				5883	15	3
Contributors				977	16	6
Engraving and Lithographing				49	2	6
Reporters				47	1	4
Sundry Journal Expenses (Newspapers)	£20	0	5			
Ditto, Editor's (Telegrams, Cabs, etc.)	9	14	6			
				29	14	11
Grants to Committees, Scientific, etc.:—						
Dr. J. Hughes Bennett				50	0	0
Dr. Tripe, Subcommittee on State Qualification				10	0	0
Dr. Stewart, Joint Committee on State Medicine				15	0	0
Expenses of Medical Reform Committee				28	12	5
Special Grant to Mr. Hart				26	5	0
General Secretary				350	0	0
Salaries and Wages (two Clerks, Office Boy and Editor's Boy)				224	19	0
Rent of Office				25	10	0
Accountant's Examination of Books and making out standing of Association for the two years 1871 and 1872 (Kain, Bullen, & Co.)				277	0	0
Law Charges				13	10	10
Cheque Book and Guarantee Policy of Collector				4	10	0
Postages (Office, Editors, and Journals to Foreign Subscribers)				157	0	2
Office Expenses—viz., balance from last year	£13	12	4			
Travelling Expenses of General Secretary	9	19	7			
Carriage on various Parcels	1	11	9			
Registered Letters, Unpaid Postage and Postal Cards	0	13	2			
Office Stationery, Ledgers, Account Books, Pens, Ink, Paper, etc.	26	18	10			
Office Telegrams	1	14	6			
Cleaning Office	12	13	6			
By Charges for Committee Rooms	2	3	0			
Receipt Stamps	1	16	1			
Assistance in Office, Copying, etc.	47	0	2			
Commission paid for Advertisements	20	9	7			
Branch Secretary	0	17	2			
Sundries	21	8	9			
				160	18	5
Bank Charges				0	5	6
Sundry Expenses of Honorary Secretaries				9	17	9
Cash in hand on 31st December, 1873, viz.:—						
In Treasurer's hands	578	13	5			
At Messrs. Robarts, London	42	2	7			
With General Secretary	13	0	9			
	633	16	9			
Less—Amount due to General Secretary on Office Expenses	29	5	11			
				604	10	10
				£9,314	5	5

Profit and Loss for the Twelve Months ending 31st December, 1873.

DR.]	£	s.	d.
To Editor	250	0	0
,, Sub-Editors	118	15	0
,, Printer, for Journal	4445	1	5
,, Contributors	924	0	5
,, Engraving and Lithographing	41	15	6
,, Reporters	63	12	10
,, Scientific and other Grants	135	13	1
,, General Secretary	350	0	0
,, Salaries and Wages of Clerks, Office and Editor's Boys	225	17	0
,, Rent of Office	25	0	0
,, Accountants (Kain, Bullen, and Co.)	277	0	0
,, Miscellaneous	4	10	0
,, Postages	157	0	2
,, Office Expenses	147	6	1
,, Sundry Journal Expenses	29	14	11
,, Bank Charges	1	5	3
,, Miscellaneous Printing	347	17	3
,, Discounts and Allowances on Advertisements	135	9	10
,, Losses upon Subscriptions, from Deaths, etc.	45	14	1
,, Sundries	34	4	0
,, Expenses of Hon. Secs.	9	17	9
,, By Profit for the Year ending December 31st, 1873	1003	13	4
	£8773	7	11

CR.]	£	s.	d.
By Sundry Sales of Journal	217	19	0
,, Subscriptions	5448	7	2
,, Advertisements	3060	12	9
,, Sundry Receipts	23	9	9
,, Interest	22	19	3
	£8773	7	11

Balance Sheet, 31st December, 1873.

LIABILITIES.	£	s.	d.	£	s.	d.
Subscriptions paid in advance				113	4	8
Printer, for Journal				6		5
Contributors				27	9	7
Reporters				16	11	6
Medical Reform Committee				5	15	8
Salaries and Wages				0	18	0
Rent of Office				12	10	0
Bank Charges				0	19	9
Sundries				34	4	0
Miscellaneous Printing				347	17	3
				816	15	10
Balance on January 1st, 1873	1683	17	6			
Profit for the Year ending December 31st, 1873	1003	13	4			
Total of excess of Assets over Liabilities				2687	10	10
				£3504	6	8

ASSETS.	£	s.	d.	£	s.	d.
Subscriptions				642	9	9
Advertisements				2188	7	5
Furniture				68	18	8
Cash in hand on 31st December, 1873, viz.:—						
In Treasurer's hands	578	13	5			
At Messrs. Robarts, London	42	2	7			
With General Secretary	13	0	9			
	633	16	9			
Less—Amount due to General Secretary on Office Expenses	29	5	11			
				604	10	10
				£3504	6	8

R. WILBRAHAM FALCONER, *Treasurer.*

We have examined the above accounts for the year 1873, with the books and vouchers of the Association, and find the same to be correct.

(Signed) PRICE, HOLYLAND, and WATERHOUSE.

13, Gresham Street, E.C., 15th April, 1874.

Dr. A. P. STEWART referred to the returns made by the State Medicine Committee, and expressed his regret that those returns had not been embodied in the report. Then, too, he thought it somewhat irregular that there should have been any recommendation made in the report in reference to the place of meeting next year, as that should come from the Committee of Council of the present year.

A MEMBER thought that the question of the place of meeting next year should be brought under the notice of the general meeting before being discussed by the Committee of Council.

Mr. FOWKE explained to Dr. Stewart, in reference to the last point, that the report made no recommendation, and did but mention the subject.

Mr. SOUTHAM said it was a matter which was properly dealt with by the Council, and not by the Committee of Council.

Dr. FALCONER, with respect to the returns of the State Medicine Committee, said that he had been entrusted by Dr. Stewart with these returns, which he had brought before the Council. There was a large amount of material; the Council could not, from such a mass of material, present a satisfactorily condensed report, and so it was thought better to leave the matter open. [*Hear, hear.*] He begged to move that the report of Council, together with the financial statement, be received and adopted, and entered on the minutes. [*Hear.*] He thought every one would agree with him that this was the most successful report ever presented. The Association had cleared itself of its pecuniary difficulties, the members of the Association had increased and were increasing, and thus the Association had been placed in the position of being able to enter upon schemes for the advancement of science which hitherto it had been unable to touch. He had before him the report of the previous meeting held in Norwich, and a comparison of that report with the one of the present time would show how true the Association had been to what it set itself to do, and how true it still was to its first principles; and it would be seen, too, how much in the interval of the two meetings had been brought to a conclusion through its efforts, and through the resolute energy of those who had guided it. [*Cheers.*]

Dr. Sibson seconded the motion, and said that the Association had never had a more important report; its true importance, too, not being so much in the great increase of the members to between five thousand and six thousand, although that was a great element, as in the steps taken to promote medical science, advance the medical profession in knowledge and *status*, and press on medical legislation. [*Cheers.*] It was in these things that the importance of the Association was seen, and so it was regarded by the profession and the public. Another important point was the great and satisfactory increase in the finances of the Association; and he trusted that, if the Association had not had the happiness arising from the possession of a good balance at the banker's, it was about to enter upon that, to it, new stage of existence. [*A laugh.*] As many of them were, doubtless, aware, there were three stages of existence with which most professional men were conversant; there was first the time when the income was under the outgoings—[*a laugh*]—then came the happy time when expenses and income balanced; but the happiest time was when there was something above the income, for then a man had the power to be useful, as he had the means of helping his fellows. So with the Association; it had passed through the stages of indebtedness and of having a difficulty to balance its accounts, and now he hoped they had reached that point where they could show that they had not lived in vain, by being able to give grants of money in aid of researches, to which some men had given their youth, their energy, and their age. In respect to this part of the report, he suggested some verbal alterations, so that the grants should be given "to aid in researches in medicine and in the allied sciences"; and he said the adoption of these words would bring the Association to the very words of Sir Charles Hastings so many years ago—a fact of which he himself should be very glad, as carrying them back to their early faith and early hopes. [*Cheers.*] He was also very glad to welcome back Dr. Paget. [*Loud cheers.*] They all knew how admirably Dr. Paget performed the office of President of the Medical Council, and those who remembered the good service he did in former days to the Association would readily accord to him the position he occupied of Vice-President. [*Cheers.*]

The suggested alteration was made in the report in regard to the grant, defining its purposes, as suggested by Dr. Sibson.

Mr. Sympson (Lincoln), while congratulating the Association on the report, thought the Council ought to be very careful as to what they did in regard to grants for "scientific purposes"; and, having regard to certain experiments made by vivisection, he held that these had not turned out as of much practical value, or of such value as was commensurate with the pain inflicted on the animals. He thought it should be an instruction to the Committee of Council to have the experiments made as practical as possible.

The Rev. Dr. Haughton, who was received with cheers, supported the views just enunciated, and said he had such a love for all animals that he shrank from the idea of allowing an ignorant, incompetent, unfeeling set of young savages—[*a laugh*]—putting the creatures in pain in the name of science. [*Cheers.*] He loved every creature that God had made, and regarding them as deserving of respect and consideration, he entered his protest against any idea that young men were to be thought at liberty to sacrifice their feelings in the name of science. [*Hear.*] It was necessary sometimes to make sacrifices, certainly, for the good of humanity, and everyone should be ready to sacrifice himself; but he had always maintained, in regard to this terrible question of vivisection, that no man should submit the lower animals—a rat, a rabbit, a horse, or an ass—to experiments to which he—the wretched ass of a man—[*loud laughter*]—would not himself submit. He called upon every man of medical science—of real science—to help in laying down some rule, some principles upon which the profession should act upon this question of vivisection. This was a question on which the profession was upon its trial before the public, and the public would judge the profession not as it would judge itself. For himself, he could say that his feelings were not yet hardened to the sense of pain in others. He could not see a person under chloroform the subject of treatment, without feeling in some sense his pain—indeed, he could not see anything suffer, but he suffered with it. [*Cheers.*] Therefore, he felt that the profession would be entering upon a most dangerous course if it seemed to give unlimited privilege to raw, ignorant students—ignorant of their own nature, and with an utter disregard of humanity—to make these unfruitful experiments—experiments which would never give a single result to science.

Explanations were made that the grants would not have the effects the reverend doctor feared, and the report was unanimously adopted.

Mr. Michael then moved that Mr. Francis Fowke be re-elected to the position of General Secretary. The mover said that the Association could see the effect of the good work Mr. Fowke had done in the present excellent position of the Association; and its rapid advancement to a sound position was undoubtedly due to the good services he had rendered.

Mr. Southam seconded the motion, which was carried unanimously amid loud cheers.

The meeting then closed.

Second General Meeting, Wednesday, August 12th.

The second general meeting of the Association was held in Noverre's Rooms, on Wednesday morning, August 12th, the President, Dr. Copeman, in the chair. There was a large number of members present.

The Meeting of 1875.—The President announced that the first business before the meeting was the election of a President-elect for 1875, and the appointment of the place of meeting for that year.

Dr. Chadwick (Leeds) said, that it was with the highest possible gratification that he moved that the place of meeting next year should be Edinburgh. He confessed he had a natural predilection for the northern capital; but, he would recommend the adoption of that city, and the acceptance of the invitation from the profession there, on the grounds of the distinguished men who were connected with it, and of the opportunities which the visit would offer for the study of science under the most favourable circumstances, in a city surrounded by the most beautiful scenery. He moved, "that the next meeting of the Association be held in Edinburgh, and that Sir Robert Christison, Bart., be the president-elect."

Mr. Crosse (Norwich) seconded the motion, and said that, looking at the attractions which Edinburgh offered, he had no doubt that the meeting there would be a perfect success.

Dr. Matthews Duncan, as a member of the profession in Edinburgh, supported the motion. It was unnecessary for him to say anything as to the natural beauties of Edinburgh; and he could only say that the members of the Association would find everything in that city to make their visit useful and pleasant. He pointed out that, among those who had signed the invitation, were the presidents of the Royal Colleges of Physicians and Surgeons, and of the Medico-Chirurgical and Royal Medical Societies, the Dean of the Faculty of Medicine in the University, and other leading members of the profession; and that it was cordially supported by the medical faculty generally, whether in general practice or on the staffs of infirmaries and hospitals in the place. [*Cheers.*]

The motion was unanimously adopted.

Committee of Council.—The president of the Council, Mr. Southam, read the following list of members elected by the Council as members of the Committee of Council, viz.: H. C. Bastian, M.D., F.R.S. (London); F. Bateman, M.D. (Norwich); Sir J. Cordy Burrows, (Brighton); G. W. Callender, Esq., F.R.S. (London); Alfred Carpenter, M.D. (Croydon); B. Foster, M.D. (Birmingham); E. L. Fox, M.D. (Clifton); R. Harrison, Esq. (Liverpool); Berkeley Hill Esq. (London); T. Humble, M.D. (Newcastle-on-Tyne); J. R. Humphreys, Esq. (Shrewsbury); F. E. Manby, Esq. (Wolverhampton); R. Quain, M.D., F.R.S. (London); W. R. E. Smart, M.D., R.N. (Haslar); T. Heckstall Smith, Esq. (St Mary Cray); T. Underhill, M.D. (West Bromwich); W. F. Wade, M.B. (Birmingham); A. T. H. Waters, M.D. (Liverpool); C. G. Wheelhouse, Esq. (Leeds); Eason Wilkinson, M.D. (Manchester).

Address in Medicine.—The address in medicine was read by J. Russell Reynolds, M.D., F.R.S. It is published at page 200. The reader of this paper resumed his seat amid loud and long-continued applause.

Dr. **Hughes Bennett** (Edinburgh) moved "That the best thanks of this meeting are due, and are hereby given, to Dr. Russell Reynolds for his able and interesting address in medicine." He said that he only interpreted the general views of the meeting, in making the motion. His opinion was, that of all the able addresses to which the Association had ever listened, it was seldom, if ever, that they had heard one more full of suggestive material. [*Cheers*]. It would be observed, at least it so struck him, that the one thought which ran through the address, was that with which the members of the profession had to concern themselves, and which Dr. Reynolds had denominated "the great mystery of life". On this so-called "mystery" all thinking men had pondered more or less during some time in their lives. For himself, he (Dr. Bennett) had tried to get rid of the idea of "mystery" as much as possible, and he had come to consider "life" as consisting of certain properties, in which there was nothing more mysterious than there was in the physical or material world. What was life? This was the question propounded, and he answered that it was something which had several properties. If he found a mass with the properties of growth, of contractility, of sensibility, and, above all, the power which was called mental, it was called "life"; but if it were asked what was the nature of these properties, then they were obliged to say, "We do not know"; and he, for his part, was content to say that he did not know. But as much was known about them as about other things. If a piece of steel could be bent that would show that it was elastic; but what was known about elasticity beyond the word? What had to be done was to examine these properties constituting life, and the natural laws which governed them; and that was the special occupation of the profession. When the profession began to enter upon this examination they were met, as had been pointed out in the address, by overwhelming difficulties, and, when these inquiries came to man, these difficulties were enormous. The question was, How can we overcome these difficulties? For thousands of years medical men had been trying to solve this problem, and, as Dr. Russell Reynolds had said, we had certainly not arrived at this knowledge. The medical profession were called upon to answer this question, "What can we do, what shall we do, to make a conscientious effort to meet these difficulties?" Dr. Reynolds had touched upon some of the modes by which the profession had tried to overcome these difficulties—the experiments on animals, and the value of statistics—but looking at the cautions which Dr. Reynolds had given them in regard to these, the profession was thrown back to the old question, "What shall we do?" Experiments could not be made upon man, and if, by means of clinical observation, so much had been gained as had been unquestionably acquired, he could not see why recourse could not be had to experiments on the inferior animals, to overcome the difficulties which met the medical man in the investigation of matters in relation to the human species. He maintained that man was justified in so making use of the inferior animals, and he pointed to the investigation in regard to the action of mercury on dogs, in the report given at Oxford, as showing that such investigations would prove of value in relation to the action of medicines on man. His object, in thus speaking, was not to essen the value of the address, but to urge that if the Association would find the funds, the means should be found for working out to the end these problems, for he considered that all these "mysteries" were capable of being settled.

Dr. **Bateman** (Norwich) seconded the motion, and endorsed all that had been said as to the value of the address. As a local practitioner, he congratulated the Association upon the successful gathering.

The motion was carried amid loud cheers, and Dr. **Russell Reynolds** returned thanks.

The meeting then adjourned. In the afternoon the meetings of sections were held.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, August 6th, 1874.

Nuisances at Woolwich.—Mr. **Sclater-Booth**, in reply to Mr. Boord, said some correspondence had taken place between the War Office and the Local Government Board, on the subject of nuisances rising from certain factories in the neighbourhood of Woolwich and Plumstead. The matter was under consideration, and he understood that the proprietors of the factories in question were taking steps to bate the evil.

Friday, August 7th.

Lunatic Asylums (*Ireland*).—In answer to Mr. Synan, Sir M. **Beach** aid the rules and regulations of the Irish Lunatic Asylums had recently been most carefully revised by a Committee of the Irish Privy ouncil, specially appointed for the purpose. An objection had been made by the Governors of the Limerick Lunatic Asylum to one of the rules relating to tenders, and on inquiry it was found that the view of the Governors of other lunatic asylums in Ireland was not the same as that of the Governors of the Limerick Lunatic Asylum. He was informed that some of the Governors of the latter had resigned, and others were likely to follow their example, and therefore he would consider whether it was in any way possible to alter the rule in accordance with their wishes. It was evident, however, that there must be one uniform rule for the whole of Ireland.

Kilmainham Hospital.—In answer to Sir J. Gray, Sir M. **Beach** said—I have communicated by telegraph with Dublin, and find that the Local Government Board have no official relations with Kilmainham Hospital or with Dr. Carte, the medical officer, and no knowledge of any outbreak of fever therein, the hospital being under the War Department in Ireland. I understand, however, that the water-supply of that establishment was not very good, and that there has been an outbreak of typhoid fever there. I am further given to understand that in consequence of this outbreak, provision was made to obtain a supply from the Vartry River. I believe that the works necessary are at present proceeding. There is no special hygienic qualification required for medical dispensary officers in Ireland, but all such officers are either "physicians and surgeons," or "surgeons and apothecaries," and must have been educated and examined in subjects which relate to what is called "hygiene"; and, as the legislation of the present Session has imposed important sanitary duties on these officers, this branch of medical knowledge will doubtless receive from them more careful attention than they may have hitherto bestowed upon it.

MEDICAL NEWS.

University of London.—1874. First M.B. Examination Pass List. Entire Examination.

First Division.

Burton, Samuel Herbert, University College
Carrington, Robert Edmund, Guy's Hospital
Keetley, Charles Robert Bell, St. Bartholomew's Hospital
Tirard, Nestor Isidore Charles, King's College

Second Division.

Blake, Henry, St. George's Hospital
Fox, Thomas Colcott, University College
Freund, Percy Herbert Edmund, St. Thomas's Hospital
Giles, George Michael James, St. Mary's Hospital
Godfrey, Charles Walter, University College
Gosling, Charles Edward, Queen's College, Birmingham, and St. Bartholomew's
Hunt, Joseph William, University College
Joule, John Samuel, Anderson's University, and St. Bartholomew's Hospital
Kidd, Walter Aubrey, Guy's Hospital
Pinnell, Thomas Mark, University College
Rossiter, George Frederick, St. Thomas's Hospital
Sankey, Herbert Richard Octavius, University College
Snell, Edward Arthur, King's College
Symonds, Charters James, Guy's Hospital
Trafford, John Foster, University College

Excluding Physiology.

First Division.

Champneys, Henry Laurence, Guy's Hospital

Second Division.

Baker, Albert De Winter, Guy's Hospital
Bigger, Samuel Ferguson, Liverpool School of Medicine
Cross, Francis Richardson, King's College
Cuming, Charles Henry, University College
Finch, Alfred, Guy's Hospital
Pickup, William James, University College
Ryley, James, University College

Physiology only.

First Division.

Whitelegge, Benjamin Arthur, University College

Second Division.

Battlebury, Richard Legg, King's College
Cooke, Edward Marriott, King's College
Duke, Herbert, Guy's Hospital
Evans, Charles Walter, University College
Ferrier, John Christian, Guy's Hospital
Harrison, Charles Edward, St. Bartholomew's Hospital
Landon, Arthur Jermyn, St. Bartholomew's Hospital
Langley, John Geoffrey, University College
Taunton, William Whitchurch (B.Sc.), University College

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM GENERAL DISPENSARY—Additional Resident Surgeon; £130 per annum, rising to £150, £30 per annum for cab-hire, furnished rooms, etc. Applications, 29th instant, to A. Forrest, Secretary.

DURHAM UNIVERSITY COLLEGES OF MEDICINE and PHYSICAL SCIENCE, Newcastle-upon-Tyne—Professor of Biology combined with Physiology: £450 per annum, and a portion of fees. Applications, 15th instant, to T. Wood Bunning, Secretary to College of Physical Science.

DURSLEY UNION, Gloucestershire—Medical Officer and Public Vaccinator for No. 3 District: £80 per annum, and fees. Applications, 26th instant, to George Wenden, Clerk.

CASTLE WARD UNION, Northumberland—Medical Officer to the Workhouse: £30 per annum—Medical Officer and Public Vaccinator for the Ponteland District: £20 per annum, and fees. Applications, 22nd instant, to Thomas Arkle, Highlaws, Morpeth.

GARSTANG RURAL SANITARY DISTRICT—Medical Officer of Health: 21s. per case, and 6d. per mile each way. Applications, 27th instant, to Thomas Noble, Clerk.

GREAT NORTHERN HOSPITAL—House-Surgeon: £63 per annum, board and lodging. Applications, 28th instant.—Physician-Surgeon: Applications, 15th September, to A. Phillips, Secretary.

HULL and SCULCOATS DISPENSARY—House-Surgeon.

HULL GENERAL INFIRMARY—Resident Assistant Surgeon. Vacancy, 1st September. Applications to W. Shepherdson, Secretary.

INVERNESS DISTRICT ASYLUM—Assistant Medical Officer: £70 per ann., apartments, etc. Applications, 19th instant, to Dr. Aitken, Medical Superintendent.

LUNESDALE UNION, Lancashire—Medical Officers for Hornby No. 1 District and the Workhouse.

MANCHESTER GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN—Assistant Physician: £300 per annum. Applications, 22nd instant, to the Chairman.

MANCHESTER ROYAL INFIRMARY—House Physician: £21 for six months, board, and residence. Applications, 22nd instant, to the Chairman of the Weekly Board.

NAAS UNION, co. Kildare—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Blesinton and Ballymore-Eustace Dispensary District: £100 per annum, and fees. Applications, 22nd instant, to Wm. G. Merrey, Honorary Secretary, Blesinton.

NEW ROSS UNION, co. Wexford—Medical Officer for the Templeudigan Dispensary District: £50 per annum. Applications, 20th instant, to Edward Havanagh, Hon. Sec., Ballygalvert, Ballywilliam, New Ross.

NEWCASTLE-ON-TYNE INFIRMARY—Physician. Applications, 3rd September, to R. Y. Green, Secretary.

NORWICH LUNATIC ASYLUM—Resident Medical Superintendent: £150 per annum, furnished residence, maintenance, etc. Applications, 15th instant, to the Committee of Visitors.

NORTH RIDING INFIRMARY, Middlesbrough—Three Honorary Medical Officers. Applications, 20th inst., to the House Committee.

NOTTINGHAM UNION—Medical Officer for No. 1 District: £120 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Resident Medical Officer. Applications, 7th September, to A. Boodle, Secretary.

QUEEN'S HOSPITAL, Birmingham—Dispenser: £100 per annum. Applications, 17th instant, to the Secretary.

ROYAL CORNWALL INFIRMARY, Truro—Physician.

ROYAL FREE HOSPITAL—Junior House-Surgeon. Applications, 19th instant, to James S. Blyth, Secretary.

SHEPTON MALLET UNION—Medical Officers for No. 3 District, which is to be divided into three.

SOUTHAMPTONSHIRE LUNATIC ASYLUM, Knowle—Junior Assistant Medical Officer: £80 per annum, increasing to £100, board and lodging. Applications, 15th instant, to Dr. Manley.

SOUTH SHIELDS (Borough)—Medical Officer of Health: £300 per annum or three years.

SOUTH SHIELDS URBAN SANITARY DISTRICT—Medical Officer of Health: £300 per annum for three years. Applications, 27th instant, to J. M. Moore, Clerk to the Authority.

STOURBRIDGE DISPENSARY—House-Surgeon and Secretary: £120 per annum, furnished rooms, and occasional allowances for Dispenser and horse-hire. Applications, 18th instant, to J. B. Shepherd, Honorary Secretary.

STROMNESS, Orkney—Parochial Medical Officer. Applications, 20th instant, to the Chairman of the Parochial Board.

ST. THOMAS UNION, Exeter—Medical Officer for the Topsham District: £54 19s. per annum.

WEST LONDON HOSPITAL, Hammersmith—Junior Physician. Applications, 21st instant, to T. Alexander, Secretary and Superintendent.

WEST NORFOLK and LYNN HOSPITAL—Resident Medical Officer and Secretary: £100 per annum, board, lodging, etc. Applications, 22nd instant, to the Weekly Board.

WEST WARD UNION—Medical Officer and Public Vaccinator for the Patterdale District: £10 per annum, and fees. Applications, 2nd September, to the Chairman, Hackthorpe.

YORK LUNATIC ASYLUM—Medical Superintendent.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

JAY.—On August 12th, at Chippenham, Wilts, the wife of *Henry M. Jay, M.R.C.P., F.R.C.S., of a daughter.

MARRIAGES.

LAWTON—SYMM.—On August 5th, at the Wesleyan Chapel, Oxford, by the Rev. Richard Waddy Moss, Joseph Lawton, Esq., L.R.C.P., Surgeon, Torquay, to Hannah Elizabeth, only daughter of J. R. Symm, Esq., Oxford. No cards.

WRIGHT—PASSAVANT.—On the 5th instant, at Mill Hill Chapel, Leeds, by the Rev. Charles Wicksteed, of St. Asaph, Charles James Wright, Esq., M.R.C.S., L.S.A., Park Square, Leeds, to Emily, eldest daughter of P. W. Passavant, Esq., De la Haye House, Leeds.

DEATHS.

ATKINSON, Robert, L.S.A., on August 1st, aged 78, for twenty-six years House-Surgeon to the Hull and Sculcoates Dispensary, Hull.

*GREENE, George, M.D.Edin., on August 4th, aged 35, at Auckland Terrace, Ramsey, Isle of Man, deeply regretted.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
FRIDAY.........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

Q. E. D.—A Medical Assistant should hand over to his master the fees he receives for giving evidence in a Court of Justice.

WANT of space compels us to postpone until next week many important communications.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Aug. 10th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Rumsey, Cheltenham; Dr. J. Marion Sims, London; Dr. Eade, Norwich; Dr. J. Russell Reynolds, London; Dr. E. Copeman, Norwich; Dr. J. Matthews Duncan, Edinburgh; Dr. Fleetwood Churchill, Dublin; Dr. A. B. Steele, Liverpool; Mr. Wm. Eassie, London; Dr. James Edmunds, London; Our Edinburgh Correspondent; Dr. J. Fayrer, London; M.D.; The Dean of the Westminster Hospital; Dr. J. W. Moore, Dublin; Dr. Wm. Hope, London; Our Glasgow Correspondent; Dr. Franklin Parsons, Goole; Dr. Cottew, Holloway; Mr. Howard Orfeur, Loddon; Dr. Lewis, Llanelly; Dr. Thomas Britton, Halifax; Our Paris Correspondent; Mr. W. H. Michael, London; Mr. Marsh Jackson, Smethwick; Mr. J. Reid, Norwich; Mr. Green, Ramsey; Dr. E. T. Wilson, Cheltenham; A Correspondent; Dr. Drysdale, London; Dr. Edis, London; Our Constantinople Correspondent; Dr. Corfield, London; Dr. Bradbury, Cambridge; Dr. George Johnson, London; A. M.; Dr. J. Milner Fothergill, London; Dr. J. Ashburton Thompson, London; Mr. Medcalf, Hove; Dr. Tilt, London; Dr. J. Crichton Browne, Wakefield; Mr. C. H. Robinson, Dublin; Dr. Browne, Aldborough; An Associate; Mr. Alfred Godrich, London; Dr. Murchison, Nairn; Our Eastern Correspondent; Dr. Douglas Powell, London; Mr. Wm. Berry, Wigan; The Military Secretary, India Office; Dr. Farquharson, London; Mr. Eastes, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Mr. W. G. Davis, Bath; Dr. McCarthy, Linfield; Dr. Spratly, Rock Ferry; Mr. Patrick Downey, Loughborough; Our Dublin Correspondent; Mr. W. Wagstaffe, London; Mr. Durham, Dublin; Dr. Boyd Mushet, New Brighton; Mr. Garland, Cambridge; Mr. Croft, Norwich; An Associate; Mr. E. Lund, Manchester; Mr. Skrimshire, Holt; Kappa; Mr. E. H. Perrin, Bristol; Mr. George Sampson Elliston, Ipswich; Dr. Joseph Coats, Glasgow: Dr. M. Moncton; Mr. Jas. Robinson; Dr. C. Moss Campbell, Staunton Dr. Fox, Keswick; Mr. E. G. Whittle, Brighton; etc.

REPORT OF A CASE
OF
RECOVERY FROM APPARENT DEATH INDUCED BY THE INHALATION OF CHLOROFORM:

A CASE DESCRIBED TO SHOW THE THERAPEUTIC VALUE OF INVERSION OF THE BODY WHEN THERE IS SYNCOPE FROM CEREBRAL ANÆMIA; AND TO AID IN THE ELUCIDATION OF CHRONIC CHLOROFORM POISONING.*

By SIR JOHN ROSE CORMACK,
Chevalier of the Legion of Honour; M.D.Edin. and Paris; F.R.S.E.; Fellow of the Royal Colleges of Physicians of London and Edinburgh; Physician to the Hertford British Hospital, Paris; etc.

J. A., a lady's maid, aged 27, was admitted, under my care, to the Hertford British Hospital on January 30th, 1874. She was very hysterical, weak, and anæmic. She had chronic disease of the hip-joint and necrosis of the femur. On the day of admission, a small piece of dead bone was removed. On February 25th, deep incisions were made and drainage-tubes introduced. These measures were resorted to in consequence of intense pain in the hip, thigh, and leg, tumefaction and tension of the whole right gluteal region, and the supposed existence of deep-seated matter under the gluteal fascia. From its being necessary to place the patient almost on her face, I operated without putting her under the influence of chloroform. The operation occasioned great pain, which lasted for some hours, though opiates were freely administered, and large warm poultices applied to the hip and thigh. During the evening, she had two hysterical attacks, characterised by excitement and weeping. From that date, to May 25th, the patient's general state improved very much. The discharge by the tubes was at times profuse, and at times moderate. The internal medication consisted chiefly in the use of the syrup of the lacto-phosphate of iron, and short occasional courses of the compound tincture of cinchona and the compound tincture of valerian. She had a liberal diet, embracing meat and wine.

On May 25th, I resolved to put her under the influence of chloroform, so as to be able to make, without torture to the patient, a thorough exploration, and remove a loose piece of bone which could be felt by the probe. At 10.30 A.M. on that day, all was ready for the operation. The patient was placed on her left side, recumbent, and with the face quite free. The day was hot, but a light breeze was playing. The patient lay before, and within three feet of, a large casement window, which could, if a stream of fresh air were required, be thrown wide open in an instant. The necessary instruments and appliances for the operation, and for the possible emergencies of chloroformisation, were ready; and all arrangements were completed, without alarming or exciting the patient. I spoke some cheerful words to her, to which she pleasantly responded, expressing great thankfulness that she was to be allowed to inhale chloroform. I looked at my watch, and, calculating that ten or fifteen minutes would elapse before she was ready for the knife, I asked Mr. Vines (then our clinical assistant) to begin the administration, and to proceed slowly in our usual way. This he at once did, by placing near the patient's mouth a napkin folded as a hollow cone, and having within it a small quantity of chloroform. There was a free space of some inches between the towel and the lips of the patient. Within about two minutes, during which I had my watch in my eye and my hand on the pulse, the patient had passed into a calm sleep, without having spoken a word, moved a limb, or twitched a feature. I pinched the skin of the forearm, which caused her to move the arm a little, but did not occasion any other manifestation on her part. The inhalation of chloroform was now nearly suspended; that is to say, the towel was so far removed from the mouth, that the inhaled chloroform vapour must have been so diluted with atmospheric air, as to augment but slightly the existing anæsthesia. I kept my hand on the patient's pulse for two minutes more; she was then profoundly chloroformed, being quite insensible to pinching. The breathing was natural: the pulse, though slow, was quite regular, and of fair strength. At this moment, that is to say, at the end of four minutes from the commencement of the inhalation of chloroform, my colleague Dr. Herbert joined me. Just as he entered, I made a free incision, saying almost simultaneously to Dr. Herbert, "I think she is too much under the influence of chloroform". Glancing at her, and feeling her pulse, he replied: "Yes; but the pulse and breathing are all right." No more chloroform was given. Whilst I proceeded with the operation to its completion, the window was thrown open, and Dr. Herbert tried to bring back the patient to consciousness by flapping her face and chest with a wet towel, and speaking to her. This state of matters continued for about ten minutes; during that period, not the slightest signs of consciousness were shown. I had just completed the operation, when Dr. Herbert announced an alarming irregularity and sinking of the pulse. This occurred about twenty minutes from the time at which the administration of the chloroform was commenced. At this crisis, and throughout the whole duration of the unconsciousness, except once for a few minutes, the lips were red, and the face had neither a ghastly nor a pale aspect. This we all remarked, and spoke of at the time. The pulse became more and more irregular and feeble; death seemed imminent. On the proposal of Dr. Herbert, the body of the patient was inverted; that is to say, the heels were held upright and the head downright. (This is sometimes called Nélaton's method. It has been very well described and explained by Dr. Charles Campbell of Paris, in a pamphlet published in Paris during this year, entitled: *Etude sur la Tolérance Anesthésique Obstétricale.* At p. 34 of that pamphlet, a case is given in which a woman was saved by complete inversion. This case occurred on Nov. 19, 1861. Dr. Marion Sims was operating for vesico-vaginal fistula. MM. Nélaton, Beylard, Johnston, and Alan Herbert, were present.) A very striking improvement in the pulse was immediately perceived. The patient was maintained in the inverted position for about four or five minutes; the pulse had then so much improved, that we hoped danger was past. Accordingly, we replaced the woman in the horizontal position, applying at the same time turpentine stupes to the legs, and injecting into the bowel an ounce of brandy beat up with an egg and a small quantity of beef-tea. This injection was retained. The amelioration brought about by the inversion continued, and seemed even to be increasing for five or ten minutes, when it began to diminish gradually, notwithstanding the diligent use of various resuscitory measures, such as placing mustard poultices on various parts of the body in succession, the application of ammonia to the nostrils, and tickling them with a feather. More than once, Dr. Herbert passed his finger into the back of the throat, with a view to draw forward the glottis, should that have been necessary. Just before the inversion of the patient, I transfixed her tongue with a threaded needle, which enabled us, during the whole of the subsequent treatment, to keep the tongue out of the mouth, and the mouth open. Matters became rapidly worse; again, death seemed to be imminent. We repeated the inversion; it immediately produced an equally favourable result as on its first trial. Indeed, the second yielded even more conspicuously beneficial results than the first trial; and, for this reason, that the condition of the patient was worse immediately before the second than immediately before the first inversion. Immediately before the second inversion, the irregularity and sinking of the pulse had been succeeded by a great diminution in the frequency and force of the respiration; prior to the first inversion, it was very much less affected.

The second inversion, like the first, was continued for about ten minutes. The patient was then replaced in the horizontal position, and the legs were treated as before with turpentine stupes. A turpentine enema was administered: it was retained. The face was, at short intervals, sprinkled with water refrigerated by ice. This was being done about twelve o'clock, when she opened her hitherto closed eyes and looked at those around her with a stupid bewildered gaze. When asked whether she felt any pain, she answered "Yes", with a feeble but distinct voice. When I asked her, where she felt pain, she looked at me steadily, pointed to her chest, and pronounced the word "Weight". At this time, she could not be got to answer any other questions; she did not say one word in reply to many questions addressed to her; but when spoken to, stared at the person who spoke. For a little time, she decidedly improved. When irritants were applied, the pulse would rise and temporarily become firm and almost full. At half past twelve, she answered several questions, the substance of her replies being to the effect that she was dying, and was suffering less from pain than from a great weight at the chest. She recognised me and one of the nurses, addressing us by our names. She stared at Dr. Herbert, Mr. Vines, and others present with whom she was well acquainted, when she was asked to name them; and said "I know none of them". This return of comparative well-being and consciousness lasted for a very short time. Dr. Herbert had left me to attend to the out-patients, we both believing that all was now likely to go on well. I immediately recalled him in consequence of a relapse. She suddenly relapsed into unconsciousness, the pulse fluttered and fell, and the breathing became very weak, very slow, and occasionally jerking. At the same time, and for the first time since the terrible scene began, her lips and cheeks became deadly pale; for several minutes she seemed on the very verge of death, and for a minute she seemed to be dead, so long an interval occurred between her inspirations. Artificial respiration was employed by means of abdominal compression and movement of the arms. Under this treatment, the pulse (which had become imperceptible) returned; but for at least half-an-hour, whenever the artificial respiration was relinquished, the breathing showed an alarming tendency to fail. At this time, the danger seemed even more urgent than it had yet been; for never yet had the respiratory function been so profoundly compromised. Without much hope of permanent benefit, she was inverted; and again with the happiest results. A little later, vomiting came on, which was very difficult; but it helped much to bring back consciousness.

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* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

At half-past one o'clock, Dr. Herbert and I arranged that I might leave, being required elsewhere; and that I should return at four o'clock, he remaining, if necessary, till my return. I came back at four; and found Mr. Vines alone in charge, Dr. Herbert having left at half-past three, in consequence of a great amelioration in the symptoms. After I left, however, for nearly an hour there had been several considerable relapses. The irregularity and sinking of pulse were on one of those occasions so great and sudden as to occasion for a few minutes some dread of a fatal issue. On my return, at four o'clock, I found the patient in a state of drowsy semi-consciousness. She evidently did not know where she was, or who the persons were by whom she was surrounded. Her lips were red, and her pulse and breathing almost normal. Slight partial relapses of irregularity and weakness of pulse recurred whilst I remained at the hospital, from 4 to 6 P.M. During that time, she took some beef-tea, swallowing easily.

At 10 P.M., Mr. Vines sent me a good account of the patient, so that I did not return to see her till nine next morning, when Dr. Herbert and I saw her together. She was then heavy and drowsy, though able to answer questions collectedly, though not always correctly; and, according to her usual mode of expression, when asked how she felt, she said that she had no headache, but pain and a sense of great weight in the region of the heart. Her chief complaint was of a distressing pain in the muscles of the shoulders and arms; the result, no doubt, of the movements we had made in employing artificial respiration. She said nothing of feeling pain in the seat of the operation or neighbouring parts. Putting her hand to her tongue, where I had transfixed it with the needle, she said, "there is something wrong with my tongue". Next day, she was still in a state of semi-consciousness. This state went on gradually diminishing in intensity; but three days and three nights had elapsed before it had entirely passed away. At the end of that period, she had resumed her former ways in respect of food, sleep, and intelligence.

The chronic and cataleptiform character of this case of poisoning by chloroform inhalation constitute two of its most remarkable features. Several cases of a somewhat similar character have been described by British and foreign authors. My case tends to confirm the statement of Berend, Casper, and others, that chloroform inhalation may prove fatal after the lapse of many days. After giving an analysis of cases, Casper says: "It can no longer be doubted that there is such a thing as chronic poisoning by chloroform; that is, that the drug, when it does kill, does not always kill instantaneously, but that hours, days, or even weeks, may elapse during which the person anæsthetised remains continuously under the influence of the poison, to which he at length succumbs. This doctrine is evidently of medico-legal importance."* One of Casper's cases relates to a woman who "was chloroformed on the 14th of December, previous to the amputation of her left leg, on account of a comminuted fracture, and who, up to the hour of her death, on the 23rd of the same month, had never completely recovered her senses, lost during the inhalation".

As I stated at the commencement of the narrative which I have laid before you, my patient was a weak, anæmic, and hysterical woman. In such a patient as J. A., it may be truly said, that other causes besides the inhalation of chloroform might, and often do, induce a cataleptic state. But it is also true that in her case, along with the catalepsy, there was in operation an influence due to the anæsthetic vapour. Minutely and well observed cases of a similar character require to be collected and collated. As yet, comparatively few have been published, from which it may be concluded that comparatively few have occurred. I have fully and faithfully recorded all that was seen and done in the case which occurred on May 25th at the Hertford British Hospital, so that my report may contribute to the elucidation of the subject of chronic chloroform-poisoning at any future time, and by any future truth-seeking inquirer.

One of my principal objects in bringing this case before the British Medical Association, is to set forth facts which show, or seem to show, the therapeutic value of inverting the body when there is syncope from cerebral anæmia. Dr. Herbert, Mr. Vines, and I, were all, at the time, convinced that the inversion produced a powerful effect in restoring the contractions of the heart. I feel certain that the practice proved decidedly beneficial in our hands; and that it is a practice which ought to be resorted to in similar cases. I am, however, also convinced that all the various restorative measures which we employed contributed to bring about recovery. It is impossible to apportion the share of good which was accomplished by each of the means employed. No one can say how far the inversion of the body was the means of restoring life, seeing that artificial respiration was employed—that most wonderful agency in producing resuscitation of the apparently dead. Numerous cases are recorded in which, by means of keeping the patients warm and in the horizontal position, artificial respiration has saved them. Nevertheless, my case showed that, while artificial respiration was of signal benefit when the body was horizontal, inversion for four or five minutes—at intervals—was an useful addition to ordinary resuscitative measures. In the case so graphically described by Dr. Charles Campbell, the duration of inversion was fifteen minutes—a period, I think, unnecessarily, and perhaps even dangerously, long. We all know the benefit of the horizontal position in cases of ordinary fainting. I am far from recommending that, in cases of chloroform-fainting, the inverted position ought to be preferred to the horizontal. I only recommend it to be used, as in the case I have described, for short periods—say for four or five minutes or less—at intervals—and in conjunction with the persevering use of artificial breathing, and the other common measures of recovery and precaution.

I have received the following interesting and valuable letter from Dr. Benjamin W. Richardson. It is published with his permission.

12, Hinde Street, August 11th, 1874.

MY DEAR CORMACK,—I have read with deep interest your paper on Chronic Poisoning by Chloroform; and I have also read the case so graphically described in Dr. Campbell's French pamphlet, which you were so kind as to send to me. Both cases call fairly for many observations, but I will now deal mainly with yours.

Your case is very rare, but not altogether unique. In one case where Snow administered chloroform to a young woman in King's College Hospital (see my edition of Snow *On Chloroform*, p. 105), the patient remained unconscious for three days, but recovered without ill effects. In another case, a medical man administered chloroform to a young woman in domestic service (see the same work, pp. 105-6) for the extraction of a tooth. In a few minutes, she burst out into a fit of laughter, and then subsided into unconsciousness. Various measures, including artificial respiration, were used to restore her, from the impression that she was still under the influence of chloroform. Thirty-six hours after the inhalation, Snow was sent for. He found the patient apparently in a profound state of insensibility, and breathing very feebly. Some valerian was, after a time, administered to this patient, and in a few hours the unconsciousness passed away.

I attended a case myself in which similar symptoms followed upon the inhalation, not of chloroform, but of nitrous oxide gas. The gas was administered to this patient, a woman in the prime of life, in order to allow a tooth to be extracted. As sometimes happens from the gas, there was acute and severe convulsive movement during the narcotism, and the woman recovered imperfectly. She succeeded, nevertheless, in going some four hundred yards to reach the Metropolitan underground line, and got into a railway-carriage. Soon afterwards, while travelling, she fell back into unconsciousness, with faintness, extreme pallor, and active convulsion. At first, it was feared that she would die; but she was taken to her home, where she was put to bed semiconscious. The following day, I was summoned to see her. She was still nearly unconscious, and the most I could get her to do was to put out her tongue. Her eye was not sensible when touched, and her pupils were widely dilated. Her pulse was irregular and weak, and her breathing very feeble. I learned that she had been in this state for twenty-four hours, but that at times she was intensely convulsed. I noticed also a fœtor of a most peculiar kind from the breath—a fœtor due to some substance having the odour of the organic sulphur compound called sulphur alcohol or mercaptan. She had vomited several times, and had taken no food. These symptoms being looked upon as hysterical, leaning towards catalepsy, she was treated as for hysteria. It was six days before the symptoms abated, and at intervals there were recurrent attacks of convulsion. The symptoms throughout caused much anxiety, and recovery was not perfect for many weeks.

Nature of these Cases.—I agree with you distinctly that these cases are all types of hysteria, in what may be called the cataleptic phase of the hysteric disease. As yet, they have only been known to occur in the female subject. I do not think it correct to maintain that the persistent unconsciousness is due to the continued action of the narcotic agent administered to produce anæsthesia. There is no evidence to show that chloroform remains in the body even an hour after its administration has ceased; and in the cases I have related, in which nitrous oxide gas was used, it cannot be presumed for a moment that the gas was held within the organism, and was sustaining the unconsciousness for several days. The view I would myself offer is one which I ventured to submit in my report* to the British Association for the Advancement of Science at the Birmingham meeting in 1865; viz., that, during certain hysteric states, there is *formed* in the animal body itself an organic compound which, like certain of the amyl and sulphur compounds, produces, after the manner of a poison, the cataleptic condition. If this be true, it is easily understood how the administration of a volatile narcotic may give a start to the action of the narcotic product already present in the body, and that the effect may be sustained until the producing agent is eliminated by the excretions.

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* *Handbook of the Practice of Forensic Medicine.* By J. L. Casper. Translation of the New Sydenham Society, by Dr. G. W. Balfour. London: 1862.—See page 296 of vol. ii.

The particular Mode of Treatment by Inversion of the Body.—The mode of treatment followed out in your case recalls to my mind certain experiments, some of which you saw me perform in 1854, and which are published in the ASSOCIATION MEDICAL JOURNAL of August 18th, of that year. Those experiments, as you will remember, were conducted in order to ascertain the effect of posture of the body on the action of the heart after anæsthesia and loss of blood. I had observed that, when the butcher is killing a calf, the action of the heart of the animal is systematically maintained by him, though hæmorrhage is still going on, by the process of suspending the animal for a time with its head downwards, afterwards laying it horizontally, and again suspending it until the body is completely emptied of blood. The fact led me to experiment, in order to learn the effect on the heart of different positions of the body. The details of the experiments will be found in the number of the ASSOCIATION JOURNAL above referred to, on pages 734 and 5; but the gist of them is, that the animals having been made to sleep, by inhalation of the smoke of the lycoperdon giganteum, until respiration had ceased, artificial respiration was established, the thorax was laid open, and the effect of position on the blood within the heart was carefully observed. It was thus found that, when the body had been suspended with the head upwards, until the auricle and ventricle of the right side had ceased to act from deficiency of blood in them, these parts could at once be refilled by the simple plan of laying down the body horizontally; that the right heart, so refilled, would recommence to contract vigorously; that if, at the same time, artificial respiration were sustained, the blood would make the pulmonic circuit, and that the left side would also recommence to act on receiving a new supply of blood from the lungs. These experiments bear immediately upon the point of practice followed in your case, and in that of Dr. Campbell. They show that if, by the simple plan of inversion, combined with artificial respiration, a current of blood could be induced to move over the pulmonic circuit, recovery in many otherwise hopeless cases would be accomplished. This is a fact I have long urged, especially before the London meeting of the Association in 1862; and I have made many attempts to render the plan practicable, by what I have called *artificial circulation.* I have introduced a silver tube, attached to a small pump, into the right ventricle, and have tried to pump up blood from the cavæ, and force it, by a back stroke, over the lungs. I have also tried to draw the blood over the lung into the arterial channels by aspiration, but I could never succeed in so simplifying either of these methods as to render them practical. The question, therefore, arises: Will the simple method you describe meet the difficulty?

To try to solve this question, I performed yesterday the following experiment. A large strong rabbit was put to sleep with chloroform, and the administration was continued until the animal had ceased to breathe. Tracheotomy was immediately performed: a tube connected with the double acting bellows was inserted into the trachea, and artificial respiration was set up. At the same time, the animal was suspended by its hind legs, with the head downwards. The artificial respiration was steadily carried out, in the most systematic manner, for fifteen minutes, but there was no sign of restoration of the circulation. The animal being still suspended, I next laid open the thorax, and exposed the lungs and heart. The lungs were discovered to be responding perfectly to the action of the double bellows; but all parts of the heart were at rest, except the left auricle: this, charged with red arterial blood, was contracting; the other parts were so dead that they failed to respond to the intermittent galvanic current, although to the same current all the voluntary muscles responded vigorously, and continued to do so for an hour. I observed that the right cavities of the heart, the auricle, and ventricle, were tense with blood. I therefore let the animal down to the horizontal position; and when by this means the pressure of the blood was relieved, the auricle, and afterwards the ventricle, made a few feeble contractions under stimulation. No sufficient force was, however, exerted by the heart to make the blood traverse the pulmonic circuit; and, I may say, there was not at any time an indication of recovery.

How far the effect of inverting the body was useful in the two cases you have named, it is difficult to say, because in both artificial respiration was employed, and this in itself is so remarkable a means of restoration, that the effects of it have to be seen to be realised. By artificial respiration, I have resuscitated an animal *seven minutes* after its respiration had been stopped by the inhalation of chloroform; and there are cases in the human subject in which, after complete failure of the respiratory power from chloroform, artificial respiration has restored life, the body being retained in the horizontal position. It would be good practice, nevertheless, after the experience of the cases you have related, to add inversion or partial inversion of the body to the process of artificial respiration. The inversion should not be long sustained; if it be, the heart might be paralysed on its right side from the pressure of the blood, but it should be alternated by return to the horizontal line, the artificial breathing being zealously sustained during the whole time.

In certain cases, where the right heart is demanding the stimulus of blood to enable it to contract with effect, the required supply of blood may thus be obtained from the veins below the heart, and the pulmonic circulation may be restored—a result, if it be instantly resorted to, that will almost of a certainty render artificial respiration successful in restoring life when a volatile narcotic has caused the catastrophe.

I remain, dear Cormack, faithfully yours,
B. W. RICHARDSON.

To Sir John Rose Cormack, M.D., F.R.C.P., F.R.S.E.

ON NÉLATON'S METHOD OF RESUSCITATION FROM CHLOROFORM NARCOSIS.*

By J. MARION SIMS, M.D.,
Surgeon to the Woman's Hospital of the State of New York, etc.

DR. CHARLES JAMES CAMPBELL, the distinguished accoucheur of Paris, has recently written two papers on anæsthesia in obstetrics,† in which he ably sustains the views long taught by Nélaton, that death from chloroform is due to syncope or cerebral anæmia. And amongst other strong arguments to prove his position, he gave a graphic description of a case of chloroform narcosis, which occurred in my practice in Paris, where M. Nélaton, by his method, unquestionably saved the life of the patient. She was young, beautiful, and accomplished, and belonged to one of the oldest and best families in France. Married at twenty, she gave birth to her first child a year afterwards. The head was enormous (hydrocephalic), impacted in the pelvis nearly 24 hours, and the delivery of a dead child was ultimately accomplished with instruments. Dr. Bouchacour of Lyons was called in consultation, and applied the forceps. In a week afterwards, the urine began to dribble away, and in a fortnight an immense slough was thrown off. The case, surgically considered, was one of the most interesting I ever saw, and the operation was one of the most difficult I ever performed on any one in her station in life. The base of the bladder was destroyed, and the fundus fell through the fistulous opening; it was therefore inverted, and protruded between the labia majora as a herniary mass of the size of an apricot, its external covering being the internal or lining membrane of the bladder, which was of a deep vermillion red colour. The vaginal portion of the cervix uteri and the posterior cul-de-sac were destroyed; and by the reparative process, the cervix and the posterior wall of the vagina were blended into one common cicatricial mass, which was firm, inelastic, and immovable. The case appeared desperate, and M. Nélaton had pronounced it incurable. A preparatory operation was necessary, viz., to open the cervix uteri, by dissecting it from the posterior wall of the vagina, and thus to reconstitute the canal of the vagina up to the canal of the cervix; and by a subsequent operation, to draw forward the flap thus formed, secure it to the neck of the bladder anteriorly, and thereby close the fistula. The first, or preparatory operation, was performed at the country house of the family near Dijon, on November 3rd, 1861, Dr. Dugast of Dijon assisting, and giving chloroform. The second, or operation for the radical cure, was performed on the 19th of the month at St. Germain, about an hour's distance from Paris by rail. M. Nélaton, Dr. Campbell, Dr. Beylard, Dr. Johnston, and Mr., now Dr., Alan Herbert, were present. I seldom give an anæsthetic in private practice for operation on the walls of the vagina, as the pain is generally not sufficient to call for it. But in this case, as the slightest touch was unbearable, an anæsthetic was indispensable. Dr. Campbell was selected by the family, as well as by M. Nélaton and myself, to administer the chloroform, especially as he was in the daily habit of giving it in his large obstetrical practice, and we all had entire confidence in his caution, skill, and judgment. The patient was soon anæsthetised. The operation was begun at 10 A.M., and I thought it would require about an hour to finish it.

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* Report on the Physiological Action of the Amyl Compounds.—In volume of the *Transactions* of the British Association, 1865, pp. 272-280).

* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

† 1. Mémoire sur l'Anesthésie Obstétricale; 2. Etude sur la Tolérance Anesthésique Obstétricale, par le Dr. Charles James Campbell, Ancien Interne de la Maternité de Paris, Ancien Chef de Clinique Obstétricale de la Faculté de Paris. G. Masson. 1874.

Many years ago I imbibed the convictions of my countrymen against chloroform in general surgery, and have always used ether in preference, never feeling the least dread of danger from it under any circumstances. It is otherwise with chloroform, and in this particular case I felt the greatest anxiety, frequently stopping during the operation to ask Dr. Campbell if all was going on well with the patient. At the end of forty minutes the sutures (twelve or thirteen) were all placed, and ready to be secured, and I was secretly congratulating myself that the operation would be finished in a few minutes more, when all at once I discovered an unusual bluish livid appearance of the vagina, as if the blood were stagnant, and I called Dr. Johnston's attention to it. As this lividity seemed to increase, I felt rather uneasy about it, and I asked Dr. Campbell if all was right with the pulse. He replied, "All right, go on." Scarcely were these words uttered, when he suddenly cried out, "Stop! stop! No pulse, no breathing"; and, looking to M. Nélaton, he said, "Tête en bas, n'est-ce pas?" Nélaton replied, "Certainly; there is nothing else to do." Immediately the body was inverted, the head hanging down, while the heels were raised high in the air by Dr. Johnston, the legs resting, one on each of his shoulders. Dr. Campbell supported the thorax. Mr. Herbert was sent to an adjoining room for a spoon, with the handle of which the jaws were held open, and I handed M. Nélaton a tenaculum, which he hooked into the tongue, and gave in charge to Mr. Herbert; while to Dr. Beylard was assigned the duty of making efforts at artificial respiration, by pressure alternately on the thorax and abdomen. M. Nélaton ordered and overlooked every movement, while I stood aloof and watched the proceedings with, of course, the most intense anxiety. They held the patient in this inverted position for a long time, before there was any manifestation of returning life. Dr. Campbell, in his report, says it was fifteen minutes, and that it seemed an age. My notes of the case, written a few hours afterwards, make it twenty minutes. Be this as it may, the time was so long that I thought it useless to make any further efforts, and I said, "Gentlemen, she is certainly dead, and you might as well let her alone." But the great and good Nélaton never lost hope, and by his quiet, cool, brave manner, he seemed to infuse his spirit into his aids. At last there was a feeble inspiration, and after a long time another, and by and bye another; and then the breathing became pretty regular, and Dr. Campbell said, "The pulse returns, thank God; she will soon be all right again." Dr. Beylard, who always sees the cheerful side of everything in life, was disposed to laugh at the fear I manifested for the safety of our patient. I must confess that never before or since have I felt such a grave responsibility. When the pulse and respiration were well re-established, M. Nélaton ordered the patient to be laid on the table. This was done gently. But what was our horror, when, at the moment the body was placed horizontally, the pulse and breathing instantly ceased. Quick as thought, the body was again inverted, the head downwards and the feet over Dr. Johnston's shoulders, and the same manœuvres as before were put in execution. Dr. Campbell thinks it did not take such a long time to re-establish the action of the lungs and heart as in the first instance. It may have lacked a few seconds of the time; but it seemed to me to be quite as long. For the same tedious, painful, protracted, and anxious efforts were made as before; and she seemed, if possible, more dead than before; but, thanks to the brave men who had her in charge, feeble signs of returning life eventually made their appearance. Respiration was at first irregular, and at long intervals; soon it became more regular, and the pulse could then be counted; but it was very feeble, and would intermit. I began again to be hopeful, and even dared to think that at last there was an end of this dreadful suspense, when they laid her horizontally on the table again, saying, "She is all right this time". To witness two such painful scenes of danger to a young and valuable life, and to experience such agony of anxiety, produced a tension of heart and mind and soul that cannot be imagined. What, then, must have been our dismay, our feeling of despair when, incredible as it may seem, the moment the body was laid in the horizontal position again, the respiration ceased a third time, the pulse was gone, and she looked the perfect picture of death? Then I gave up all as lost; for I thought that the blood was so poisoned, so charged with chloroform, that it was no longer able to sustain life. But Nélaton, and Campbell, and Johnston, and Beylard, and Herbert, by a consentaneous effort, quickly inverted the body a third time, thus throwing all the blood possible to the brain, and again they began their efforts at artificial respiration. It seemed to me that she would never breathe again; but at last there was a spasmodic gasp, and, after a long while, there was another effort at inspiration; and, after another long interval, there was a third; they were "far between"; then we watched, and waited, and wondered if there would ever be a fourth; at length it came, and more profoundly, and there was a long yawn, and the respiration became tolerably regular. Soon Dr. Beylard says, "I feel the pulse again, but it is very weak". Nélaton, after some moments, ejaculates, "The colour of the tongue and lips is more natural". Campbell says, "The vomiting is favourable: see, she moves her hands; she is pushing against me". But I was by no means sure that these movements were not merely signs of the last death-struggle; and so I expressed myself. Presently, Dr. Johnston said, "See here, doctor; see how she kicks; she is coming round again"; and very soon they all said, "She is safe at last". I replied, "For heaven's sake, keep her safe; I beg you not to put her on the table again till she is conscious". This was the first and only suggestion I made during all these anxious moments, and it was acted upon; for she was held in the vertical position till she, in a manner, recovered semi-consciousness, opened her eyes, looked wildly around, and asked what was the matter. She was then, and not till then, laid on the table, and all present felt quite as solemn and as thankful as I did; and we all in turn grasped Nélaton's hand, and thanked him for having saved the life of this lovely woman.

In a few minutes more, the operation was finished, but, of course, without chloroform. The sutures were quickly assorted and separately twisted, and the patient put to bed; and, on the eighth day thereafter, I had the happiness to remove the sutures in the presence of M. Nélaton, and to show him the success of the operation.

I have detailed the circumstances of this interesting case at great length, because I believe it goes as far to establish a principle of treatment as any one case ever did, or possibly can.

If the recovery had been complete and perfect with the first effort at reversing the body, there might have been a doubt whether the vertical position was really the cause of resuscitation; but, when the horizontal position was again and again followed by a cessation of all evidence of life, and when life was again and again re-established by a position that favoured only the gravitation of the blood (poisoned as it was) to the brain, the inference is very clear that death in such cases is due to syncope or cerebral anæmia. Exhaust the brain of blood in any way, and death follows speedily. Fill it with blood again, and life returns.

I have another case to relate, which goes far to establish the principle of treatment in chloroform narcosis, so forcibly illustrated by the case at St. Germain.

In January 1873, I amputated the cervix uteri at the Woman's Hospital, drew the vaginal tissue over the stump, and secured it by silver sutures. The junior house-surgeon gave the anæsthetic. When the operation was nearly finished, he cried out, "The patient has stopped breathing", and immediately added, "She has no pulse". As before stated, I always use ether as an anæsthetic, and could not realise the fact that my patient was in any danger whatever till I was told that they were giving her a mixture of chloroform and ether (one part to four), which some of the surgeons had been using a few days previously. On examining the patient, I found her, as it were, dead; there was not the slightest muscular rigidity; the arms and head fell by their own gravity in any way they were directed; the neck was as limber as if it were a mere band of soft linen stretching from the head to the trunk; there was not the least sign of breathing or of the pulse; she was, to all intents and purposes, dead; and I believe she would certainly have remained so if she had been left alone; and I doubt very much whether she could possibly have been resuscitated by any other method than that of Nélaton.

I quickly inverted the body, and had it held thus; and then I shook the thorax, agitating the head laterally, so as to add an impetus to the movement of the blood, which, with the body in this vertical position, would naturally gravitate toward the brain; the jaws were held asunder, and the tongue hooked with a tenaculum, and pulled forward. In a few minutes the breathing was re-established, and then the pulse returned; and soon the patient was placed again on the table in the lateral semi-prone position in which all my operations on the uterus are performed; and the operation was finished, but without any more of the anæsthetic.

These two cases comprise my personal experience with Nélaton's method in chloroform narcosis.

The *New Orleans Medical and Surgical Journal* for November 1873 says: "In the course of an extended experience in the administration of chloroform, it has happened three times to Dr. M. Schuppert, that, to all appearances, the narcotised subject died—that is, respiration ceased, the heart stopped beating, and muscular contractility became extinct. The method he adopted for resuscitating these patients consisted in reversing the body, either by hanging them up by the feet, or laying them over a bed or table, so that the greater part of the body with the head hung down. In that position, artificial respiration was also tried. In one case, five minutes elapsed before there was a natural inhalation. All of them recovered. Dr. Schuppert believes that, in cases of death from chloroform, the primary cause of the cessation of the respiration and circulation rests in anæmia of the brain, and not in impregnation of the blood with carbonic acid."

Another American authority, Dr. E. L. Holmes (*Chicago Medical Journal*, September 1868), says that whenever there is any failure of the heart's action, as is nearly always the case, the body should be laid at an angle of 40 deg., with the head downwards, so as to favour the passage of arterialised blood to the brain.

I take it for granted that Dr. Schuppert and Dr. Holmes must have obtained their knowledge of this method of resuscitation either directly or indirectly from the teachings of Nélaton; for he had for years been in the habit of explaining his method in his lectures and at his *cliniques*, and Dr. Johnston published an account of it in the American papers in 1861. Ten years ago, there was a story prevalent in Paris that M. Nélaton had derived the hint of reversing the body in chloroform-poisoning from a discovery accidentally made by his little son, then seven or eight years old; that the little boy had killed some mice with chloroform; that, without thought or reason, he had taken up a dead mouse by the tail, and was twirling it round, when, to his surprise, it began to manifest signs of life, and recovered entirely, while the mice left lying were dead; and that the great surgeon was thus taught a great lesson, if not by babes and sucklings, at least by a little boy. This is a very pretty story as it is, and it seems a pity to spoil it. A few days ago, when in Paris, I called to see young Nélaton (who is now a student of medicine, and will graduate next year), and I asked him for the facts of the mouse story. He said that when they lived on the Quai Voltaire, the house was infested with mice; that great numbers were caught in traps almost daily; that he was in the habit of killing them with chloroform by covering the trap with a napkin and pouring the chloroform on it; and that his only idea was that of an easy death for the mice. One day, when he had given a happy despatch to some mice, his father accidentally came into the room, and, seeing the dead mice, he told his son that if he would take up one by the tail, and hold it with the head downwards, it would revive, while the others would not. He did this, and found it was true. And he told me that he had, when a boy, performed the same experiment on mice forty or fifty times or more, and always with the same unvarying result. He says that he has often heard his father speak, not only of the case that occurred at St. Germain, but of other cases that he had saved in the same way before the time of the mouse story, which dates back to 1857 or 1858.

As the facts now laid before you fully explain themselves, it is unnecessary for me to indulge in any lengthened remarks on the subject. In my own country, the accoucheurs often use chloroform, and the surgeons mostly use ether. I believe there has not as yet been a single death from chloroform given during labour; while deaths from it in general surgery occur constantly, and for unimportant operations. There must be a reason for this. I believe that it can be explained only on the theory that death from chloroform is, as a rule, due to syncope or to cerebral anæmia. Now, we know that in active labour there can be no cerebral anæmia, for every pain throws the blood violently to the head, producing fulness and congestion of the blood-vessels, thereby counteracting the tendency of the chloroform to produce a contrary condition. It may be said that the recumbent position has some influence in determining the safety of chloroform in labour; and so it has, but it gives no immunity under other circumstances. Chloroform, given intermittingly, as in labour, is thought to be less dangerous; but patients in labour are often kept for hours under its influence with safety, and occasionally it is necessary to produce complete and profound narcosis in some obstetrical operations; and yet, I believe, I can safely reiterate what I have already said, that no woman has as yet died in labour from the effects of this anæsthetic. In puerperal convulsions, where the brain is believed to be overcharged with blood—and that, too, when the blood is known to be poisoned with urea—we formerly bled the patient, and we do so now sometimes; but our chief remedy is chloroform, which acts by arresting spasmodic movements, and by producing that very state of cerebral anæmia so necessary to a successful result. Whether puerperal convulsions are less frequent in labours under chloroform than in those without it, I do not know.

I believe that obstetricians may take a lesson from Nélaton's method of resuscitation, by adopting it in cases of threatened death from *post partum* hæmorrhage. Let us not be satisfied with simply placing the head low; but let us, in addition to the means usually adopted, invert the body, and throw what little blood there is left in it wholly to the brain. I have never seen a death from uterine hæmorrhage; but from recollections of the few alarming cases I have witnessed, I now feel sure that recovery might have been hastened if I had known and adopted Nélaton's method of inversion.

Whether death from chloroform is due to cerebral anæmia or not, it is at least safe to adopt Nélaton's method in all cases of supposed or threatened danger; but I think the safest plan is to relinquish the use of chloroform altogether, except in obstetrics. The frequent cases of death from the use of chloroform in surgical operations that have occurred amongst us, even of late, should warn us to give up this dangerous agent, if we can find another that is as efficient, and, at the same time, free from danger. Ether fulfils the indications to a remarkable degree; but, while it is safe, it is unfortunately unpleasant to the physician and bystanders, as well as to the patient. He who will give us an anæsthetic as pleasant to take as chloroform and as safe as ether, will confer the greatest boon upon science and humanity.

THE CORRELATION OF MEDICAL POOR RELIEF AND PUBLIC HEALTH ADMINISTRATION.*

By HENRY W. RUMSEY, M.D., F.R.S., Cheltenham.

THE connection between the medical care of the poor and the public exercise of preventive medicine was traced, however imperfectly, by myself, in the second and fourth of my *Essays on State Medicine*; and all subsequent events and discussions have seemed to confirm the principles which I then ventured to lay down and the practical conclusions which I drew from them.

Having shown that scientific inquiry is the indispensable basis to sanitary administration, I then mentioned that there were *three* classes of official agents necessary to the collection and compilation of the facts to be subjected to the higher processes of scientific analysis and induction; namely—1. The medical attendants of the sick poor, under the Poor-law; 2. Medical officers of health under the Public Health Acts; and 3. The Registrars of Births and Deaths.

Of the last mentioned, I need say but little on this occasion; for the *status* of the department of vital statistics has never been seriously threatened; and the General Register Office is now brought fairly into co-operation with the central sanitary authority. Since the establishment of that department in 1837, it has undergone a succession of administrative amendments, another of which, making registration compulsory, has just received the sanction of the Legislature. The yet required adjustment of the local machinery of registration with that of medical relief and of disease prevention, will be noticed hereafter.

I proceed at once to remark on the employment of the destitution medical staff in health-administration; and I would meet a preliminary difficulty, arising from the fact that a very large proportion of sickness among the poorer classes, and in towns by far the largest proportion, does not come under the care of the district medical officers under the Poor-Law. This, however, is an argument rather against the fragmentary and irregular, yet complex, character of our various social arrangements for medical relief, than against employing the legally appointed medical visitors of districts as sanitary officers. It is an argument for Charity Organisation and for bringing all institutions for the treatment of the sick poor, whether legal, charitable, or provident, under a combined system—a reform for which we must look *to the future*.

Whenever effected, so far from checking or depressing charitable and voluntary efforts, some sort of consolidation might so regulate, extend, and improve them, as to diminish materially the present cost of relief under the Poor-Law.

Within ten years, however, after the introduction of the new poor-law arrangements, the abuses of the system were so flagrant that it became a question whether it were not advisable that all medical action, even in the mere relief of disease, should be removed from the administration of the destitution authorities; and whether those authorities might not be advantageously restricted to the provision of relief in money or kind, leaving the higher question of the cure and prevention of disease to purely sanitary authorities. I believe that Mr. Ceely and I were the first to bring this question formally before a Committee of the House of Commons in 1844. That very able and philosophical statesman, the late Sir G. Cornewall Lewis, though not advising the immediate adoption of our proposals, admitted the reasonableness of our principle and the possibility of working it, while he used it as an argument against what has been attempted by inferior men since his time, viz., the constituting a medical department under the Poor-Law Board. Although we were defeated in that effort, its principle has never been lost sight of. But the firm hold which forty years of poor-law administration has given to a medical system, wrong in its foundation, renders the practical application of our theory a task of much greater difficulty now than it would have been when first laid before Parliament.

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* Read before the Public Medicine Section of the British Medical Association at Norwich, August 1874.

Here we are, then, saddled hopelessly with the Poor-Law Board as masters of the position. The change of name into Local Government Board has not altered their nature. The building of the new administration of sanitary law upon the foundation of the old destitution department was from the first a doubtful expedient, and it has proved to be a fearful, if not an irretrievable, mistake. The natural (and, to some extent, necessary) connection between destitution and sickness, and measures for their relief and prevention, by no means rendered it necessary that the Poor-Law Board should be placed at the head of public health administration. The so placing that Board is a striking instance of what Matthew Arnold called the "Philistinism", which prevails in our social and political institutions, the coarse *ungeist* which stifles, corrupts, and debases our public measures. But the thing was done, because it seemed so easy.

> "Facilis descensus Averni,
> Sed revocare gradum, superasque evadere ad auras,
> Hoc opus, hic labor est."

The question practically now becomes this—Is it possible to infuse into public administration, even under this Philistine Board, a higher, a more free and noble spirit, by allotting to the physical sciences, and to their exponents in the medical, chemical, and engineering professions, a more influential and independent position? Is it possible to liberate those professions from the tyranny of the legal and official traditions—the red-tape bondage—of Gwydyr House?

In reply, I say that we must begin with the basis of the civil medical service, that numerous official body, to which is committed the care of the sick poor in districts and public institutions.

The custom, now universally established by law, of assigning fixed salaries to the medical attendants of the poor is, in reality, an obvious recognition of the sanitary or preventive character of their office, otherwise they would be paid merely for the sickness they relieve, and would have no material interest in preventing disease.

A full record of the sickness and accidents relieved at the public expense would, therefore, be the first element of a public registration of disease, applying equally to epidemic visitations and to sporadic attacks, and specifying the local conditions, the personal relations, and the topographical and physical circumstances connected with the loss of health.

The machinery for such a registration (as far, at least, as the poorer classes are concerned) is at hand and always available. Hitherto, it has not been fairly utilised in Great Britain. But in Ireland, under the Medical Charities Act, the records of disease have long proved a most valuable aid to public administration. The corps of medical officers in England only requires to be placed in a similar position to that which it occupies in Ireland under a public dispensary organisation with sanitary authorities.

I hardly need occupy your time by suggesting those particular modifications and amendments in the periodical returns of the union medical officers which would fit them for the purposes of scientific registration, without diminishing their direct utility in affairs of local management. The honoured name of Liddle, Dundas Thomson, Ballard, Richardson, Ransome, Philipson, Lewis, and many others will occur to those present, as authorities on the subject, who from time to time have shown how the crude lists of the sick made by the union medical officers might be corrected, amplified, extended and completed, in readiness for the next stage in the process, namely revision and analysis in the first place by chief officers of health, and finally by the medical department of the central authority.

The same forms, in an extended registration, might apply as well to dispensaries and other public institutions, including mutual assurance societies, as to the district medical officers. In the last of a series of papers on this matter, which I published in our JOURNAL for March 1872, I ventured to enumerate the several particulars to be returned, and the methods of entry; and to this I beg to refer my hearers.

I now proceed to say a few words on the value of the union medical officers as sanitary inquirers of the first instance. Testimony has been borne to that value by many eminent persons of different opinions in other matters. For instance, Mr. Chadwick himself, in the General Sanitary Report of 1842; numerous well-informed witnesses before the Parliamentary Committee of 1844; Mr. Simon on several occasions, especially in his Report of 1849, to the civil authorities of London; and the Rev. C. Kingsley, and others before the Parliamentary Committee of 1854, all showed how easily and properly the officer appointed to attend the poor, might inquire into and report on the facts concerning the origin and propagation of disease among those committed to his charge; how advantageously he might act as the health-adviser of the poor; how well-informed he must necessarily be respecting the locality of their dwellings, the condition of their apartments, their food-supply, the physical management of their children, their nursing in sickness, and the effects of their occupations.

In this view of the case, the sanitary qualification of the union medical officer becomes a question of vital importance. In Ireland, an excellent opportunity for complete preparation for official duties, is ensured by a regulation preventing the appointment of any medical officer to a dispensary under the age of twenty-three years, thus affording to the candidate two years for further study or for practical work under supervision, as assistant to a dispensary officer, or house-surgeon in a hospital, after obtaining his license to practise.

For such reasons, many of us desire to see a special qualification required of all public medical officers of whatever class. There is no reform which would so certainly promote the greater efficiency or raise the status and remuneration of the union medical officer, as the possession of a special qualification, in addition to the ordinary license.

The mere inspector of nuisances, as he is called, must be a comparatively useless person, unless acting in official concert with a well qualified medical officer. I assert unhesitatingly that the mode of regulating the joint and separate action of these two classes of officers (medical officers and nuisance officers) deserves a much more careful consideration than has been hitherto given to it by the central authority.

Some sort of domiciliary visitation for hortatory purposes, when possible, would make the dispensary medical officers missionaries of health in their respective districts; and, in this noble calling, they ought to be aided by a well-instructed and efficient body of nurses, such as recent philanthropic efforts lead us to hope may ere long be at work in most populous districts.

Again, it has been often a question, whether the dispensary medical officer ought not also to be, *ex officio*, the public vaccinator of his district.

I am aware that the tendency of official inspection has been to separate vaccination, on the one hand, from preventive medicine, to which it certainly belongs; and, on the other hand, from medical relief, with which, in execution, it is most conveniently connected; and to make the public vaccinator an isolated special officer, acting, for the most part, in a larger district than that generally committed to the union medical officer, and, at all events, without reference to the duties of medical or sanitary visitation; one alleged reason for this course being, that the amount of population required to maintain an effective succession of vaccine virus may be larger than that ordinarily contained in a medical relief district.

But whatever may be the theoretical advantage of a somewhat larger area for vaccination, I believe that a diminution in the number of public vaccinators has not seldom been felt to be a serious obstruction and hindrance to punctual and prompt vaccination.

In the opinion of most who call for a general revision and adjustment of areas, the districts for medical relief ought to be either identical with, or divisions of, districts for the registration of births and deaths, public vaccination, house-inspection, and minor sanitary reports. With the increase of population, the difficulty raised by the too great limitation of vaccination districts will naturally diminish.

I am well aware that no such unification as we propose for the minor districts, with rectified boundaries, could be suddenly made; but I am satisfied that the required changes might be gradually and judiciously effected, with much advantage to all the purposes of local administration, and with great saving of labour to the higher authorities. This is a reform of immense importance to the public welfare and convenience, and it ought to be vigorously supported by the medical profession. It is also justified by the system established and at work in Ireland.

Those who know anything of my labours on the health-officer question need not to be informed that I have long and consistently urged the great importance of those objects, which are to be attained only by the employment of a higher order of medical officers of health over county combinations of districts, as superintendents, debarred from private practice.

But I always advised that they should be systematically aided by the great body of the medical attendants on the poor, acting as deputies.

This condition has been distinctly supported by the Joint Committee of this and the Social Science Associations.

Now, supposing that there are somewhat more than three thousand union medical officers, and that about one hundred superintendents are required for England and Wales, the average number of the union officers acting with, and supported by, each superintending officer might be more than thirty. In my judgment, it is very important that vacancies occurring among superintendents should be filled up by the union medical staff, some of whom, in each combination of districts, would almost certainly have distinguished themselves by meritorious services, and would be duly prepared, both by preliminary studies and by special experience, for the inspecting duties of the larger sphere. On this scheme of organisation, not at present sanctioned by Government, there would be added to the ordinary motives for excellent performance of duty, an honourable desire for promotion to the superior grade, encouraging self-improvement in special knowledge, and a pursuit of science concurrent with the pursuit of duty.

In the legislative project which ended in the Public Health Act of 1872, the Royal Sanitary Commission made a very serious mistake in one direction. A considerable portion of the sanitary party made, in my humble opinion, an equally great mistake in another. The former pointed out the union medical officers, without any improvement in their status or qualification, as the proper sole officers of health in rural districts, for reasons which merely justify their appointment as deputies. The latter objected to their being employed at all as officers of health, partly because they were not sufficiently independent in their professional position, and partly because many of them did not possess sufficiently high qualifications for the more difficult duties of the office.

The Local Government Board, unable to perceive the true solution of the difficulty, and rejecting medical counsel, sanctioned one defective plan here, another defective plan there. Those who wish to enjoy a trenchant, racy, and truthful *exposé* of the doings of the Local Government Board, under Mr. Stansfeld, should read Mr. Brudenell Carter's able address to the London Medical Society, on "The Waste of Life by Preventable Disease".[*] Suffice it now to say that, in many districts of the kingdom, we see the union medical officers acting alone in their respective districts, without information from the medical residents, and without performing the higher functions of comparison and analysis of facts, or drawing general conclusions as to causes and prevalence of disease, or instituting proceedings against the more influential factors of those causes; in other districts, one of their own number is selected to act, not only in his own original district, but in those of his neighbouring colleagues, who very naturally resent the intrusion; in other districts, again, private practitioners, out of office, yet rivals in practice, are appointed; while elsewhere, certain large, irregular, and ill-formed combinations of districts are superintended, without local aid, by skilled experts, debarred from private practice.[†]

The various arrangements admit of very different relations with the inspectors of nuisances, and none of them as yet provide for systematic co-operation in the registration of sickness and sanitary inquiry.

But, if the Sanitary Commission and the Local Government Board had perceived that the proper sanitary functions of the union medical officers, though distinct, were yet quite reconcilable with the proper sanitary functions of superintending officers of health; and that the *two* official classes *must* act in every district, the Public Health Act would not have proved a failure in the medical department of its administration; the facts of disease and death would have been duly recorded, and returned by the registrars and by the dispensary officers and vaccinators, the careful visitation of dwellings with preventive advice to their inmates, would have been conveniently accomplished—the statistical returns of the medical officers of health, "being based on an uniform system", would have been full and accurate; while the facts recorded would have been analysed, grouped, and, if necessary, verified by the superintending officer, his summaries and conclusions being reported to the authorities, whether central, combined, or local.

I cannot avoid protesting in this place against the course adopted by the central board,[‡] in recommending that the crude, incomplete, and uncorrected weekly relief returns, made by the union medical officers, should be handed over to the clerks of unions, to be copied for the use of the officers of health, without revision or explanation, or any pretence of remuneration to the original contributors—a course both unjust to the latter and delusive to the public.

In conclusion, I must remind my hearers that the greatest obstacle to correct sanitary administration has been the absurd statutory distinction between *urban* and *rural* districts and authorities, a distinction which was at once shown by our Joint Committee to be indefensible and unwarrantable, and which has caused most of the anomalies and difficulties encountered in the attempt to carry out the Public Health Act: a distinction which, I also regret to add, is clung to with a desperate and stolid tenacity by the present Government and its legal advisers, and by which they have succeeded in spoiling the sanitary measures of the late session for both England and Ireland.

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[*] Published in the four numbers of the *Lancet* for May last.

[†] There is, however, a modification of this last plan, which deserves candid consideration; viz., the appointment of a consulting-physician or surgeon in hospital practice, for special inquiries or inspections, for each of which a distinct fee might be paid, the ordinary routine duties of health-officer being left to the local officers.

[‡] See circular letter, signed "J. Lambert", and dated March 23rd, ult.

CLINICAL MEMORANDA.

MAMMARY ABSCESS IN INFANTS.

MR. MARSH JACKSON (Smethwick) says: I have met with several instances of painful indurated swellings of the mammæ in infants; and, to the best of my recollection, have invariably found that these symptoms have been preceded, and I believe caused, by the practice of sucking out the milk. There is a popular belief that, unless female infants have their breasts "drawn to break the strings", they will suffer from gatherings of those parts should they ever bear children. One child I remember being brought to me, with an extensive abscess, which had burrowed amongst the pectoral muscles, invaded the axilla, crept down the inner side of the arm as far as the elbow, and extended into the neck. Another, within the last five months, came under my notice, about a week after birth, with considerable swelling, pain, and hardness of both breasts. In both cases, the nurses had, with a mistaken zeal, been vigorously drawing the breasts. There are several similar practices which obtain in the lying-in-room, and which practitioners seldom take the trouble to investigate and prohibit. I may mention that of giving newly born infants a mixture of sugar and butter, for what useful purpose I know not, but certainly with the effect of inducing colicky pains and diarrhœa; and also that of stuffing the child with gruel during its early days.

DR. H. FRANKLIN PARSONS (Goole) writes that several cases of inflammation of the breast in infants have come under his care. One of them terminated fatally by gangrene of the breast, while another was followed by diffuse cellulitis of the side and back, from which the little patient eventually recovered. He believes that Dr. Dyer has hit the right nail on the head in attributing these cases to the absurd and barbarous custom of "breaking the baby's nipple-strings"—a process in which fingers and teeth, as well as lips, are vigorously used, which is often gone through on several subsequent occasions as well as at the first washing, and to which both sexes are impartially subjected. Moreover the evil tends to perpetuate itself, for the frequent result of mammary abscess is that the nipple is tied down by the exuded lymph, and, when the patient, having arrived at woman's estate, is unable to give suck, the retracted nipple is sure to be attributed by her friends to "the strings not having been properly broken when she was a baby". In a handbill on the management of children, which he has had printed for distribution in this district, Dr. Parsons has given an injunction on this point.

MR. HOWARD ORFEUR (Loddon) writes: Two months ago, I saw a female child, three weeks old, suffering from a mammary abscess two inches in diameter. The mother assured me that she had several times got a teaspoonful of milk from the opposite breast. The child in question is the eighth, and is said to be the only one so affected.

MR. W. G. DAVIS (Heytesbury) writes: I wish to endorse the thoroughly practical explanations of Dr. Dyer of Ringwood. I have had for more than thirty years more than my share of midwifery amongst the lower classes, and have had, until the last few years, a battle to fight with country midwives and nurses relative to this point. As a truthful man, I should be afraid to state the numerous cases of mammary abscess I have seen, and have *invariably* found them consequent on the rough usage the poor little innocents have been subject to from the nurse's "breaking the nipple-strings", as they term it. I have not seen for some years a case, and I attribute this to my strong declamation against the practice, and threatening an inquest in case of death in many cases where I thought it probably would occur. I have this morning seen a nurse aged 70. She says: "I have always broken the nipple-strings in girls, and boys too, and I am sure, when females become mothers, they cannot suckle well; and boys, when they grow up, have not so much power in their arms unless this be done." The old adage occurs to me when I reflect on the matter as looked upon scientifically—"Parturiunt montes, nascitur ridiculus mus."

REPORT OF THE COMMITTEE ON QUALIFICATION IN STATE MEDICINE.

A PAPER on the State Medicine Qualification was read by Dr. Henry W. Rumsey, in the Section of Public Medicine during the annual meeting of the British Medical Association in London, August 1873. At its conclusion, it was resolved to recommend to the Association the appointment of a committee "to consider the best means of providing for an adequate qualification in State medicine for all public medical officers." The recommendation was approved, on the proposal of Mr. W. G. Hastings, who had presided over the section, at a general meeting of the Association, held on August 8th; and the following committee was appointed, with power to add to their number: D. Dalrymple, Esq., M.P.; G. W. Hastings, Esq., LL.D.; E. A. Parkes, M.D., F.R.S.; T. P. Heslop, M.D. (Birmingham); Arthur Ransome, M.D. (Manchester); F. E. Anstie, M.D.; Ernest Hart, Esq.; A. P. Stewart, M.D.; W. H. Michael, Esq.; J. T. Arlidge, M.D. (Newcastle-under-Lyme); Robert Ceely, Esq., F.R.C.S. (Aylesbury); R. Macdonnell, M.D., F.R.S. (Dublin); H. W. Rumsey, M.D., F.R.S. (Cheltenham); and J. W. Tripe, M.D. (Secretary). Since the appointment of the committee Mr. Dalrymple has died, and the following have been added: Right Hon. Lyon Playfair, M.P., LL.D., F.R.S.; John Liddle, Esq.; T. W. Grimshaw, M.D. (Dublin); W. T. Gairdner, M.D. (Glasgow); W. H. Corfield, M.D.; J. W. Moore, M.D. (Dublin); T. J. Dyke, Esq., F.R.C.S. (Merthyr); F. T. Bond, M.D. (Gloucester); W. S. Trench, M.D. (Liverpool); Robert Elliot, M.D. (Carlisle); and M. W. Taylor, M.D. (Penrith).

This committee selected at once a small subcommittee, in order to prepare documents for circulation by post among the members. The subcommittee met frequently, and obtained many important written communications, and considered most carefully the replies of members of the committee to the several propositions of their scheme.

In now circulating the conclusions at which your committee seem finally to have arrived, after a general meeting in London, February 10th, 1874, they deem it advisable to call the attention of the profession, of the community, and of Parliament to the special characteristics of State medicine, as contrasted with those of ordinary or curative medicine, and thus to show the propriety of enactments for the special education and authorisation of those medical men who intend to devote themselves to this department of medical duty.

The term "State medicine" is a simple translation of the older German word "*Staats-arzneikunde*", and it may be taken to mean, as in Germany, all those medical studies and pursuits which concern the community as distinct from the individual, whether such medical action be required in the prevention of disease under sanitary authorities (public hygiene), or in the guidance of legal and forensic proceedings in matters of personal safety (medical jurisprudence). These leading departments of State medicine include (1) vital and sanitary statistics, (2) medical topography, climates, and meteorology, (3) causes of death and disease, (4) analysis of food, water, etc., (5) the principles of sanitary engineering and construction, (6) epidemiology, (7) preventive medicine in general; also (8) the laws relating to the medical profession and the public health, (9) psychological medicine in its administrative aspects, and (10) medical jurisprudence in general.

"The scientific knowledge of these subjects has of late years been largely extended; and they have excited, and are exciting, more and more public interest. Most of them have been subjects of Parliamentary legislation, and have become the business of Government departments. In connection with them some important offices have long existed. Many others, chiefly connected with preventive medicine, have been recently created,"[*] and an extensive, though imperfect, organisation of health officers has now been established over the greater part of the kingdom. These irregular appointments have unfortunately been made compulsory upon existing local authorities of various kinds in all places, while subventions from the national exchequer have been granted in aid of local expenditure upon medical salaries, without taking security for the special and complete qualification of the officers appointed.

"The ordinary education of the medical practitioner does not adequately qualify him for these duties. It only touches upon, and does not extend over, the subjects that have been mentioned. A physician or surgeon, accomplished in all that relates to the treatment of individuals in sickness, may be, and commonly is, very imperfectly informed in many of these subjects, each of which is in itself of considerable extent.

"It is therefore of importance to the community that some steps should be taken for providing persons more thoroughly qualified for the performance of these duties. It seems also desirable that means should be provided for testing their fitness and certifying it, so that the Government, or other authority, may have some guide to the choice of the fittest persons."[*]

But it is considered inexpedient, if not impossible, so to prolong the period and enlarge the scope of medical education, as adequately to qualify every registered practitioner for these duties. Such a requirement, imposed on the whole medical profession, might injuriously diminish the due proportion of practitioners to population.

In conformity with the resolutions of the General Medical Council, 1869, with the recommendations of a Syndicate of the University of Cambridge, and with the measures actually adopted by the University of Dublin, your committee have agreed that this proposed qualification should be granted only to those who are now, or may be hereafter, legally qualified for enrolment on the *Medical Register;* that it should not be made compulsory upon all medical practitioners, but only on those who shall hereafter hold office, "due regard being had to the interests of existing health-officers", and of all other medical men holding appointments in different departments of State medicine "in the several parts of the kingdom";[†] and further that, even for the proposed lower or primary State medicine qualification, an additional period of at least two years should be allowed to elapse in which the candidate for the State medicine qualification should be enabled to pursue special studies, so as to prepare himself for examination, after attaining the minimum age at present required for admission to the *Register.*

It has been reasonably urged that any scheme of qualification in State medicine should embrace two grades; the one, uniform or primary, to be required of all public medical officers enumerated in the Schedule to Clause XI, especially of health-officers; the other, of a more advanced nature, to be conferred by the Universities, and to be within the reach of those who aspire to higher offices, as inspectors, experts, and forensic assessors.

Your committee have endeavoured to meet this demand, without defining the precise class of officers for whom the higher qualification might be required; although it may be said that, besides the Medical Inspectors of the Local Government Board, there are Commissioners and Visitors in Lunacy, and there are Inspectors of Mines, of Factories, and of Prisons, some of whom, at least, ought to be medical men holding the higher qualification in State medicine. The committee have also provided for the optional attainment of the higher qualification by all who hold the lower.

With regard to the machinery by which this qualification should be conferred, two plans have been before your committee.

The first proposed to commit the examinations and the grant of diplomas or certificates to a body of examiners under, and selected by, the General Medical Council. The plan was warmly urged by the late Mr. Dalrymple, M.P., who intended to have brought it before Parliament, and who was actively engaged on this subject until the close of his valuable life. His principle was that, to some authority in connection with the State should be committed the power and the responsibility of regulating and superintending the grant of this distinction. He held that the licensing bodies, even should they be combined for the purpose of conferring a conjoint qualification for curative practice, are not, either in theory or according to past experience, the most suitable authorities for conferring a special diploma, which is outside of their original purview, and beyond the qualification required for the efficient practice of medicine, surgery, and midwifery; whilst the Medical Council contains members selected by the Crown on account of their special knowledge of the subjects of State medicine and the public duties of medical men.

The second plan proposed to leave this special qualification solely to the licensing bodies, acting conjointly; and it was defended, on the grounds mainly of simplicity and convenience, by one of the most distinguished members of your committee.

The balance of these considerations has decided your committee to recommend that, whatever may the nature or constitution of the proposed Examining Board in State Medicine, and by whatsoever authorities the members thereof may be selected, the Government or the General Medical Council should have power to appoint a proportion of members representing subjects which do not form a part of ordinary medical studies. The Medical Council should also be empowered to supervise and control the examinations; and in case of default of the medical authorities, or any of them, to take part in the formation of the examining body, the Medical Council should have power to take the necessary steps to complete and execute the scheme.

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[*] From the Cambridge Memorandum, 1870.

[*] *Ibid.*

[†] From Resolution of General Medical Council, 1868.

It is satisfactory to your committee to be enabled to announce that the University of Edinburgh has, very recently, added a Department of Public Health to the Department in which Degrees in Science may be obtained in that University. The minutes of the University Court show that it has been resolved that candidates for this degree must be graduates in medicine of a British University, or of such foreign or colonial Universities as may be specially recognised by that Court.

The regulations under which the Degrees of Bachelor or Doctor in Science in the Department of Public Health are to be granted in Edinburgh, as approved by the Chancellor of the University, June 15th, 1874, as well as those regulations which were issued by the School of Physic of the University of Dublin, relative to Degrees in State Medicine, and circulated by the General Medical Council in 1873, deserve alike the highest and fullest consideration in the construction of any general scheme.

It also deserves notice that the General Medical Council, during its last session, appointed a committee to consider the Report of a Select Committee of the House of Commons, dated July 3rd, 1874, on the Adulteration of Food Act, 1872, as regards the qualifications to be required of Public Analysts. In a report adopted by the General Medical Council, it is recommended that the Medical Council should be authorised to define the subjects of examination required by Public Analysts and Officers of Health, and to publish a list of the bodies which comply with the conditions laid down; also, that the qualifications of Public Analyst and of Officer of Health ought to be entered in the *Medical Register*, as additional qualifications when the holder is already a registered medical practitioner. By "Qualifications of Public Analyst and of Officer of Health", your committee understand the Medical Council to mean, certificates of competency or diplomas, qualifying for one or both of these offices. But your committee strongly object to the suggestion of the Medical Council, that there should be a multiplicity of examining boards in England, in Scotland, and in Ireland, for the purpose of granting such certificates of competency for the abovementioned offices.

Lastly, it has been a question for consideration whether it should not be made in future compulsory upon local authorities to require the possession of some qualification in State Medicine by all candidates for office; say, in five or seven years, so as to allow a sufficient time to students to make due preparation for such a change.

And it has also been a question, not hitherto decided, whether the subvention allowed out of the national exchequer in augmentation of the salaries of medical officers of unions, and medical officers of health, whose appointments are approved by the Local Government Board, should not in future be restricted to those who hold the proposed special qualification; existing legal rights being, of course, duly protected.

On this point, as will be seen, the scheme puts forward moderate and conservative proposals.

Although the instructions of the Association to this Committee were "to consider the best means of providing the proposed qualification for all public medical officers", of whom the most numerous class are union medical officers, and although the older "Joint Committee" of this and the Social Science Associations recommended the adoption of a similar requirement for all future Poor-law medical officers, in conformity with the dispensary regulations now enforced in Ireland—the Committee decided at their last meeting (a small one) that it is unadvisable to include in the schedule annexed to Clause XI "union medical officers", unless acting as medical officers of health, under the Act of 1872, because such a requirement would be in excess of the present status and remuneration of those who might have no special public health duties to perform. Union medical officers may, therefore, be omitted from the schedule, should the Association so determine, after a full consideration of the written opinions of several other members of the Committee not present on that occasion.

The three cardinal principles which it seems desirable to maintain in the scheme now submitted, are:

First, the conservation of preliminary education, especially in its classical and mathematical departments; second, the continuance of the existing limitation of the subjects included in the present four years' curriculum, which is generally considered to be already too crowded; and third, the reservation of the specialities of public hygiene, and of forensic medicine in its higher departments, for the proposed two years, which candidates for the State Medicine qualification would employ, according to their opportunities for study and experience, after becoming qualified for registration.

In concluding their report, your Committee have now to lay before you their balance-sheet for the year, by which it appears that they have received from your Treasurer £14 : 4 : 3, and have expended £9 : 14 : 4, leaving a balance in their hands of £4 : 9 : 11.

Recommendations of the Committee.

I. That it is desirable to establish, throughout or in each division of the United Kingdom, an uniform qualification in State Medicine, to be held in future, beside the license to practise, by all persons (except those who shall have obtained a diploma in State Medicine granted by any University, as hereinafter provided) before they are elected to hold any public medical office, the salary of which is paid out of the rates or taxes, and which is mentioned in the schedule appended to Clause XI.

II. That this qualification should include an adequate knowledge both of *Legal Medicine* or Medical Jurisprudence, and of *Preventive Medicine* or Public Hygiene,—comprehending *Medical Police*, and the management of medical institutions supported by national or local taxation.

III. That this qualification be granted only to those who have previously obtained a qualification entitling them to be on the *Medical Register*.

IV. That every one holding this qualification be entitled to register it as an "additional qualification". (See Medical Act, 1858.)

V. That no one be permitted to register the proposed qualification until he attains the age of twenty-three years; so as to give opportunity for two years' additional study, preparation, and experience, after attaining the minimum age at present required for admission to the Register.

VI. That the General Medical Council be empowered and required to prepare a scheme for an examination in State Medicine—

The Scheme to specify

(*a.*) The number, qualifications, duration in office, duties, and remuneration of the examiners.

(*b.*) The subjects of the examination.

(*c.*) The nature and methods of examination.

(*d.*) The forms of diploma or certificate to be granted by the examiners.

(*e.*) The fees, if any, to be paid by candidates for examination.*

(*f.*) The application of moneys received, if any, for the purpose of defraying all costs connected with the examination.

(*g.*) The places and times of holding the examination.

VII. That a committee of the several licensing bodies in each division of the United Kingdom, be empowered to appoint examiners in those departments of State Medicine which are essentially connected with the science and practice of Curative Medicine; and that the General Medical Council be empowered to appoint a due proportion of examiners on subjects which do not form a part of ordinary medical studies and duties.

That these several appointments be made within six months after the scheme has become law; and that, in default of the licensing bodies appointing their committee, or of the committee nominating such examiners, or any of them, the General Medical Council be required to fill in such vacancies; and that, in default of the General Medical Council appointing any of the examiners before-mentioned, the Lord President of Her Majesty's Privy Council be empowered to appoint all, or any (as the case may be) of the examiners named in the scheme.

VIII. That this board of examiners be empowered to grant the certificate to qualified medical men of a certain standing, and to medical officers of the army and navy after a practical *vivâ voce* examination.

IX. That the above scheme be subject to revision by the Privy Council, and be laid before Parliament.

X. That graduates in medicine of any university in the United Kingdom, holding also a diploma in State Medicine from such university, shall be entitled to register it as a qualification for the higher offices of State Medicine; and that every person, holding the uniform qualification mentioned in Clause I, shall be entitled to be examined for such university diploma, according to the regulations, as to age, of the university to which he may apply, and to register such diploma if he obtains it.

XI. That no one shall be appointed to any of the offices specified in the schedule annexed, unless he be registered as possessing a qualification in State Medicine, or unless he shall have held such office on or before January 1st, 1840.

Schedule.

EITHER	OR
(*a.*) Union Medical Officer. (*b.*) Medical Officer of Health.	(*a.*) Medical Officer of Health, or Deputy Medical Officer of Health, or Union Medical Officer, acting in either of those capacities, under the Public Health Act, 1872.

(*b* or *c.*) Medical officer of any institution maintained out of funds raised by national or local taxation, as a prison, reformatory, house of correction, industrial school, police force, etc.

(*c* or *d.*) Medical superintendent or visiting physician of any hospital for the insane, or lunatic asylum.

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* It has been suggested that the examinations being for the service and security of the State, the examiners should be paid by the State.

(*d* or *e*.) Medical inspector of seamen.

(*e* or *f*.) Surgeon or medical inspector of any hospital under the Contagious Diseases Acts.

(*f* or *g*.) Medical inspector under the Local Government Board, etc.

(*g* or *h*.) Public analyst, if possessing a medical qualification.

(Signed) J. W. Tripe, M.D., Hon. Sec.

REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

The Parliamentary Bills Committee have, during the last year, been called upon to deal with several subjects of importance to the profession and to the public. Early in the year they were requested to take cognisance of the proposed scheme of the Obstetrical Society of England, for regulating the education and examination of midwives in this country. The last Government had, on a previous occasion, expressed to the Committee its intention of endeavouring to fix a minimum standard of education and examination for the midwives in public employ. This afforded an additional reason for considering the best means of founding a similar minimum test of knowledge for the large number of women—amounting, it is said, at present to 11,500—who are practising midwifery among the poor, without any prior tests of their knowledge, and without any provision for regulating or supervising their proceedings.

In the consideration of the scheme of the Obstetrical Society, the Parliamentary Bills Committee had the advantage of the assistance of a small subcommittee, including Dr. Aveling, whose name is already honourably identified with efforts to bring this important subject to a satisfactory conclusion; Dr. Holman of Reigate; and Dr. Desmond of Liverpool. The modified scheme, which was the result of their labours, has been printed in the British Medical Journal, and has been remitted for the separate consideration of the Branches of the British Medical Association. As yet, only two Branches have submitted it to discussion. The South-Eastern Branch, after a very critical discussion, has approved all the main features of the scheme. The Lancashire and Cheshire Branch, on the other hand, while considering that the midwives required improvement, objects to their compulsory education, and has not, therefore, approved the scheme.

The Parliamentary Bills Committee desire to have the means of ascertaining the whole mind of the Branches of the Association, and they hope that the Branch Councils which have not yet specially brought the memorandum above mentioned under the notice of their members, will take the earliest opportunity of doing so.

The Parliamentary Bills Committee have been further engaged in pressing upon the attention of the Government the claims of the medical officers of the army and navy to improved relative rank, pay, promotion, and retirement. Very full and complete information having been laid before the Committee, derived from communications from officers of all ranks, statements were prepared by the Chairman of the Committee which received the assent of experienced and well advised persons in the services, and were subsequently submitted by deputations to the Secretary of State for War and the First Lord of the Admiralty. These statements have since been published, and the Committee have received earnest thanks from medical officers at home and foreign stations for the course which they have adopted. The representations thus made to the Government are still under consideration; and, pending the result, the Committee abstain from public comment.

The Committee have not failed to direct their attention to the Bills and resolutions before Parliament, so far as they affected the medical and sanitary interests of the public and the profession. Among these may be mentioned the Sanitary Acts Amendment Bill and the Registration of Births and Deaths Bill. The Sanitary Acts Amendment Bill was a measure chiefly intended to remedy difficulties and technical defects experienced in the working of the Public Health Act of 1872. The Committee had the advantage, in considering this Bill, of the assistance of able medical officers of health, and have especially to thank Dr. Bond of Gloucester, Dr. Syson of Huntingdon, Dr. Child of Oxford, Dr. Cornelius Fox of Chelmsford, and Mr. Haviland of Northampton, for important suggestions. The result of the analysis of the Bill was a detailed memorandum of suggestions. This was placed in the hands of the President of the Local Government Board, through the kindness of Mr. Lambert, C.B.: it was by him carefully considered, and several of the suggestions made have been incorporated in the Act.

The Registration of Births and Deaths Bill is a measure of which the general objects commend themselves to the profession, since it aims at improving the records of birth and death and at furnishing an accurate basis of vital statistics. The Committee have originated and supported some amendments which aim at preventing the illicit disposal of the bodies of infants under criminal pretences, as though still-born; and which provide for a careful inspection of bodies not regularly certified before burial. In both these respects the Bill has been materially amended in its passage through Parliament. They have not succeeded in introducing any provision for any improvement in the means of remuneration for certificates of death, the opposite precedent of the recent Scotch Act being held conclusive against it.

The Parliamentary Bills Committee have had the satisfaction of rendering aid to the Joint Committee, representing the Dublin Medical Colleges and Corporations, and the Sanitary Association of Dublin, in improving the Irish Public Health Bill, introduced this year into the House. That measure has been in many respects greatly improved in its passage through the House, and is in many respects a much more satisfactory measure than the Public Health Act of England, 1872. The Dublin Committee have very courteously acknowledged the assistance which the Chairman of the Parliamentary Bills Committee was able to render on this occasion, and the Parliamentary Committee trust that many occasions may arise in which the Committee may be able to cooperate with their Irish and Scotch colleagues in promoting public and professional interests in Parliament by joint action.

August 12th, 1874. Ernest Hart, *Chairman of the Committee.*

REPORT OF THE COMMITTEE ON THE REGISTRATION OF DISEASE.

In accordance with a resolution passed at the last annual meeting of the British Medical Association in London, a memorial has been presented to the President of the Local Government Board, praying for the establishment of a "National System of Registration of Disease", and a petition to the same effect has been laid before the House of Commons by Dr. Lyon Playfair.

The urgent need of such a registration of sickness is abundantly proved by reference to most of the reports of the numerous medical officers of health appointed under the Public Health Act of 1872. Many of these officers complain of "the want of early information of the outbreak of infectious or epidemic disease" in their districts; that there are no "records of disease at their disposal"; "no contributors to supply them carefully and promptly with statistics of sickness and mortality, or to announce the presence of epidemic disease".

Attempts have, indeed, been made by the Local Government Board to satisfy these demands, by empowering the clerks to the guardians to copy out the entries of all new cases of disease reported at each meeting of the guardians, and to forward these returns to the medical officers of health within the several unions; but it has been pointed out by several of the more experienced of these officers that such returns are of little practical value; that, as one eminent writer says (Journal, May 30th, page 717), "they are an inefficient and fallacious provision, and cannot secure an accurate, scientific, and trustworthy record of disease"; and that whilst, on the one hand, it is unjust to the Poor-law medical staff thus to appropriate their information, without payment, and without any means of correction, the health-officers, on the other hand, cannot obtain from these returns the details that are often essential for the suppression of disease; it is furthermore most important that these records should be sent to the medical officer of health direct.

In the recently passed Sanitary Laws Amendment Act, no provision is made for preventing the spread of infectious diseases, either by the isolation of the sick, or by providing for speedy information of new cases of infectious disorders.

It appears, from a recent parliamentary return moved for by Mr. W. H. Smith, that the deaths in England alone from zymotic diseases amount to 111,000 annually, and it is probable that the number of persons attacked is at least six times as great.

Without a systematic registration of these attacks, it is hopeless to attempt to suppress outbreaks of epidemic disease; and your Committee would call attention to a proposal for the compulsory notification of all cases of infectious disorders, made in the first instance by the Manchester and Salford Sanitary Association, and since approved by the Joint Committee of this and the Social Science Associations on State Medicine.

With regard to the difficult subject of the remuneration of contributors of returns of disease, your Committee would suggest that public medical officers, whether belonging to the Poor-law Medical Service, or attached to gaols, hospitals, dispensaries, or provident clubs, should either be paid at the rate of twopence or threepence for each case recorded by them, or should receive, as some slight acknowledgment of their services, a sum varying from two to four guineas *per annum* for such satisfactory weekly returns of all new cases of disease as might be deemed needful by the Local Government Board.

FORTY-SECOND ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in NORWICH, August 11th, 12th, 13th and 14th, 1874.

THE following gentlemen entered their names in the book provided for the purpose.

Adams, Edward B., Esq., Bungay
Allen, Joseph, Esq., Norwich
Amyot, T. E., Esq., Diss
Anstie, Thomas B., Esq., Devizes, Wilts
Arlidge, J. T., M.D., Newcastle, Staffordshire
Armistead, Wm., M.B., Cambridge
Aveling, J. H., M.D., London
Bailey, F. C., Esq., Norwich
Baker, J. Wright, Esq., Derby
Balding, D. B., Esq., Royston
Ballard, Thomas, M.D., London
Barnes, Edgar G., M.B., Eye
Barnes, Robert, M.D., London
Barnish, Wm. C., Esq., Wigan
Barry, D. P., M.D., Twickenham
Barton, T. H., Esq., Long Stratton
Bartrum, John S., Esq., Bath
Barwell, Richard, Esq., London
Bateman, Frederic, M.D., Norwich
Baumgartner, J. R., Esq., Norwich
Benham, H. J., M.B., Ipswich
Bennet, Henry, M.D., London
Bennett, J. Hughes, M.D, Edinburgh
Bernard, Walter, L.K.Q.C.P.I., Londonderry
Beverley, Michael, M.D., Norwich
Boast, R.B., L.R.C.P.Ed., Wymondham
Bradbury, J. B., M.D., Cambridge
Bradley, Charles, Esq., Nottingham
Breach, John, Esq., Aston Upthorpe
Briggs, Henry, M.D., Burnley
Broadbent, S. W., Esq., Durham
Brownfield, John, Esq., Norwich
Bruce, J. Mitchell, M.D., London
Buchanan, George, M.D., Glasgow
Buck, W. E., M.D., Leicester
Burrows, Sir Cordy, Brighton
Cadge, W., Esq., Norwich
Cater, Wm., Esq., Fincham
Chadwick, C., M.D., Leeds
Chevallier, Barrington, M.D., Ipswich
Chuckerbutty, Soorjoocoomar G., M.D. (Calcutta), London
Clapperton, Jas., Esq., Market Deeping
Clarke, Caudell, Esq., Wymondham
Clouting, J. R., Esq., Shipdham
Clover, J. T., Esq., London
Clubbe, W. H., Esq., Lowestoft
Cook, J., M.D., London
Cooper, Chas., Esq., Needham Market
Cooper, E., Esq , Norwich
Cooper, James, Esq., Cromer
Copeman, Rev. Arthur Charles, M.B., Norwich
Copeman, E., M.D., Norwich
Corbin, M. A. Bazille, Esq., Guernsey
Cormack, Sir John R., M.D., Paris
Cornwall, James, Esq., Swindon
Cossar, Thomas, M.D., King's Lynn
Cresswell, Pearson R., Esq., Merthyr Tydfil
Crickmay, Edward, Esq , Laxfield
Croft, John, Esq., London
Crossby, H. E., M.D., Nice
Crosse, Thomas W., Esq., Norwich
Crowfoot, W. M., M.B., Beccles
Currie, J. Legge, L.R.C.P., Bungay
Davey, Jas. G., M.D., Bristol
Davis, Edward., Esq., Old Brentford
Day, Wm. H., Esq., Norwich
De Méric, Victor, Esq., London
Denham, J. S., M.D., South Shields
Denton, Edward R., Esq., Leicester
Desmond, L. E., M.D., Liverpool
Diamond, Hugh W., M.D., Twickenham
Dickson, Walter, M.D., R.N., London
Diver, E., M.D., Henley, Caterham Valley
Dix, W. Frederick, Esq., Smallburgh
Dodsworth, F. C., Esq., London
Doidge, J. G., Esq , Lifton
Dolman, A. H., Esq., Derby
Douglas, James R. A., Esq., Hounslow
Dowse, Thomas S., M.D., Highgate
Druitt, R., M.D., London
Drummond, Henry, M.D., Ipswich
Drury, C. D. H., M.D., Pulham St. Mary
Dudley, J. G., M.D., London
Duka, Theodore, M.D., London
Duncan, H. M., M.D., London
Duncan, J. Matthews, M.D., Edinburgh
Dunn, Robert, Esq., London
Durrant, C., M.D., Ipswich
Eade, Peter, M.D., Norwich
Edis, Arthur W., M.D., London
Edlin, E. Holberton, Esq., Bourne
Edwards, H. N., L.R.C.P.Ed., Shrewsbury
Ellis, H. D., Esq., Poole
Ennals, C. T., Esq., Littleport
Erwin, A. J., Esq., Mansfield, Ohio
Faircloth, Richard, Esq., Newmarket
Falconer, R. Wilbraham, M.D., D.C.L., Bath
Felce, Stamford, M.R.C.P.Ed., London
Fergusson, Sir W., Bt., F.R.S., London
Ferrier, David, M.D., London
Firth, Charles, M.B., Norwich
Foss, R. W., M.D., Stockton-on-Tees
Foster, Balthazar, M.D., Birmingham
Fothergill, J. Milner, M.D., London
Foulerton, J., M.D., London
Fowler, R. S., Esq., Bath
Fox, Cornelius B., M.D., Chelmsford
Fox, Edward Long, M.D., Clifton
Fussell, E. F., M.B., Brighton
Gairdner, W. T., M.D., Glasgow
Gibbon, Septimus, M.B., London
Gibson, R. E., Esq., Norwich
Gillett, George, Esq., Brook
Gilman, J. H., M.D., Lowell
Ginders, Alfred, M.D., Normanton
Goodwin, Charles, Esq., Norwich
Gorham, R. V., Esq., Yoxford
Goss, T. Biddulph, Esq., Bath
Gowers, W. R., M.D., London
Goyder, David, M.D., Bradford
Grove, W. R., M.D., St. Ives
Guy, Wm., M.D., Norwich
Hales, John, Esq., Holt
Hall, J. G., Esq., Swansea
Hardie, James, M.D., Manchester
Harrison, Reginald, Esq., Liverpool
Hart, Ernest, Esq., London
Hart, P. Neville, M.B., Catton
Hastings, H. C., Esq., East Dereham
Haughton, Rev. Samuel, M.D., Dublin
Haviland, Alfred, Esq., Northampton
Hemming, J. Hughes, Esq., Kimbolton
Henry, Alexander, M.D., London
Hensley, Henry, M.D., Bath
Hewitt, Graily, M.D., London
Hicks, J. Braxton, M.D., F.R.S., London
Higginson, Alfred, Esq., Liverpool
Hills, W. C., M.D., Thorpe
Hooper, Charles, Esq., Aylesbury
Horder, T. Garrett, Esq., Alston
Hovell, D. de B., Esq., Clapton
Howard, H. F., Esq., New Buckenham
Hughes, D. Watkin, Esq., Wymondham
Humphreys, J. R., Esq., Shrewsbury
Humphry, G. M., M.D., F.R S., Cambridge
Hutchinson, F., Esq., London
Hutchinson, Jonathan, Esq., London
Image, F. E., Esq., Bury St. Edmunds
Jackson, Jabez, Esq., Birmingham
Jacob, E. L., Esq., London
Jagielski, Victor, M.D., London
Johnson, Christopher, Esq., Lancaster
Jones, Edmund, M.D., Ross
Jones, Evan, Esq., Aberdare
Keetley, C. R. B., Esq., London
Kenyon, G. A., M.B., Chester
Kidd, R. Bohun, Esq., Blofield
Kingdon, J. A., Esq., London
Kirkman, J., M.D., Melton
Lack, T. L., Esq., Hingham
Laidlaw, Wm. G., M.D., Birkenhead
Laidler, Joseph, Esq., South Stockton
Langmore, J. C., M.B., London
Lawrence, A. E. A., M.D., Clifton
Leech, J., M.B., Manchester
Lever, R. C., M.B., 7th Hussars
Levis, R. J., M.D., Philadelphia
Ling, E. C., Esq., Saxmundham
Long, C. F., Esq., Ipswich
Lowe, John, M.D., King's Lynn
Lucas, R. Harry, M.R.C.S., London
Lucas, Thomas P., Esq., London
Lund, Edward, Esq., Manchester
Lunn, W. J., M.D., Hull
Lynn, Robert D., M.D., Newcastle-on-Tyne
Lyons, R. T., Esq., London
McEwen, W., M.D., Chester
McIntyre, John, M.D., Odiham
McKelvie, Robert, M.D., Cromer
McKendrick, John G., M.D., Edinburgh
Mackenzie, Morell, M.D., London
Mackintosh, Angus, M.D., Chesterfield
Macleod, George H.B., M.D., Glasgow
Madden, T. More, M.D., Dublin
Magnan, Dr., Paris
Makins, John, M.B., Middleton in Teesdale
Manby, A. R., Esq., East Rudham
Marriott, R. B., Esq., Swaffham
Martin, Wm., Esq., London
Mason, Frederick, Esq., Bath
Master, Alfred, Esq., Norwich
Mayo, A. C., Esq., Mildenhall, Suffolk
Mayo, C., M.D., Oxford
Medwin, A. G., M.D., Forest Hill
Mellor, Thomas, Esq., Manchester
Metcalfe, J., M.D., Beccles
Michael, W. H., Esq , London
Mierzijewski, Dr. J., St. Petersburg
Miller, John Faure, M.D., Paris
Miller, W. W., M.D., Eye
Monks, J. H., Esq., Dublin
Morgan, A. M. F., Esq., Norwich
Morley, John, Esq., Barton-on Humber
Morton, S., Esq., Norwich
Muriel, Charles Evans, Esq., Norwich
Nichols, W. P., Esq., Norwich
Nicholson, R. H. B., Esq., Hull
Orfeur, Howard, Esq., Loddon
Owen, Harvey, M.D., Clapham
Owens, Chas. A. O., Esq., Long Stratton
Paget, G. E., M.D., F.R.S., Cambridge
Paget, Sir James, Bart., F.R.S., London
Parker, Rushton, Esq., Liverpool
Parker, T. D., M.D., Deptford
Parr, Alfred, M.D., Little Kimble
Parsons, H. Franklin, M.D., Goole
Paul, James, M.D., Barnes, Surrey
Paul, J. H., M.D., Camberwell
Pearce, W. E. G., Esq., London
Pearse, Arthur, M.D., Botesdale
Pearson, J. Langshaw, Esq., Lancaster
Peter, Michel, M.D., Paris
Phillippo Matthias, Esq., Norwich
Pitt, J. B., L.R.C.P.Ed., Norwich
Pitt, Richard, Esq., Wellesbourne
Quain, Richard, M.D., F.R S., London
Ransome, Arthur, M.D., Manchester
Raven, Henry, Esq., Litcham
Ray, James, Esq., Lowestoft
Reid, James, Esq., Canterbury
Reynolds, J. Russell, M.D., F.R.S., London
Ringer, Sydney, M.D., London
Robinson, Haynes S., Esq., Norwich
Rogers, Joseph, M.D., London
Rogers, T. L., M.D., Rainhill
Rope, H. L., Esq., Wickham Market
Roper, W. R., M.D., Harston
Ross, Jas., M.D., Waterfoot, Manchester
Royle, Octavian N., M.D., Milnthorp
Rudd, Wm. A., Esq., Hull
Rugg, B. A., Esq., London
Rugg, George P., M.D., London
Rumsey, H. W., M.D., F.R.S., Cheltenham
Savory, W. S., Esq., London
Scatliff, J. P., M.D., London
Seaton, Joseph, M.D., Sunbury
Seguin, E., M.D., New York
Shaw, George, M.D., Battersea
Shaw, James, M.D., Thorpe
Shepheard, John, Esq., North Walsham
Sheppard, H. H., Esq., Norwich
Short, M. H. Esq., Walsham-le-Willows
Shrimpton, Charles, M.D., London
Shuter, James, Esq., London
Sibson, Francis, M.D., F.R.S., London
Sieveking, Edward H., M.D., London
Simms, Frederick, M B., London
Simpson, Henry, M.D., Manchester
Sims, J. Marion, M.D., New York
Skrimshire, Charles S., Esq., Clydach
Skrimshire, John J., M.D., Holt
Smith, J. C., Esq., Yarmouth
Snaith, Francis, M.D., Boston
Soffe, W. E., M.R.C.S., East Harling
Southam, George, Esq., Manchester
Spurrell, Flaxman, Esq., Belvidere, Kent
Steele, A. B., L.K.Q.C.P.I., Liverpool
Steele, Frank, Esq., London
Stewart, A. P., M.D., London
Stewart, Henry H., M.D., Dublin
Stocks, Alfred W., Esq., Salford
Sympson, T., Esq., Lincoln
Tait, Lawson, Esq., Birmingham
Tallent, J. T. Esq., Hingham
Taylor, Hugh, Esq., Coltishall
Taylor, M. W., M.D., Penrith
Terry, Henry, Esq., Northampton
Thimbleby, John, L.R.C.P.Ed., Spilsby
Thomas, Griffith R., Esq., Midhurst
Thomas, Jabez, Esq., Swansea
Thomas, Robert, Esq., Rawdon
Thompson, James, M.B., Leamington
Thompson, J. Ashburton, Esq., Islington
Tuke, Daniel H., M.D., Falmouth
Tuke, J. Batty, M.D., Edinburgh
Turner, Horace, Esq., Norwich
Underhill, Thos., M.D., West Bromwich
Voisin, Auguste, M.D., Paris
Vores, Wm., M.D., Great Yarmouth
Waddell, J. Craig, M.D., Norwich
Walker, T. Shadford, Esq., Liverpool
Wallace, Samuel, M.D., Cardiff
Waller, John T., Esq., Flegg Burgh
Walsh, John, L.K.Q.C.P., Blackburn
Wathen, J. H., Esq., Fishguard
Waters, Edward, M.D., Chester
Watson, J. F., Esq., Norwich
Weaver, Frederick P., M.D., Frodsham
Webster, T., Esq., Redland, Bristol
West, E. L., M.R.C.P.Ed., Launceston
Wheeler, Daniel, Esq., Chelmsford
White, James, Esq , Wigan
Whipple, Connell, Esq., Plymouth
White, Ernest W., Esq., Norwich
White, R. Wentworth, Esq., Norwich
Wilkinson, Eason, M.D., Manchester
Williams, Charles, Esq., Norwich
Willmore, F. H., Esq., Walsall
Wilson, J. Mitchell, M.B., Chatteris
Wilson, Robert, M.D., Alnwick
Wood, John, Esq., F.R.S., London
Wood, Wm., M.D., London
Woodhouse, W., Esq., Norwich
Woods, Oscar T., M.B., Hatton
Worthington, F. S., Esq., Lowestoft
Wright, Frederic Wm., Esq , Derby
Wright, Matthew Hall, Esq., Birmingham
Young, William Butler, Esq., Reading

THIRD GENERAL MEETING, THURSDAY, AUGUST 13TH.

THE third general meeting was held in Noverre's Rooms, the President in the chair.

Report of the Medical Reform Committee.—Dr. WATERS (Chester) read the report of this Committee.

Dr. WILKINSON (Manchester) moved :

"That the report of the Medical Reform Committee be adopted, and the Committee re-appointed."

Dr. B. FOSTER (Birmingham) seconded the motion. He thought that the Association must feel the deepest gratitude to the Committee for the work they had done and the elaborate report they had presented. There was no subject upon which the Association should take more interest than that of the method of licensing of medical practitioners, for this involved questions of much direct importance to the whole profession.

The motion was carried.

On the motion of Dr. Waters, seconded by Mr. Southam, the name of Dr. Copeman, President of the Association, was added to the Committee.

Dr. A. P. Stewart (London) moved that a copy of the report be sent to the Medical Council and to all licensing bodies throughout the United Kingdom.

Mr. Michael (London) seconded the motion. It was most important that these bodies should be made friendly, and their support obtained to the endeavours to remedy a state of things in regard to licensing, which, to say the least, was a disgrace to the profession. [*Hear, hear.*]

The Rev. Dr. Haughton (Dublin) said it was useless to send one copy of the report to each body, and suggested that a copy should be sent to every member of the Council of a licensing body. If one copy only were sent, the secretary of the body most likely had it, and no one else saw it. What he wanted to see was that every member of a licensing body should have his mind instructed upon this matter, and then probably some might act upon it.

Dr. Sibson said that the excellence of the report was due to the Chairman, Dr. Waters, and it might be noticed that it omitted the veto of the Privy Council. This was right, for the profession was one which should be controlled by its own members. [*Hear, hear.*]

The motion, as amended, was then carried.

Report of the Registration of Disease Committee.—Dr. Ransome (Manchester) read the report of this Committee (see page 246).

Dr. Underhill (West Bromwich) moved the adoption of the report and the reappointment of the Committee.

Mr. Dunn (London) seconded the motion.

Dr. Rumsey said it was the opinion of others as well of himself that there should be a variation in the form of the returns of disease to be made, so as to allow, for instance, the medical officers of towns where special industries were carried on, and where there were special forms of diseases, to make returns which would give information on these special forms of disease, and to obtain the experiences of others. He did not know that he need do more than mention this as a suggestion, and, as to the report, he might say he wholly approved of it.

Dr. Ransome said there could be no doubt of the value of the matter in the suggestion of Dr. Rumsey; but the Council thought the suggestion was covered in the report. The returns were to be satisfactory, and they would not be satisfactory if they did not cover these special cases; but, as a memorial was to go to the Local Government Board, this matter might be mentioned.

The motion was then carried.

Report of the State Medicine Committee.—Dr. A. P. Stewart read the report of this Committee, and stated that during the year there had been no opportunity for active interference in the direction the Committee desired. The Committee had asked the Local Government Board to receive a deputation; but that department was much pressed, and the President did not think the matter was, in the then state of public business, so very pressing, and he declined to see the deputation until a later period; but the Committee hoped to wait upon the President of the Local Government Board before the next Parliament met. There had, in the meantime, been a large number of circulars sent out to obtain information as to the working of the Act of 1872, and, in answer, the Committee have received much valuable information. It had been intended to submit resolutions based upon the facts brought to the Committee's notice; but these facts were so voluminous, that it had been found impossible to bring them into compass without further time, and it was hoped that they might be brought to bear upon the governing authorities. He moved the adoption of the report.

Dr. Sibson seconded the motion for the adoption of the report, and said he thought the Association had reason to be most grateful to the gentlemen who composed the meeting.

The motion was carried.

Report of the Parliamentary Bills Committee.—The report of this Committee, signed by Mr. Ernest Hart, was read to the meeting. It is published at page 246.

Mr. Mellor (Manchester) proposed that the report should be received, adopted, and the Committee reappointed, with an expression of thanks for the arduous exertions used during the last twelve months. [*Hear, hear.*]

Dr. Chevallier (Ipswich) seconded the motion, and said that he did not think any Committee had more important functions than this, and without such a Committee the Association and the profession would be in danger of suffering harm in various ways.

The motion was carried unanimously.

Report of the State Qualification Committee.—After some conversation, the report of this Committee, which was stated by Dr. Rumsey not to have been formally adopted by the Committee as a whole, was read by Dr. Rumsey. Some conversation followed, and Dr. Rumsey suggested that three eminent men should be appointed as arbitrators on questions concerning which members of the Committee had differed. He suggested Mr. Hastings, Dr. Lyon Playfair, and Dr. Haughton. Ultimately, the discussion was adjourned, in consequence of the hour having arrived for the delivery of the Address in Surgery.

The Address in Surgery was delivered by William Cadge, Esq. It was published at page 207 of last week's Journal.

Mr. Savory (London) moved:

"That the best thanks of this meeting be given to Mr. Cadge for his able and interesting address in surgery."

However high had been the expectation raised by the announcement that so well known a gentleman would deliver this address, its merits were higher still, and all must have been highly gratified, for the greatest expectations had been more than fulfilled. [*Cheers.*] When a surgeon of Mr. Cadge's position and reputation undertook to speak for an hour on matters connected with surgery, though he simply recorded his judgment or expressed his opinion upon current doctrines or modes of practice, every word must be worthy of attention on the part of his professional brethren. [*Cheers.*] But Mr. Cadge had done more than this; he had paid the Association the compliment of giving an address which must have cost him many an hour of deep and anxious thought. [*Hear.*] No doubt the subject of this paper had been happily chosen. The history of Norwich was peculiarly rich in the matters with which Mr. Cadge had dealt, and indeed Norwich was second to no city in its surgery; and it was a subject, therefore, upon which Mr. Cadge was entitled to speak with authority. Of course, the paper was important enough to give rise to differences of opinion; but, where such differences might exist, it would be better to take time for consideration before expressing an opinion. [*Hear.*] He (Mr. Savory) would ask the meeting to say that the best thanks of the Association were due to Mr. Cadge for his interesting Address in Surgery—an address which those present would think was well worth coming to Norwich to hear.

Mr. Joliffe Tufnell (President of the Royal College of Surgeons of Ireland) thanked the President for the compliment he had paid to his College by calling upon him to second the motion. This was at once a hard and an easy task. This might be thought a paradox in England, but it was not so to one who had come from the Emerald Isle, for in Ireland such seeming contradictions were thought nothing of. [*A laugh.*] It was a hard task, because it was put into his hands to do it; it was easy, because it was only to be asked to be done. [*Cheers.*] He and the other happy visitors to Norwich had seen what had been done in the hospitals, and could see for themselves the evidences of the skill of the surgeons of the city. [*Hear.*] He seconded the motion with great pleasure.

The motion was carried by acclamation.

Mr. Cadge, in responding to the compliment, said that, since he had been asked to give the address, he had been much troubled with "stone on the brain", and this he had endeavoured to communicate to his audience. He hoped, however, that, during their stay in this city, they would not be troubled with the other form of the disease. [*Laughter.*]

Report on the Action of Medicines.—Dr. Hughes Bennett laid before the meeting a paper, giving the results of the researches carried on by a special committee as to the action of poisons, as tested by practical experiments on the lower animals. He prefaced his paper by stating that his illness had prevented his taking so active an interest in the work as he did before, and that upon Dr. Alexander Bennett and Dr. McKendrick had devolved the task of carrying on the experiments. The paper, which was of a highly elaborate character, will be published in the Journal.

Dr. Waters (Chester) moved the thanks of the meeting to Dr. Bennett for his excellent paper, giving a summary of the work carried out by the Committee. It was a matter of the deepest regret to all members of the Association that, during the last two years, the state of Dr. Bennett's health had debarred him from working on those experiments in which he took so deep an interest, and it was a matter of the utmost satisfaction that the arduous duty had fallen into the able hands to which Dr. Bennett had entrusted it. The speaker added, as an illustration of the value of the experiments in practice, that, after hearing Dr. Bennett's statement, some years ago, regarding the action of chloral hydrate as an antidote to strychnine, he had himself an opportunity of testing the value, practically, of the experiments; for, in Chester, a grocer had swallowed by mistake some poisoned cheese set for rats. The man was brought to the infirmary, and chloral hydrate was administered. He gave off a large quantity of strychnine, and, at the time when the chloral was administered, he was unquestionably suffering from the effects of the strychnine. The man recovered, and Dr. Waters had not the slightest doubt that this life was saved by the chloral, for strychnine passed off from the man after the chloral had begun to have its effect. These experiments should be continued, and the Association would derogate from the high position it held if it failed to encourage them. [*Hear.*] On the matter of theine mentioned by Dr. Bennett, it would be seen that three grains were said to be a fatal dose for a rabbit, and this actually was the dose which was usually prescribed for old ladies suffering under headache—a fact which showed how important it was that the medical profession should know all the effects of the drugs with which they dealt.

Dr. SIBSON seconded the motion, and said that it was most gratifying that Dr. Bennett should have honoured the Association by carrying out these experiments. The members of the Association must be deeply gratified at hearing from the Professor's lips the interesting story of the experiments, for it not only gave a vast amount of information, but it showed the vast labour he had undertaken, and, with the aid of able colleagues, had carried out. Small as were the numbers of poisoning cases as compared with the general work of the medical man, yet it was most important that the best means of treating such cases should be within the knowledge of the medical man, and this knowledge the efforts of Dr. Hughes Bennett and his colleagues had to a large extent given. [*Cheers.*] As a practical physician, he (Dr. Sibson) felt that Dr. Hughes Bennett and his colleagues had given great results to the Association, and every one of the Committee should be honoured.

The motion was carried by acclamation.

Dr. HUGHES BENNETT thanked the Association for the vote. He felt, he said, that this was almost his last appearance in public, and that this would be the last work he should be able to undertake. He hoped his successor would be encouraged by the favour shown to him, and would travel on a good road and achieve good.

SPECIAL GENERAL MEETING.

Incorporation of the British Medical Association.—The meeting was then made special, to consider the proposed incorporation of the Association; Mr. Southam, President of Council, in the Chair.

Mr. UPTON, the solicitor of the Association, made an explanatory statement regarding the Proposed Memorandum and Articles of Association, and said that, since the Acts of 1862 and 1867, a body could become incorporated by license of the Board of Trade. This had no disadvantages, but considerable advantages. In point of expense, the advantage was great; for the incorporation by Royal Charter would cost hundreds of pounds, while this under the Board of Trade would cost but thirty. If it were desired to alter the Articles of Association in a corporation under Royal Charter, the alteration could only be made through an expensive proceeding, while an alteration under the Board of Trade could be made in a very simple way; and the bye-laws could be altered at any time. The advantages of being incorporated were very great, and it was necessary in order to protect the property of the Association, for without this incorporation the Association could not recover any debts A question of importance would, perhaps, arise in the minds of the members as to the liability they incurred in being members of an incorporated society. The maximum liability of every member was a guinea a year, and would remain at this. He begged to express his thanks for the assistance of the Committee of Council and of Mr. Fowke, the secretary; and the latter, he said, had taken much trouble, and had given most valuable help in the work. If the proposed incorporation were carried, though one of the most simple pieces of work, it would not be the least useful of all that was done at the present meeting. [*Hear.*]

Dr. A. P. STEWART asked if it required two meetings of the whole Association to make any change in the Articles of the Association.

Mr. UPTON replied in the affirmative; but the bye-laws could be altered at any time.

Mr. SOUTHAM (the Chairman) said that it had been found that some of the bye-laws were not quite in accordance with the Association's present rules, and the meeting would not be asked to adopt them; but the vote would only be taken on the Memorandum and the Articles of Association. The Memorandum was insisted on by the Board of Trade as necessary to the formation of the Association, while in the Articles there was nothing but what was in the present rules.

It was moved by the PRESIDENT of the COUNCIL (Chairman), and seconded by Dr. FALCONER (Treasurer):

"That it is expedient that the members of the British Medical Association be incorporated pursuant to the provisions of the Joint Stock Companies' Acts (1862 and 1867).

"That the memorandum and articles, as prepared and explained by the solicitor, be approved and adopted, and that the Association be incorporated pursuant to the terms and provisions thereof.

"That every member of the unincorporated body be recommended to become a member of the corporate body, and that the secretary be requested to obtain forthwith the necessary assent from members for that purpose."

Dr. SEATON (Sunbury) called attention to the article requiring "fifty or more members" as the number necessary to call an extraordinary general meeting. He thought that this number being required would practically prevent any such meeting from being called. He moved as an amendment that the number be twenty-five.

Mr. CORBIN (Guernsey) seconded the amendment.

Mr. MICHAEL (London) supported the rule as it stood, saying that it was found that any less number would practically place the Association in the power of any few members. On any matter of importance, and for a good object, there would be no difficulty in getting fifty names to a requisition, and the Association ought not to be placed at the mercy of any smaller number, for so it practically would be. [*Hear, hear.*]

On the question being put, two hands were shown for the amendment, and, after some explanation had been given by Mr. Upton regarding Clauses 6 and 7 of the Memorandum, the whole Memorandum and Articles of Association were unanimously adopted.

The meeting then concluded.

FOURTH GENERAL MEETING, FRIDAY, AUGUST 14TH.

The Address in Obstetric Medicine was delivered by J. MATTHEWS DUNCAN, M.D. It was published at page 213 of last week's JOURNAL.

Dr. J. MARION SIMS (America) moved:

"That the best thanks of the Association be given to Dr. Matthews Duncan for his able and interesting address in Obstetric Medicine."

He said that he and his country had alike been honoured in the request that he should take this position. He had for ten years been a member of the Association, and during that period had been a constant student, through the JOURNAL, of all that went on in this country. He could say, without disparagement to the good men who had preceded the readers of this year, that the addresses heard at this meeting would take a very high place indeed in the history of the Association, and the address by Dr. Duncan was such that it could only bear comparison with the work of one man—the work of Dr. Duncan. [*Laughter and cheers.*] This was because all that Dr. Duncan had hitherto done was so brilliant, that the only question was whether anything more he did could come up to his own high standard. After a reference to Dr. Barker of America, whom he named as the Duncan of the States, the speaker made a passing allusion to the complete system of registration of the cause of death in New York. He then asked leave to speak of the American Medical Association, and said that, as Americans imitated England in everything, they, twenty-five years ago, founded an Association. This had gone on, and had published volumes of *Transactions*. Two years ago, after the Association had been going on as well as could be expected, at the annual meeting at Philadelphia, he was ashamed to say, five hundred grave and learned men for twenty-four hours discussed everything but science—the woman's question, the question of negro doctors, and such like; and the Association nearly split upon these rocks. A few wise heads, however, advised that these questions should be relegated to a Judicial Committee, and at the last meeting the whole proceedings were most harmonious, there being present men from all parts, and representatives from Canada, and nothing but science was talked. He was glad to state this, showing that the American institution was forming itself on the basis of the British, and, in his opinion, the nearer the American came to its British model, the nearer it would be to perfection. [*Cheers.*] He then moved the resolution of thanks.

Mr. MASTER seconded the resolution, which was carried unanimously.

Dr. DUNCAN, in acknowledging the vote, said that he had shown that women, when they married and had children, underwent great perils; but, if he had gone to the other picture, of the women who married and had no children, it would be seen that they were in danger of more fearful perils still.

Sectional Meetings were then held.

CONCLUDING GENERAL MEETING.

The concluding general meeting was held in Noverre's Rooms, at 1.30 P.M.

The State Medicine Qualification Committee.—Dr. RUMSEY, in resuming this subject, submitted that it would be advisable to make some provision for the adjournment of this question either to a general meeting or to the next year. He thought that some opinion should be expressed before the next session of Parliament; but, as he could not see his way to ask the meeting to adopt the draft report, there being differences of opinion on the Committee, he thought the difficulties would be overcome if the report could be referred to three men to act as arbitrators, as Dr. Lyon Playfair, as representing Parliament, Mr. George Hastings, as representing law, and the Rev. Dr. Haughton, as representing Ireland.

Dr. FALCONER moved that the report be referred to the Committee of Council, saying that he had no doubt, if that course were adopted, the suggestion of Dr. Rumsey would be taken into consideration.

Dr. RUMSEY said he was quite agreed to take that course.

Dr. ARMISTEAD seconded Dr. Falconer's proposition, and this was agreed to unanimously.

American Delegation.—Dr. MARION SIMS stated that Dr. Seguin had been appointed a delegate to visit England and France, to press for the nomination of a commission to prepare an uniform plan of instruments, scales, and tables of observation.

On the motion of Dr. FALCONER, the subject was referred to the Committee of Council.

The Grant-in-Aid Committee.—Dr. FALCONER proposed, and Mr. SOUTHAM seconded:

"That this meeting directs, and hereby empowers, the Committee of Council to appoint a Grant-in-Aid Committee, in accordance with the recommendation of the Council, as stated in their forty-second annual report."

Votes of Thanks.—The following votes of thanks were unanimously passed.

Dr. SYDNEY RINGER proposed, and Dr. MARION SIMS seconded:

"That the cordial thanks of the Association be given to the members of the East Anglian Branch of the Association, and to the profession and citizens of Norwich and the county of Norfolk, for their cordial and hospitable reception."

Dr. WILKINSON (Manchester) proposed, and Mr. DOLMAN (Derby) seconded:

"That the thanks of the Association be given to the local committees and their secretaries, and the local treasurer (S. Gurney Buxton, Esq.), for their zealous and active services."

Dr. MILNER FOTHERGILL (London) proposed, and Dr. CHUCKERBUTTY (Calcutta) seconded:

"That the warmest thanks of the British Medical Association be given to the local secretaries, Dr. J. B. Pitt, H. S. Robinson, Esq., and Dr. Beverley, for their very active and able services in connection with this most successful meeting."

Dr. BATEMAN (Norwich) proposed, and Mr. SOUTHAM (Manchester) seconded:

"That the cordial thanks of the British Medical Association be given to J. J. Colman, Esq., M.P., for his great hospitality in giving a *déjeûner* in the grounds of Carrow House."

Dr. CHEVALLIER (Ipswich) proposed, and Dr. DRUIT seconded:

"That the warmest thanks of the Association be given to Lady Lothian, Lady Crossley, Mrs. Ketton, Mrs. Prangley, Robert Leeds, Esq., E. B. Adams, Esq., and others, for their hospitality to the members on the occasion of their visit to Norwich."

Mr. CROSSE (Norwich) proposed, and Dr. FOSTER (Birmingham) seconded:

"That the best thanks of the British Medical Association be given to the Mayor and Corporation of Norwich, for their kindness in placing St. Andrew's Hall at the disposal of the Association for their meeting."

The President then left the Chair, whereupon it was taken by the President of the Council.

Dr. FALCONER proposed, and Dr. RUMSEY seconded:

"That the warmest thanks of the Association are due, and are hereby given, to Dr. Copeman for his services in presiding over this the forty-second annual meeting of the British Medical Association."

He congratulated the President upon the success of the meeting under his auspices. There was not one member of the Association at Norwich to whom Dr. Copeman had not been desirous of showing some personal courtesy, and, if any had been overlooked, it was by accident, and not by intention. [*Cheers.*]

Dr. RUMSEY seconded the resolution, and said that, though it did not need any recommendation, yet he could not help saying that the fortunate election of Dr. Copeman showed the advantage of taking as President the chief man of a locality, and was a proof in favour of the Association's present mode of selecting its Presidents.

Mr. SOUTHAM put the resolution, which was carried amid general cheers.

The PRESIDENT acknowledged the vote, and said it had been a week of work to him, but it had been one in which he had received more information and matter for reflection than he could have received in years of study. He thanked, on his part, all who had endeavoured to increase the scientific knowledge of their brethren, and improve the science of medicine generally. He was sure that no medical man could have come to the meeting without learning something, or taking back with him some thoughts for future study, and thus the meeting would happily advance the medical art. [*Cheers.*]

THE DINNER.

THE dinner of the Association was held on Thursday, August 13th, at St. Andrew's Hall; the President, Dr. Copeman, in the chair. Among the guests, along with many members of the Association, were the Mayor and Sheriff of Norwich, Mr. C. S. Read, M.P., Mr. J. J. Colman, M.P., the Rev. Canon Heaviside, Dr. Michel Péter, Dr. Magnan, Dr. Mierzejewsky, etc. In all, nearly two hundred and fifty sat down to the dinner. A large number of members did not take tickets until the last moment, and this indecision caused a large proportion of the guests to undergo a vicarious punishment in the shape of lessened attention and lessened comforts of the table. The hall was finely decorated, and a glee party added much to the pleasures of the evening.

After dinner, the PRESIDENT gave "The Queen", which was followed by the toast of "The Prince and Princess of Wales, and the rest of the Royal Family". It was explained by the President that the engagements of the Duke of Connaught, who had come into Norwich with his regiment during the meeting, prevented his honouring the members of the Association with his presence that night.

The Rev. Canon HEAVISIDE, in responding to the toast of "The Bishop and Clergy of the Diocese", said that the laity were essentially a part of the Church, for without the support and concurrence of the laity, the labours of the clergy would be of no effect. After speaking of the success of the Association in Norwich, from the report of several members, the rev. gentleman said that those whom he addressed had met to solve the most interesting problems which could affect human life and happiness. Not only was the object of the members of this Association the pursuit of positive knowledge for its own sake, but an assembly of this kind had an indirect advantage, as it tended to remove all the asperities which might have been engendered in controversies among men who had given medical subjects their attention. All were apt to dislike opinions that differed from their own, and to transfer their dislike to individuals; but these meetings helped men to get rid of these prejudices, and often turned hatred and animosities into esteem, or at least into more favourable recognition. [*Cheers.*] It was often said "Who shall decide when doctors disagree?" There were doctors of divinity as well as of medicine, and it might be that the doctors of one faculty disagreed as much as the other were reported to do. [*Laughter.*] In attending the meetings of this Association, he had heard a great deal about legislation in medical and sanitary matters, and he suggested that it might be desirable also to have an Act of Uniformity passed for the medical profession. [*Laughter, and cries of "No, no".*]

Mr. JOLIFFE TUFNELL (President of the Royal College of Surgeons of Ireland) responded to the toast of "The Army, the Navy, and the Auxiliary Forces". The interest of England could only be served by having, as the medical attendants of the soldiery, medical men qualified to do their duty; and he urged that the Association should not shrink from the steps that it had been taking, through the Parliamentary Bills Committee, to bring the cause of the army and navy medical men before the country. He acknowledged that the Irish medical men had been blamed as being in a sense a stopgap by filling vacant places, but they did so under a sense of doing their duty, yet the only return they had had was that the last warrant was not being acted upon.

Dr. WADDELL also acknowledged the toast. He suggested that, as the Association had increased in numbers, special attention should be paid to the department of military surgery. A strong desire had been evinced on the part of the medical officers of the army and navy, through one of their principal officers, that their department should be represented next year, and that a Branch should be constituted, to be termed "The Military Branch of the British Medical Association".

Sir J. PAGET, in giving "Prosperity to the British Medical Association", asked the members to dismiss from their minds the last occasion when the toast was proposed, as it was given by one who stood in the position of First Minister of the Crown, was the first man among statesmen, and the foremost man in eloquence in the world—Mr. Gladstone. [*Cheers.*] The toast did not need any eloquence, for all knew that the Association was never more numerous than at the present time, and never had a greater political or social power, or more wise guidance. Never before was the Association richer than now, and therefore never more able to give for the promotion of medical science. [*Cheers.*] In no year had the Association devoted itself more heartily to science than in that which had passed. [*Cheers.*] Never were there two orations delivered more admirably calculated to stamp a high character on the Association than those which had been given in medicine and surgery at this meeting. [*Cheers.*] Never was the science more profoundly set forth, or put forth in more practical form, than at the present meeting; and never were the discussions and papers in sections more fully attended, or more open or free, or larger in their scope. The Association had no more to desire, now, especially, that it achieved the glory of having attracted ladies (alluding to the ladies in the orchestra). [*Cheers.*] In this the Association had shown itself very wise, for all knew the power of reasoning possessed by the ladies; and they would reason out that a banquet like that must be the reward of labours which few men, and no ladies, could carry out. [*Laughter.*] He trusted that the Association in future would meet in yet larger numbers, with well guided powers, with larger means for the promotion of science, that its members might have the advantage of more magnificent halls if possible, and, with a better entertainment, still, that the ladies should be more numerous and quite as charming as those present, and that the like success might follow the Association. [*Cheers.*]

Mr. SOUTHAM (President of the Council), in responding, thanked the guests for the cordial manner in which they had received the toast. They had met under favourable circumstances, for they had met in a city which was one of the earliest to do honour to the Association; and in looking over the records of the meeting which took place twenty-eight years ago, he found that the Association was only a provincial, instead of being, as it was now, a general body. The visiting members of that time, years ago, received many valuable suggestions from the profession in the city, and these suggestions very materially assisted in furthering the Association's progress. He had no doubt that the Association, this time, would leave Norwich with a number of valuable suggestions, which it would give the Committee of Council the greatest pleasure to consider, with a view of carrying them out. Sir James had alluded to the presence of ladies, and although this was the first time the Association had been thus honoured, he trusted it would not be the last, for he trusted the Association would never again dine without their being present. [*Hear, hear.*] He expressed his pleasure at finding that not only had the Association been welcomed to the city by the members of the profession, but that ladies and gentlemen had testified their desire to have the Association visit the city by subscribing to the fund of the local committee, and by personal offers of hospitality. [*Cheers.*] As it was to the medical men that the corporate bodies had to look for advice in all sanitary measures, the Association had a claim to the generous support which had been accorded at Norwich, and no city of its size could have done more than Norwich had done. [*Hear, hear.*]

Dr. QUAIN proposed "The President." He said he was enjoying a holiday until he heard that this duty would devolve upon him. [*A laugh.*] A distinguished member of the profession had demonstrated by logic that it was possible to be sad and jovial at the same time, or, at least, so it might be inferred, from his illustration of the possibility of a thing being hard and easy; and for himself he might say he was in this position, for the one feeling was caused by the task of speaking, and the other by being present. He had often wondered why active medical men, when they had a holiday, should set about engaging in study; but the explanation was seen at these meetings, for it was at such meetings as those at Norwich that science and dry-as-dust talk were found blending happily with the social amenities of life. When he (Dr. Quain) asked who nominated the President, he was told that he was the foremost man in a place, and that he took his place by right. Dr. Copeman began life as one of the rank and file of the medical body, he being one of the general practitioners. A distinguished consulting surgeon might have more special knowledge, but no man had more general information, or was called upon oftener to supply it, than the general practitioner, and Dr. Copeman had contributed no few important facts to medical knowledge. [*Cheers.*] The members of the Association who had been to Norwich knew how well their President had filled his position, and they would only be giving honour where honour was due by giving a cordial reception to the toast. [*Cheers.*]

The PRESIDENT, in reply, said that he was thankful if he had done anything to advance medical science, adding that he had always endeavoured to attain practical results, and that he had never given himself up to any amusement which had interfered with his studies; indeed, he said, he had only had the enjoyment of music during many years. He advocated relying upon experience rather than statistics, for, after all, by experience and practice, one gained a sort of intuition which was the best and safest guide. After acknowledging the honour conferred upon him in being elected President of the Association, Dr. Copeman said that if the members of the Association were satisfied with his efforts—efforts which had caused him some sleepless nights—he was not the less grateful for the reception they had given him, and for the kindness with which mention had been made of his name. [*Loud cheers.*]

The Rev. Dr. HAUGHTON (Dublin), who gave "The Mayor, Sheriff, and Corporation of Norwich", made a very humorous speech, in which, after speaking of the city as many-angled, much bechurched, and hard to be trodden by strangers, said that when he came to Norwich he saw that the Mayor bore the name of him who stood side by side with Wilberforce in helping to knock off the fetters from the feet of the African slave, and to give back to the negro his wife and his children. [*Applause.*] Speaking in the presence of Americans, he congratulated them on having completed the work which Wilberforce and Buxton had begun. He might be pardoned an honourable pride in referring to the fact that Buxton, the grandfather of the Mayor of Norwich, was educated at Trinity College, Dublin. In Norfolk and Norwich, he was told, there were many Nonconformists, and he suggested that Buxton was sent to Trinity College, Dublin, because Oxford and Cambridge in 1793 were not open to Roman Catholics and Nonconformists. For Trinity College he claimed the honour of having, by her liberality, educated the Nonconformist grandfather of the Mayor of Norwich. [*Cheers.*]

The MAYOR, who returned thanks, expressed the hope that the Association had enjoyed its visit to Norwich, and said that the citizens would have done more, but from the feeling that the members of such a learned body would feel more comfortable if left to themselves. He also took the opportunity of saying that his grandfather did not go to Dublin to be educated because he was a Nonconformist, but for other material reasons connected with property. [*A laugh.*]

The SHERIFF also briefly returned thanks.

Dr. SIBSON proposed "The Treasurer, Dr. Falconer"; who, the proposer said, was ever hopeful that things were going on right, and whose foresight had been amply justified by the position which the Association had now teached. They had a great advantage in having a gentleman of Dr. Falconer's character for treasurer, for he was known as a ripe scholar, respected in his city for the breadth of his knowledge and views, and loved by all who had the pleasure of knowing him. [*Cheers.*]

Dr. FALCONER said it would not be becoming in him to enter at that time upon any particulars connected with his office, an office which had won for him the recommendation of his name by his friend Dr. Sibson. He could only say that, during the eight years he had had the honour of holding the office of treasurer, he had given the affairs of the Association his most careful consideration, and he confessed that, at one time, he looked with some anxiety at its financial condition; but he always saw a gleam of hope through the clouds which had surrounded it, for he could not but ever feel convinced that if the Association were true to itself, and true to the old landmarks upon which it was received into this city by those who had now passed away, it would not only achieve the success it had attained, but would do a vast deal for the promotion of the noble science of which they were the professors. His views had been partially realised; and he had no doubt, if the principles of the Association were maintained, that when he had passed away, and another treasurer stood in his place, the Association would so go on and flourish that financial difficulties would be known no more. He thanked them warmly for the toast. [*Cheers.*]

In reply to the toast of "The Visitors," which was proposed by Dr. BATEMAN, Mr. COLMAN, M.P., said that a professional engagement in another part of the kingdom prevented his honourable colleague Mr. Huddleston from being present; and it was with the greatest pleasure that he himself attended this dinner as a guest of a profession which, by its kindness and skill, had done so much to alleviate the sufferings of mankind.

The toast was further acknowledged by Dr. MARION SIMS of New York, and by Dr. PETER of Paris; the latter gentleman's speech being in French, and highly eulogistic of the British medical profession.

"The Local Committee of Management" was proposed by Dr. DUNCAN and responded to by Mr. W. CADGE: and the post-prandial proceedings were brought to a close by Mr. MICHAEL giving "The Ladies".

SOIRÉE IN ST. ANDREW'S HALL.

On Wednesday, the President of the Association gave a *soirée* in St. Andrew's Hall, which was both numerously and fashionably attended. A loan collection of the works of Norfolk and Suffolk artists attracted great attention. There was also a display of microscopic objects and instruments, a collection of fossils and autographs, and several portfolios of engravings and sketches by various gentlemen. The band of the 1st Norfolk Rifle Volunteers performed a choice selection of music during the evening, and refreshments were supplied in abundance in a marquee erected on the Hall Plain. The orchestra at the end of the Hall was tastefully arranged with ferns, exotics, and other plants, and a fountain erected in the centre gave the whole a pleasing and cool appearance. The general company adjourned at about half-past eleven, but the rain, coming on at that time very heavily, impeded in a great degree the departure of the guests.

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NATURAL SELECTION IN THE PRODUCTION OF SCROFULA.

THAT scrofula is affected by the surroundings and circumstances which modify the human organism, is a proposition put forward by Dr. Evory Kennedy in an admirable address recently delivered to the Dublin Obstetrical Society. He founds his view on the fact, "that all organisations are not merely variable, but varying". This is a view of the question not ordinarily taken, but it is one which deserves our careful consideration. If, as is undoubtedly the case, the scrofulous are prone to die out, either by early death on the part of the individual, or a survival just long enough to admit of the production of several children who will never attain maturity, it is obvious that scrofula must be bred up by the operation of laws acting upon us and around us, for there is little or no apparent diminution in the proportion of the scrofulous in our population.

In the production of those changes in the human organism which are summed up as scrofula, the factors are various. They form themselves, however, into two divisions—the one, forces acting from without, the other, forces acting from within. The forces acting from without are conditions of temperature, humidity, and altitude—these two last seeming to possess a like action; bad hygienic arrangements; and insufficient or unsuitable food. The other division includes the offsprings of immaturity; of senile degeneration; of the marriage of blood-relations, especially if repeated; and, lastly and largely, of the effect produced upon the human organism by the action of inherited syphilis. As to the action of these forces—especially of those of immaturity and degeneration in modifying the offspring—there is much unanimity; as to the marriage of blood-relations, or breeding in and in, there is less agreement. Dr. Kennedy lays much stress upon this factor, and alludes to the effect so produced upon farming stock. In this, however, it is possible that he is a little beside the mark. Such breeding in and in has a marked influence, chiefly in diminishing the size of the animal: this is very marked in fowls. There are other effects produced, especially in the Dorking fowl. The eggs are asymmetrical and deformed; and such abnormalities as the growth of the spur on the outside of the leg are produced. But there is not a condition produced which is fairly entitled to the name of scrofula. This inbreeding is avoided partly from the small size being unremunerative, partly from the modifications of form which constitute blemishes in the show-yard. By a process of selection, and production under favouring circumstances, diminutive varieties of most well marked breeds of fowls are attained by breeders; but these resultant bantams are not unhealthy, neither are they subject to any structural changes allied to scrofula. There is similar testimony furnished by the modifications in cereals produced by sowing the same seed in the same land repeatedly: the grain is small and the yield light. This last shows that that barrenness which is the precursor of extinction is showing itself in the plant. There must be added the operation of other factors to produce those tissue-changes known as scrofula. Such breeding in and in must be accompanied by the other factors, or some of them, in order to produce scrofula. Immaturity or senile degeneration added to them would probably produce that abnormal variation which we are now considering. Such are the circumstances, favoured doubtless much by the operation of congenital syphilis, which foster the production of scrofula in the upper classes, and for which the nobility of some countries—as Spain, for instance—are notorious. The Jews, whose intermarrying has been alike a choice and a necessity, are appealed to as furnishing evidence on a large scale as to the effect of breeding in and in. But the evidence so furnished rather complicates than illumines the subject; for Lugol, whose claim to be heard on scrofula is indisputable, states that the Jews are eaten up with scrofula; while Billing, whose experience and powers of observation are almost equally authoritative, adduces them as furnishing the best evidence that breeding in and in is ordinarily uninjurious.

The influence exerted by external forces has much effect in determining that modification known as scrofula. Where scrofula is endemic, a healthy person will not be himself affected by residence there, but in several generations the effect will be obvious enough. Of course, marriage with those whose systems are already modified, or are undergoing modification, may be fairly supposed to have something to do with the result. Conditions of privation, of overwork, etc., will not render a healthy person scrofulous, but they may induce in him "such reproductive debility as shall cause him to be the parent of scrofulous children"; or there may exist in two people, who marry, a tendency to variation, to tissue-modification, and then the double inheritance will become manifest. This would be rendered all the more certain if one parent were at the extreme verge of the reproductive period—if the father were entering into degenerative changes, or the mother were immature, with that tendency to rapid reproduction often found in those whose practical reproduction has commenced at a very early period. If we conceive the circumstances, far from rare, of an elderly man marrying some young girl whom he cannot otherwise very well protect, and they live under the unfavourable circumstances of a tiny dwelling, decreasing ability to earn on the part of the father, exhaustingly rapid reproduction in the mother, increasing scarcity of food, etc., we scarcely need assume an hereditary taint to be necessary to such modification as shall ultimately become scrofula. If there be such a taint, or a tendency, its becoming marked under such circumstances need occasion no surprise. That conditions of imperfect organisations, developed by poverty, by want, and squalid habitations, should furnish us with a constantly growing and developing scrofulous modification, we can readily understand, especially when we remember the terrible prevalence of syphilis and its effects upon the offspring. Granting that the effects upon the first generation are not very apparent, it is conceivable enough that, by the union of two beings reared under such circumstances, and the continuation of the unfavourable surroundings, the evolution of distinct scrofula might be attained, and that, too, with an uncomfortable amount of certitude.

Whether the first tendencies to scrofula be produced by patrician breeding in and in, and survival be alone rendered possible by the most favouring surroundings; or they have found their seeds in poverty, bad air, and even worse food; when once those changes, so denominated, are induced, their perpetuation in a more marked form becomes a distinct possibility, if the surroundings be favourable to such morbid change. If the youthful organism be placed at a disadvantage, the variation from the normal state will become more and more pronounced. "All the numberless miseries of life deteriorate the generative power, and, when the stock is once tainted, the leaven spreads in mathematical progression. Scrofula shows itself in the children in the third generation of those whose ancestors entered Paris full of health and vigour; and from the third generation the malady rages even to the utter extermination of the family name." (Lugol.)

Granting that all this is true, assuming so for the sake of argument, it is obvious enough that reversal of all this will tend to exterminate scrofula by breeding it out. If the would-be father would but make up his mind to perpetuate his race and name ere degenerative changes have laid upon him their withering grip; if the youthful female aspirant after motherhood would but restrain her reproductive instincts till maturity has fitted her for their indulgence; if the families degenerating into scrofula in the courts and streets of cities could be transplanted into healthy districts of country; if the inhabitants of districts where scrofula is endemic could be drafted off into other regions, and their places taken by others, and this practice kept up—as it certainly was by the Incas of Peru in the breaking up of conquered peoples and the merging of them in the general population; if syphilis, acquired ere the father seriously thought of becoming a *prolétaire*, could but be fairly eradicated by proper remedial measures,—then humanity might emerge from its cicatrices and its deformities, and leave behind it the scrofulous badges it wears. Nor is such hope chimerical. Increasing acquaintance with the natural production of scrofula—with what is to be avoided—will gradually point the way and reveal the indications for the guidance of those who stand in need of such direction; while improved sanitary conditions, acquaintance with what is conducive to health, and a generally spreading knowledge of physiology, give room for hope in the future.

Whether those tainted by scrofula will ever attain the exalted self-denial of celibacy, or even the lesser restriction of the selection of a perfectly healthy partner, it is impossible to say. It may fairly be hoped that at least such persons will delay their nuptials until their tardy maturity be attained, if only out of regard for the beings which shall be the product of their union. In reference to the matter, Dr. Kennedy, after enumerating the morbid changes in the scrofulous, delivers himself thus: "When we consider that all this misery is *preventable*, if not curable; that proper laws of hygiene, if carried out, might, in the course of two, or at most three generations, put an end to all this misery and beastial deterioration of millions of our fellow-creatures, we may exclaim, in the language of the prophet, 'How long!'"

With such outspoken utterances as to the origin, the causation, and the perpetuation of scrofula, the time ought not to be long deferred; unless, indeed, we are to assume the fatalistic attitude that what must be, is. If we supinely lie in the state of lethargic indifference of the past, the date may still be far distant; but such a state of quietude is, we trust, no longer possible. Certain it is, whether we choose to avail ourselves of the fact or not, that the part played by natural selection in the production of scrofula is distinct enough; and that indications of the necessity for action are furnished in such abundance that a neutral attitude is no longer the consequence of ignorance, but of a much more blameworthy matter—indifference. An interesting illustration of the production of those modifications of the human organism which we collectively term "scrofula", and of a return to the normal condition when the circumstances which had produced the changes had passed away, is furnished by the following case.

A peasant, whose family was liable to scrofulous modification, as seen markedly in his sister and her family, married a woman free from any taint of scrofula, and had two children, who present none of the characteristics known as scrofula. After their birth, the father had an attack of rheumatic fever, which left him with an injured heart, and consequently in straitened circumstances from his crippled condition as a bread-winner. During this period of nipping poverty two other children were born, whose clumsy figures, thick joints, tumid alæ nasi and upper lips, together with a strong tendency to glandular enlargement, mark the scrofulous diathesis. After this time the mother had an annuity left her, which once more placed them in comparative plenty. Two more children were born, approaching the healthy type of the two eldest, and comparatively free from the characteristics of the middle pair. When the family are gathered together, the history of the married life of the parents can be read in the physiques of their offspring.

This instance demonstrates clearly that variableness in the individual to which Dr. Kennedy refers, and points to the forces which act in the production of scrofula.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THIS document, which, for the doctor, has an importance equal to that of the revenue returns for the merchant and statesman, is, by the Registrar-General himself, stated to be "satisfactory". In the United Kingdom, the number of persons married in the quarter ending March 31st, 1874, was 115,346, of whom 82,834 were married in England and Wales. The annual marriage-rate for the whole Kingdom was 14.4, and for England 14.2, per 1000 of the estimated population. In England, it was almost an identical rate with that which prevailed in the first quarters of 1872 and 1873, and considerably exceeded the rate in the corresponding period of any of the five years 1867-71. It showed a proportionably large increase in the mining and manufacturing districts of Durham and Northumberland, and in Monmouthshire, where it appears to have been stimulated by high wages and demand for labour; whereas, in the agricultural counties of Wiltshire, Dorsetshire, Devonshire, Cornwall, and Somersetshire, and in Essex and Suffolk, the marriage-rate was low.

In the United Kingdom, the births of 288,476 children were registered in the quarter ending June 30th, 1874, giving a birth-rate of 35.7 per 1000. In England and Wales, 217,605 births were registered, giving a rate of 36.9 per 1000. The number of births considerably exceeded that returned in any previous quarter, and followed a year or two of high marriage-rates. The birth-rate was highest in Durham and Staffordshire, and lowest in Dorset and Sussex. In English towns the rate varied considerably; it was lowest in Norwich, Portsmouth, Cheltenham, and Hastings; highest in Birmingham, Salford, Stoke-upon-Trent, and Wigan.

In the United Kingdom, the deaths of 167,744 persons of both sexes were registered in the second quarter of the year, so that the death-rate was 20.8; and of these deaths, 123,990 were recorded in England and Wales, giving for this division of the kingdom a rate of mortality equal to 21.0 per 1000 of the estimated population. This rate was about equal to the average rate of the corresponding quarters of the ten previous years. It was lowest in the South-Eastern (17.1) and South-Midland (17.5); highest in the Welsh (23.7), the Northern (24.2), and North-Western (25.7) Registration Divisions. The increased mortality in the Welsh and North-Western Divisions was principally due to the prevalence of zymotic diseases, particularly measles and scarlet fever. The urban death-rate of England for the quarter was 22.5, the rural rate 19.1, per 1000 living. In eighteen of the largest English towns the rate ranged from 18.6 in Leicester and 19.9 in London to 29.1 in Manchester and 29.3 in Oldham. In comparing the rates in these towns with those during the same period of least year, it is found that in Portsmouth, Birmingham, Liverpool, Oldham, Leeds, Bradford, Sheffield, and Sunderland, there was an increase in the death-rate from zymotic diseases, while in Leicester and Salford a similar decrease occurred. In the fifty large English towns of the second rank, the death-rate was lowest in Cheltenham, Rochester and Chatham, Brighton, and Dover; highest in Swansea, Merthyr-Tydfil, Preston, and Wigan. Of the 123,990 deaths in England and Wales, 17,481 resulted from the seven principal zymotic diseases; 655 were referred to small-pox, 3723 to measles, 4635 to scarlet fever, 668 to diphtheria, 2560 to whooping-cough, 2833 to fever, and 2407 to diarrhœa. In workhouses, hospitals, and lunatic asylums, 10,957 of the total deaths occurred. The death-rate in London, with its estimated population of 3,400,701, distributed at an average rate of 45 persons to an acre, was low—19.9 per 1000 only. Most of the zymotic diseases were less prevalent than usual in the metropolis.

In the whole of the United Kingdom, the natural increase of the population during the quarter was 120,732; it was 93,615 in England and Wales, an increase probably due to the commercial prosperity of the country and to the general increase of wages which have prevailed during the last few years, especially in the mining and manufacturing districts, and which have secured a high marriage-rate in those districts. Emigration was low; the number of emigrants having been less than in the corresponding quarter of any year since 1868.

The mean temperature of the quarter at Greenwich was 52.8, and exceeded by 0.6 the average for the corresponding quarter of 103 years. It was high in April, low in May. The rainfall of the quarter was 4.2 inches, being an inch and a half below the average. In the six months ending May, the rainfall was only 4.49 inches, and was 6.40 below the average; this remarkably small rainfall in these six months is without precedent.

On the whole, "the return is satisfactory. Marriages were numerous; the births increased at such a rate as is required to meet the demands of industry and of colonial enterprise. The mortality is declining, but at a slower pace than would be witnessed if there were more intelligence, and less hesitation, in sanitary work. Yet the policy of improving the health of the people surpasses every other in importance".

THE TREATMENT OF CHOLERA BY SUBCUTANEOUS INJECTION OF CHLORAL HYDRATE.

A WRITER in the *Times* of August 17th calls attention to a plan of treatment of epidemic cholera, which has been followed in India with apparent success. It consists in the subcutaneous injection of a solution of hydrate of chloral (10 grains in 100 drops of water). The writer copies from the supplement to the *Gazette of India* of February 14th of this year a report on the subject from Mr. Higginson, civil surgeon at Kheri in Oudh, and a letter from Dr. Hall, who claims the merit of having originated the method. In a letter to the Commissioner of Sitapur, dated October 18th, 1873, Dr. Hall states that, in the *Indian Annals of Medical Science* for March 1870, he advanced the theory that, in the collapse stage of cholera, there was intense irritation of certain sets of nerves; and that hence the use of sedatives was indicated. These, he recommended, should be given by hypodermic injection; it being of little use to give medicines by the mouth. Subsequently, having, in conjunction with Surgeon-major Collis, ascertained by experiment the powerfully sedative action of hydrate of chloral, he tried the remedy with success on a soldier in the collapse of cholera—recovery being established in about five hours. He gives the following direction for the use of the medicine.

> "I attach great importance to the strength of the solution used (one part in 10 of water); if it is too strong, it probably will not be absorbed into the blood, and only cause ulceration or sloughing.
>
> "The following is the plan of treatment that I recommend for the three stages of cholera. During the premonitory diarrhœa (which is almost always painless), 30 drops of dilute sulphuric acid in a large wineglassful of strong camphor-water every hour. If this does not stop it, and vomiting comes on, commence the hypodermic injection at once. If the patient is first seen in collapse, inject 10 grains dissolved in 100 drops of water in four or five different places, according to the size of the syringe. This will probably be enough; but, if reaction does not commence within an hour, inject again. There is generally a great craving for cold water, which may be given in any quantity. Never mind if the patient vomits; as reaction proceeds, he will retain it. But no opium or stimulants are to be given in collapse.
>
> "After reaction, if secondary fever supervenes, quinine in varying doses, every one or two hours, may be given with milk, beef-tea, and mild stimulants."

Mr. Higginson, in his report to the Deputy Commissioner at Kheri, states that he has treated nineteen cases of cholera according to the method recommended by Dr. Hall, and that death had occurred in only two of these; one being a case in which the directions were not properly carried out, and the other an exceedingly severe and rapid case. The seventeen patients who recovered were in various degrees of collapse when first seen. Regarding the manner of administering the remedy, he says:

> "The injections were made in the arms and thighs, the cannula of the syringe being plunged pretty deeply into the flesh. The greatest quantity of chloral used in any of my cases was sixteen grains, or eight injections. If the case was a bad one, four injections were made at once; then nothing was done for an hour, when the treatment was repeated if necessary. As a rule, sleep was induced within two hours. Nothing else was done except mulling (shampooing) the limbs, and giving occasionally some cold boiled water."

The result of the treatment is thus described by Mr. Higginson.

> "Chloral hydrate, being a powerful sedative, soothes the irritated nerves, and so relaxes the contracted vessels; the blood is once more uniformly distributed, and consequently the pulse reappears at the wrist; the cramps and burning abdominal pains subside, sleep is induced, the respiration becomes regular, the discharges lessen, the face fills out, the voice becomes stronger, and the natural secretions are restored."

The Deputy Surgeon-General at Lucknow, in a letter to the Senior Secretary to the Chief Commissioner at Oudh, dated November 10th of last year, recommended that the report of Messrs. Higginson and Hall "should be printed in its entirety for distribution to the various medical officers, civil and military, within the circle".

The success with which Mr. Higginson has met (the recoveries amounting to 89 per cent.) is certainly such as to encourage a further trial of the hypodermic injection of chloral hydrate in cholera. At the same time, much more extensive observation is required before any definite conclusion can be arrived at as to the value or inutility of the treatment. We shall watch with interest any additional observations on this important subject.

DR. C. J. B. WILLIAMS has been appointed Physician Extraordinary to the Queen.

SMALL-POX is said to exist in the Forest of Dean, and appears to be spreading.

THE Crown Prince and Princess of Prussia and suite, on August 18th, visited and inspected the Royal National Hospital for Consumption at Ventnor. They expressed great satisfaction, and planted two trees in commemoration of their visit.

THE medical officers of the Islington Board of Guardians have presented a memorial to the Board, asking that a modification of the work should be made, in consequence of some portions of the district being very straggling and isolated, whilst in other portions, from the density of population, the work of visiting was comparatively easy and quickly made. The Board, however, have declined to make any alteration either as to the rate of remuneration or the redistribution of duty.

PROSECUTION UNDER THE PHARMACY ACT.

MR. GEORGE DAY, builder, contractor, and licensed victualler, of Farringdon Road, Clerkenwell, was summoned before Mr. Arnold, on the 14th instant, by Mr. Elias Bremridge, Secretary of the Pharmaceutical Society of Great Britain, for unlawfully selling oxalic acid without affixing the name and address of the seller to it. Mr. Flux, solicitor to the society, stated that the defendant was not a certified person to sell poisons. The defendant admitted that he was the owner of a chemist's shop two or three doors from where he resided, and it was not denied that his servant had sold some oxalic acid. The parcel that contained the poison had not the defendant's name and address on it, but that of a Mr. Hawes, and the address, Exmouth Street, Clerkenwell. Mr. Arnold said no doubt the defendant had infringed the provisions of the Acts of Parliament, but not with a fraudulent intention. He would bind over the defendant to come up for judgment when called upon.

THE PLAGUE IN BARBARY AND ITS CAUSE.

A CORRESPONDENT sends us the following account of the plague. The village of Marah is situated about twenty hours from Bengazi, in the caza of the same name. It contains sixty-four dwellings, and about three hundred inhabitants. The habitations of these people are mere excavations in the rock; they are dark, damp, and lie below the level of the Turkish fortress. A burying-place, built on a small eminence in the neighbourhood, is used by the people of Marah, as well as by the Arabs of neighbouring tribes. The mode of burial in favour among the Arabs is singular; the grave being never more than a foot deep, and the body being often covered only with loose gravel and a little earth. Close to the cemetery are wells, which are usually dry in summer, but the winter rains fill them; and, as the rain-water flows down from the cemetery, it washes away the slight covering of earth, and often leaves the bodies exposed. The impure matter thus carried to the wells would be sufficient to poison any person unaccustomed to it. But the Marah people drink the water of these wells, and it has been noticed that the prevalence of fevers depends upon the greater or less amount of rain which falls in winter. When the rain is abundant, swamps are formed, and there are numerous cases of fever. This year, it happens that there has been great misery among the Arabs of the Marah. Many of the villagers subsisted for a long time upon wild herbs; animals died in large numbers, and their carcases were allowed to rot under the fervid sun. The first appearance of epidemic sickness seems to have been in the month of March, when some corn-traders, arriving from the neighbourhood of Marah, reported that a dangerous malady had broken out amongst the tribes of Sit-Istanik. Nothing more was heard of the disease until May, when the sickness attacked another tribe, the Huän. Subsequently, the malady broke out in Marah, and on the 8th of June it was declared by Dr. Laval to be the plague. On the 17th of June, a medical commission was sent to the spot; and it found that the malady much more readily attacked those who ate of sheep affected with tumours very much resembling those which appear on human beings in cases of ordinary plague. Dr. Laval was obliged, for certain reasons, to return to Bengazi before the other members of the commission. Two hours after leaving Marah, the doctor sent back word that he had the plague, and died on June 27th. The commission reports that only those who drank of the well-water were attacked. From the 26th of June to the 3rd of July, there were twenty-three attacks and nineteen deaths, which were brought under the notice of the commission. This will give an idea of the violence of the disease. There is another medical commission expected from Constantinople, and we hope it will be provided with fuller powers to act as regards sanitary measures.

HOSPITAL SATURDAY FUND.

THE working men and their leaders appear to be taking this movement up in earnest, and public meetings were held in furtherance of the scheme both at Hackney and Clerkenwell Green on the 15th. It was stated at the latter that much of the advice received from the hospitals was taken without a thought on the part of the recipient as to how much the hospital was in need of his small help. The fact that the hospitals of London spent nearly £40,000 more than their receipts came to was sufficient to lead men to be prudent and help to support such valuable institutions. It was computed that at least three hundred accidents occurred daily; that was sufficient to show the need of hospitals, and what a calamity it would be to do away with them. He hoped the men of the district would support the movement. Mr. George Odger referred to the pride with which the men of Birmingham built a new wing to their hospital. The movement was a magnificent one, and he hoped it would be supported, for in so doing the working man would improve his moral condition. Resolutions favourable to the movement were adopted, and a local committee was appointed.

ST. THOMAS'S HOSPITAL: THE QUEEN'S STATUE.

ON Monday afternoon, a statue of the Queen was conveyed to the above hospital from the studio of Mr. Noble, who has been engaged upon this work of art for a considerable time. Her Majesty is represented seated in a chair of state, with one foot resting upon an embroidered cushion. The statue, which is of white marble, will be placed temporarily just within the main entrance to the hospital, and is expected to be uncovered in a short time; but it has not yet transpired by whom the ceremony will be performed.

THE SALOP INFIRMARY.

AN experiment has been in progress at this institution, since November last, of allowing the medical officers of the Infirmary to nominate a partner, or duly qualified assistant, to act for them in taking patients on Saturdays, and in attending to their out-patients on other days when they may be prevented by indisposition or business from being present themselves. It will doubtless be noticed that these new regulations practically rescind the "unwritten" rule that practitioners of midwifery and pharmacy should be ineligible for the office of physician to the Infirmary. It would seem to any one conversant with the nature and exigencies of general practice, that it would be well-nigh impossible for a general practitioner in extensive practice to spare the time necessary for an effective and conscientious discharge of a physician's duty at a large hospital; and, in fact, at most, if not all, hospitals of note, the physicians attached to them are advisedly debarred from general practice. The new practice at the Salop Infirmary is consequently an innovation on the usual hospital system.

THE PECULIAR PEOPLE.

THOMAS HINES, a working man living at Woolwich, and a member of the sect called the Peculiar People, was tried on Wednesday at the Central Criminal Court, before Mr. Baron Pigott, for neglecting to provide proper medical attendance for his child Joseph Hines, aged two years, and thereby endangering his life. The prisoner had been committed for trial for the manslaughter of the child, but this charge was not pressed. Mr. Baron Pigott, at the outset of the case, expressed great doubts whether the mere neglect to provide a sick child with medical assistance amounted to a legal offence, and he remarked that at one time it was considered that when death arose from the administration of homœopathic medicines, it amounted to the worse description of manslaughter. His lordship said he would, however, hear the evidence. The witnesses for the prosecution were then examined. They admitted that the prisoner had carefully attended to the child in every other respect except by not calling in medical assistance. Dr. Sharp said that the death of the child arose from inflammation. He should have employed leeches, and probably calomel, with the object of reducing the inflammatory symptoms. In answer to questions put by the learned judge, the witness stated that many medical men would object to the employment of calomel in such a case, and homœopathic doctors would almost think it madness to employ leeches. Baron Pigott, at the close of the evidence, expressed his opinion that no culpable negligence had been proved against the prisoner, and that the mere omission to call in a medical man in such a case did not amount to a criminal offence. He therefore directed the jury to return a verdict of not guilty, and the prisoner was ordered to be discharged.

THE OUTBREAK OF FEVER AT CLAYTON WEST.

IN consequence of a severe outbreak of fever at Clayton West, Dr. Thorne Thorne was sent down by the Local Government Board to investigate the cause. After a minute and searching investigation, he arrived at the conclusion that the disease was produced by specifically poisoned air. The air he believed to have been poisoned from the linen of the first patient attacked by the fever; this linen having been washed in a washhouse which communicated with a drain whence a sanitary pipe forced the foul air generated from the refuse washings and sewerage into the houses.

THE PHARMACEUTICAL CONFERENCE.

WE are glad to be able to direct attention to a satisfactory reply from Mr. Groves, the President of the Pharmaceutical Conference lately held in London, to some remarks we felt it our duty to make on a passage in his address. The strictures in question will be found in our impression of August 8th, headed "Advice by Chemists"; and Mr. Groves's letter is printed *in extenso* in our correspondence columns of the current week (see p. 261).

THE CALCULI SHOWN AT THE NORWICH MEETING.

THE calculi exhibited in the Annual Museum were remarkable for their number, their variety, and their clinical interest. The number approached 2,000, and included the large collection from the Norfolk and Norwich Hospital; about 70 from Mr. Craven of Hull; nearly 100 from Messrs. Worthington and Clubbe of Lowestoft; about 150 from Messrs. Lubbock and Gibson, Norwich; and collections from Messrs. Evan Jones and Hancocke Wathen, South Wales; of Indian calculi from Netley and King's College Museums; and collections from Messrs. Currie, Cadge, Allen, and Robinson, Norfolk. Amongst the most notable were, a stone weighing 15 ounces, successfully removed at the Norwich Hospital by the Marian section; a mulberry stone, weighing 8¼ ounces, removed by lateral lithotomy by Mr. Allen of Norwich, probably the largest on record; two compact lithic acid stones, weighing respectively 16 and 9 ounces, removed *post mortem:* in the former case, the symptoms were of the mildest description; in the latter, there were no symptoms of stone, and both patient and surgeon were unaware of its existence. The cystic oxide calculi from the Museum of St. Bartholomew's Hospital were remarkably fine specimens. The renal calculi were, if possible, even more striking than the vesical. The splendid specimen from St. Bartholomew's was unequalled; that from the right kidney weighed 36¼ ounces, and from the left 10 ounces; besides a multitude of smaller ones. They were composed for the most part of ammoniaco-magnesian phosphate, with compound nuclei. Next in size was the enormous white oxalate of lime stone from the Norwich Museum; it is of undetermined weight, of a cauliflower shape, and is preserved in the kidney. Very many other wet preparations of renal stones, together with a variety of specimens of bladders and prostatic disease, were exhibited, chiefly from the Norwich Museum—notably one of ordinary hypertrophy of the prostate from a patient aged 84, who died from false passage and abscess near the gland. A catheter 14 inches long was required, and the prostate weighed 20 ounces.

ASSAULTS ON LUNATIC PATIENTS.

STEPHEN SHOW, an attendant at the Kent County Lunatic Asylum, was charged with ill-treating Lewis Godby, a patient. Defendant said the injuries which had been inflicted had been in self-defence. The accused was committed to trial at the forthcoming Maidstone Quarter Sessions. A female attendant, at the same asylum, was also committed for trial on a similar charge.

THREE DEATHS FROM UNHEALTHY CARGOES.

AN inquest was held on the 17th instant at the Bull Inn, Barking, before Mr. C. C. Lewis, coroner, on the bodies of a man and two boys, who formed the crew of the brig *Dreadnought*, now lying at the mouth of Barking Creek. It appeared, from the evidence adduced, that the vessel was being loaded with patent manure from the works of Messrs. Lawes, and that part of the cargo consists of a mixture of superphosphate of lime and nitrate of soda, which gives off highly irritating and dangerous fumes of nitrous acid gas. On Saturday morning, the mate found the crew lying in their bunks on the lower forecastle, dead or dying, apparently from suffocation. They were brought on deck, but all died within a few hours. The ventilators of the forecastle were found closed, and from the direction of the wind it was evident that the men had been exposed all night to the noxious fumes. Medical and chemical evidence were adduced as to the composition of the manure, and the jury returned a verdict to the effect that the deceased died from suffocation, and that precautionary notices ought to be issued to the masters of all vessels which carry these dangerous cargoes. The vessel has been inspected by the port medical officer, and several alterations have been ordered in the arrangements of the forecastle.

AMMONIA IN SNAKE-BITES.

DR. HALFORD publishes in the *Melbourne Argus* of June 6th the following narrative.

"Through my friend Dr. Day, of Geelong, I have received from Dr. Stoddart the following account. 'A fine greyhound was brought into the house three hours after it had been bitten by a snake. It was totally insensible either to sound or feeling, and never moved. I touched the eye which had a glazed appearance without its showing any sensation; the breathing was hardly perceptible, and on placing my hand over the region of the heart, I could only perceive a flutter. I cut through the skin over the jugular vein, without the dog showing the slightest feeling. I injected into the vein ammonia and water of the strength proposed by Professor Halford. I waited three minutes, but not the slightest change took place. I then determined to inject a second time, which I did, and the change was almost instantaneous; the eye brightened, the animal moved its limbs, and, in about one minute afterwards, when I spoke to the dog by name, it wagged its tail and attempted to rise, and from that time continued to recover, and has killed some hundreds of rabbits since, and is now (April 17th, 1874) alive. I have an idea that I must have passed the nozzle of the syringe the first time between the cellular tissue and the vein, which would account for the want of the slightest effect being observable.' I hope, sir, you will publish this experiment with a dog. You have already published many on men. All the medical men and eye-witnesses here, Dr. Stoddart and myself, cannot have been dreaming, and our opinion is that the injection of ammonia is not inert."

FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE annual meeting of this Association is being held in Lille, during the week from August 20th to 27th. Contributions have been promised by a large number of members of the medical profession, among whose names we notice those of MM. Béclard, Broca, Charcot, Chauveau, Lefort, Leudet, Marey, Ollier, Roger, Sée, Trélat, Verneuil, Wurtz, etc.

ABSENCE OF THE NOSE IN A CHILD.

DR. ZOELLNER of Schesslitz communicates to the *Allgemeine Medicinnische Central-Zeitung* the following remarkable case of malformation.

"On July 15th, there was shown to me a child five days old, the subject of the following malformation. From the upper lip as far as the nasal bones, which project as in normally formed children, there is seen only a flat surface of skin, without furrow or opening. There is thus no trace of alæ nasi, nostrils, or nasal cartilage. The child is in general well developed. Nothing especial is to be observed in the mouth and fauces; but the frænulum of the upper lip is much developed. The principal point of interest is the mode of respiration. The child does not hold its mouth constantly open, as one would expect, but at short intervals separates the lips about a line from one another. The breathing is predominantly costal. If the lips be forcibly held apart for some time, in order, for instance, to examine the mouth and fauces, the child, after the removal of the finger, presses the lips firmly together for some seconds. The child is of course fed by hand, as sucking is impossible."

THE TYING-DOWN CASE AT ST. LUKE'S.

A LETTER was sent from the Local Government Board to the Guardians in reference to this case, stating that they have had under consideration the lamentable circumstances connected with the death of the pauper John Heritage in St. Luke's Workhouse. After a careful consideration of the facts, the Board found strong grounds for concurring in the opinion of the medical officer, that the mechanical restraint exercised upon Heritage might probably have accelerated his death. The Board consider it a matter of regret that the medical officer should not have visited this ward a second time on the day in question, as it was evident he considered the man's disease to be serious. They cannot but consider that, on learning next day the circumstances attending his decease, which it was, of course, his duty to investigate, the medical officer would have done well to send information to the coroner. The night-nurse and the master are also censured. The necessity for carrying out the recommendations of the Local Government Board, by having a separate infirmary under different arrangements, was also urged strongly upon the Guardians.

BEQUESTS.

THE late Mr. Thomas Banting of Worthing has been a generous benefactor to charitable asylums and hospitals, having bequeathed to them the following sums, duty free in each case: to the Royal Hospital for Incurables, Putney; the British Home for Incurables, Clapham Rise; the Idiot Asylum, Earlswood; the Worthing Infirmary, the Sussex County Hospital, St. Mary's Hospital, the Westminster Hospital, King's College Hospital, the Middlesex Hospital, the Charing Cross Hospital, the Lock Hospital, the West London Hospital, the Consumption Hospital (Brompton), the Cancer Hospital, the City of London Hospital, the Hospital for Sick Children, and the Great Northern Hospital, £1800 each; to the Paralytic and Epileptic Hospital, the Royal Westminster Ophthalmic Hospital, the Royal Orthopædic Hospital, and University College Hospital, £900 each. There are also numerous similar bequests to other charitable institutions. The testator gives legacies to members of his family and others, and the residue of his property is to be applied and disposed of by his executors to the best of their judgment, with a view to help convalescent persons needing the beneficial climate and other advantages of Worthing; and he desires that the charity may be called "Thomas Banting's Memorial."

ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION.

THE committee appointed at the last meeting of the members, held December 30th, 1873, met on July 31st, at 12, Hinde Street, Manchester Square. There were present: Dr. B. W. Richardson (in the chair), Drs. Ballard, Cholmeley, Christie, Cleveland, Paul, Sedgwick, Wynn Williams, and Woodman (Honorary Secretary). The Treasurer reported that, after payment of the working expenses and of the cost of the *Transactions*, there still remained in his hands a balance of £60 14s. 1d., notwithstanding that seventy-eight members had still omitted to pay their subscriptions. Dr. Sedgwick moved, and Dr. Cholmeley seconded: "That a sum of twenty-seven pounds be voted out of the surplus for the 'Mrs. Day Fund'". Dr. Richardson moved, and Dr. Sedgwick seconded: "That a sum of ten guineas be applied out of the surplus to give a trifling recognition to Dr. Paul for his valuable services as treasurer during the existence of the Association." Dr. Wynn Williams moved, and Dr. Ballard seconded: "That the balance of the surplus be placed in deposit, in the names of Drs. Richardson and Paul, to meet any future contingencies in connection with the University Committee of the Association." All these motions were carried unanimously. It was also resolved that subscriptions at present unpaid should be forwarded to Dr. Paul for the same purpose. The proceedings terminated with a vote of thanks to the Chairman.

THE WORKING OF THE CONTAGIOUS DISEASES ACTS.

IN a very satisfactory report, Colonel Henderson states that the common women, in the several places subject to the Acts, have attended medical examination with even greater regularity than during the preceding year; the average number of examinations being 21.46. If no cause had existed to prevent their examination, they would not have been present upon more than twenty-six occasions in the year. The police specially employed under the Acts have discharged their duties much to Colonel Henderson's satisfaction, and not a single instance of excess or violation of duty has been reported. The Acts have, nevertheless, been fully enforced, and all women following the calling of prostitutes have been placed on the register, if they persisted in pursuing that course of life after being cautioned by the police. There have been registered for the first time during the year, 1,568 women, chiefly coming from unprotected districts; yet, notwithstanding this influx of "new comers", the number of common women remaining on the register at the end of the year was 169 less than in the preceding year. In 5,871 cases, women signed the voluntary submission form; in 62 cases, applications for summonses were made for nonsubmission; but in only 33 cases was it necessary to obtain a magistrate's order to bring these women within the provisions of the Acts. In 174 cases, proceedings were taken for neglecting to attend medical examination after signing the voluntary submission form, or receiving a magistrate's order to attend. The dread of being brought under the operation of the Acts has, in many instances, a deterrent effect upon girls who as yet stand upon the border land between levity and degradation, and tends to diminish the number of women on the register, notwithstanding the increase in the population of some of the places where the Acts are in force. Clandestine prostitution has been greatly reduced, no woman now being able to misconduct herself for any lengthened period, without being cautioned by the police that if she does not alter her mode of life she will have to attend medical examination. The presence, too, of the officers employed is well known to the class of girls most likely to go astray, and the dread of detection is very salutary; in proof of this, young women in the position of domestic servants, and others, after nightfall, leave their male acquaintances directly the police employed under the Acts appear in sight. A decrease in the number of prostitutes is, therefore, due to the operation of these Acts, and a corresponding reduction in the number of brothels: 179 young girls between the ages of 12 and 18, and 117 women between the ages of 18 and 30, who had been found in bad company and improper places, have been rescued. The number of brothels has been reduced this year by 17; showing a total decrease of 593 brothels that have been suppressed within the protected districts since the Acts came into operation. 1,904 common women have been registered during the year, chiefly from the unprotected districts. Of this number, 701, or 37.93 per cent. of those examined (1,848), were found to be diseased on their first examination, whilst 172 only, or 8.25 per cent. of those examined (2,085) out of 2,290 women, remaining on the register on the 31st December, 1872, were found to be diseased.

HYDROPHOBIA.

A YOUNG man died at Brighton on August 14th from this cause, after a very short illness. Early on the morning of the 13th, deceased felt unwell, and medical assistance was obtained, but it was found impossible to get him to swallow any medicine. Hearing that he had been bitten by a dog three weeks ago, the suspicions of Dr. Rugg were aroused as to the nature of the case. He accordingly pressed him to drink a little brandy and water, but it was no sooner put to his mouth than he was seized with convulsions, and sprang up in his bed in a raving manner. He evidently wished to drink it, but was quite unable to do so. Seeing the danger of the case, Dr. Rugg called in Mr. Furner and Dr. Withers Moore. They concurred in the opinion that it was a genuine case of hydrophobia. Chloroform was administered several times during the day, but it had no effect.

THE PROFESSORSHIP OF CHEMISTRY IN GLASGOW UNIVERSITY.

THE Crown has appointed Mr. John Ferguson, M.A., to the Chair of Chemistry in Glasgow University, vacant by the retirement of Dr. Thomas Anderson. Mr. Ferguson has for some years been assistant to Dr. Anderson, and has of late performed the almost entire duties of the Chair, on account of the illness of Dr. Anderson. He is well known in Glasgow as a man of great research and varied attainments.

IRELAND.

AT a special meeting of the Dispensary Committee of the Rahan Dispensary, Mallow Union, the salary of Dr. William M'Donald, medical officer, was increased from £100 to £120 *per annum.*

PRESENTATION.

A LARGE number of friends and admirers of Dr. Thomas Salmon, of Castlepollard, lately waited upon him, and presented him with a handsome silver tea service and a purse of sovereigns, in token of their feelings of respect, and confidence in him as a professional adviser.

DUBLIN MAIN DRAINAGE.

AT a special meeting of the Corporation, held on Monday last, in reference to the above matter, it was resolved that the Council shall select three engineers to consider the subject, and report to a committee of the whole house, within two weeks from the date of their appointment; and as there are upwards of one hundred plans to be examined, these gentlemen will have an arduous duty to perform within a very limited period. We fear, therefore, that there is little chance of anything practical being done this year to remedy the present disgraceful condition of the drainage of Dublin; and we are afraid that in a few weeks the whole affair will be put aside, until next summer again brings it into prominence.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Lead-poisoning.—The Pathology of Uræmia.—M. Piorry on Cholera.—Infant Mortality in France.—Disposal of the Dead.—Poisoning by Corrosive Sublimate.

As there is not much going on in the hospitals just now, the clinics being closed for the holidays, I shall entertain your readers with the proceedings of some of the learned societies, etc. At the Academy of Sciences, MM. Bergeron and L'Hôte presented a curious case of poisoning by lead. The event took place in a property in the department of the Seine and Marne. Twenty-six persons were suddenly seized with symptoms, more or less serious, of lead-poisoning, and two of them succumbed. It was first supposed that there was an epidemic of typhoid fever; but, from the progress of the symptoms, the medical men of the place soon discovered that the symptoms were caused by toxic doses of lead. An inquiry was immediately held, the result of which went only to confirm the opinion of the medical men. The leaden pipes through which the water used by these people passed had been laid down twenty years since without undergoing any change whatever. The true cause was found in the brine, with which the butter consumed by those who belonged to the estate was preserved. On testing the brine, it was found to contain a solution of sea-salt almost to saturation, sugar, saltpetre, acetate of soda, and chloride of lead. This latter salt, the result of the action of lead on the chloride of sodium, constitutes, according to M. Mialhe, the most poisonous of lead preparations. At the necropsy, a very notable proportion of lead was found in the intestines, in the liver, and, what was considered very remarkable, in the brain. According to some authors, the salts of lead are never found in the brain in cases of lead-poisoning.

At a subsequent meeting, M. G. Daremberg recalled to mind an observation that was communicated by him to the Biological Society in June 1873. The subject was a painter, who was affected with symptoms of plumbic and mercurial poisoning, of which the man died. At the *post mortem* examination, traces of lead and of mercury were found in the brain and in the kidneys.

At the same meeting, M. Traube brought forward a theory of his own, according to which the symptoms of uræmic poison resulted from the fluidity of the blood, and the consequent great tension of the aortic system, which produced œdema and anæmia of the brain. Richardson, Falk, and Munk had supported this doctrine, and proved by experiments that, to cause death, it is necessary to inject enormous quantities of water, about three times the entire mass of the blood in the system. M. Picot, wishing to explain the effects of injections of water into the veins, also tried several experiments, from which he came to the following conclusions. 1. Injections of water into the jugular vein of a rabbit, in doses of one-tenth to one-fiftieth of the weight of its body, kill the animal; 2. When the injection is made into the external saphenous vein, the dose has to be increased to one-tenth; 3. Doses of water, amounting to one-eighth of the weight of the body, injected either into the peritoneum, or into the veins of dogs, do not kill them; in doses of one-fifth, death supervened by rupture of the vessels; but, in all the animals on which the experiments were made, when death ensued, nothing resembling the phenomena of uræmia were discovered; 4. Water injected into the blood acts, according to Richardson, on the red corpuscles, which it affects in their very structure, and thus renders them, in all probability, unfit for the interchanges of the gases. The absence of cerebral lesions runs counter to the idea of death taking place by the nervous system; 5. It is probable that, in animals submitted to injection into the jugular vein, death supervened by a profound obstruction to the respiration, caused by the sudden and prolonged flow of blood, largely diluted with water, into the pulmonary system; 6. If one reflect that, in twenty-four hours, a dog excretes only 22 *grammes* 5 *centigrammes* per *kilogramme* of the weight of his body, and that, in these experiments, as much as 100 or 125 cubic *centimètres* of water per *kilogramme* were injected, it may be well understood how difficult it is to admit that the increased intravascular pressure under the influence of suppression of urine, accompanied with adenitis and anæmia of the brain, could be looked upon as the pathogenic cause of uræmia; 7. Traube's doctrine, according to these facts, does not, therefore, appear to be the expression of physiologico-pathological phenomena.

At one of the last meetings of the Academy of Medicine, M. Piorry occupied almost the entire sitting by a paper on the nature of cholera. M. Piorry proposes for the future to substitute for the term "cholera" that of "indiosis" (Indian poison). On this latter term are formed the words indiosæmia (alteration of the blood), indiosigastria, and indiosentery; the former refers to the lesions of the stomach, and the latter to those of the intestines. Finally, M. Piorry proposes to give the name indiosic hydrenterorrhœa to the serous diarrhœa of cholera; and the term indiosic anhydræmia to the deficiency which results from it. As for the treatment, M. Piorry is of opinion that the nature of cholera being still involved in obscurity, the disease can only be combatted by hygienic and medical precautions. For the gastric and intestinal lesions, he recommends emetics, purgatives, ingestion of large quantities of water, in order to facilitate the evacuation of the poison. For the serous diarrhœa, he prescribes warm baths, frictions, blisters, and alcohol in small doses.

In one of my recent letters, I mentioned that a project of legislation had been proposed at the National Assembly for the protection of infants and children of more advanced age. The commission charged with the examination of this proposition has just terminated its labours, and the originator of the project, M. Theophile Roussel, a deputy and member of our profession, who was nominated reporter, has published a very curious document on this grave question. Without counting the casualties among the foundlings, it was stated in 1866 that 100,000 children put out at nurse died annually in France from starvation, misery, and want of care. A short time afterwards, M. Felix Baudet declared before the Academy of Medicine that France annually lost, by its own negligence or indifference, 120,000 infants under two years; and this statement has been confirmed on undoubted authority. People then became alarmed, and every one began to feel concerned about the depopulation of France, which was taking place in a progressive but steady manner, as will be seen by the following census. The total population of France in 1866 amounted to 38,067,094, about 2,000,000 more than the present population; in 1869, the population was 36,469,866; and in 1872 it amounted to no more than 36,102,921. It came out, on the other hand, from the researches of M. de Watteville, that, from 1826 to 1853, the population increased one-eighth; but, in these twenty-eight years, the births diminished one-sixth. The increase of the population was, therefore, more apparent than real, and depended on the diminution of the deaths. The increase of the French population takes place only at the rate of two or three per thousand each year; whereas in Prussia and England it is from eight to twelve, notwithstanding the extent to which emigration takes place from those countries. Another eminent statistician has shown that the mortality among children under two years all over France is very great. A newborn infant, he added, has less chance of living a week than a man of 90, and still less chance than an octogenarian of living one year. In France, in the most favourable conditions of life, more than a fifth of infants born die at the end of the first year. In Paris, where there are 54,000 births annually, more than half perish before four years; and, if we take into account the infants sent out to nurse, the mortality will be found to amount to at least half before the expiration of one year. Finally, if we classify the infants according to their origin and the conditions of wet-nursing, it is found that the mortality ranges from 75 to 80 per cent. This certainly appears fabulous; but these figures have been taken from authentic sources. The question then arose as to what could be the cause of this great mortality in France; and the Academy of Medicine has summed them up as follows:—1. The want of a system of the verification of deaths among new-born infants and children out at nurse; 2. The premature removal out of doors of infants for the purpose of declaring their birth, for baptism, and for placing them at nurse; 3. The absence of measures to enforce vaccination; 4. The want of some legislation regarding baby-farming, and of proper administrative and medical surveillance of the nurslings; 5. The persistence, particularly in the provinces, of vicious practices and of prejudices, which ignorance keeps up, as to the proper care of infants and premature alimentation.

In France, as in England and elsewhere, the respective authorities and the public in general are just now taken up with the question as to the most suitable manner of disposing of their dead, as, in large cities like London and Paris, these occupy so much ground as to become an embarrassment to the living. To obviate the inconvenience of overcrowding, the different Governments of France have established cemeteries outside the walls of the city, or rather, as far as possible from the centres; but the space allotted to the dead and the living, however far apart they may have been originally, soon unite, and, in course of time, they are obliged to seek other ground for the burial of the dead. This removal of the cemeteries at a distance from town is attended with great inconvenience for the proper performance of the usual funeral ceremonies practised in Christian countries. But, besides these considerations, there are others of equal, if not of greater, importance which ought to be taken into account; I refer to the public health.

With the exception of a few of the old school, or *routiniers*, it is admitted by all hygienists that the situation of churchyards or cemeterics in the midst, or even in the vicinity of, living populations must be prejudicial to their health. It is this grave question that has led the public mind to the consideration as to the expediency of resorting to the ancient mode of disposing of the dead by incineration or cremation. But, although this question is being agitated in France, or rather, in Paris, I do not think that the French will readily take to cremation, as, notwithstanding their revolutionary spirit, they are great *routiniers;* besides which, if they have no respect for anything in this world, they have great veneration for the dead; and nothing will convince them that cremation will not tend to abolish this sentiment, and the religious rites proceeding from it.

You have, doubtless, heard of the great poison case at Saint Denis by a herbalist, who is now awaiting his trial with the serious charge of having poisoned his wife with corrosive sublimate. The deceased, it is reported, is the second wife of whom he disposed in this way. It appears he administered the drug in minute doses with the food; and he adopted this mode of poisoning with the hope of escaping detection, as he supposed that, in administering it in this way, it would produce the desired effect without leaving any trace on the body of his victim. But the lesions that were discovered at the necropsy of his last victim were proved to be those produced by corrosive sublimate. When this fact was brought to his notice, he said, with reference to the lesions in the throat, which somewhat resembled those of diphtheria, that both his wives had died from that disease; but the unhappy man was ignorant of the fact, that, if diphtheria produced certain lesions in the throat, it certainly did not produce ulcerations in the œsophagus and intestinal canal such as were found in the case under notice.

CONSTANTINOPLE.

[FROM AN OCCASIONAL CORRESPONDENT.]

The Heat of the Weather.—Types of Disease.—The Plague.—Unsanitary State of Constantinople.

THE heat at the present time is extremely oppressive, summer having come upon us very suddenly, the thermometer standing, during the greater part of the day and night, at 80 deg. Fah. A great number of cases of intermittent fever have occurred amongst the waterside population living on either side of the Bosphorus and Dardanelles, but fortunately of a more or less benign nature, and, as a rule, readily yielding to treatment; the remedy most successful, and universally used, being the hypodermic injection of quinine.

The types of disease met with, as usually recognised by the local practitioners of the town, are simple, typhoid, and remitting intermittent, the latter being by far the most rare, the temperature subjecting itself to the same diurnal fluctuations as an ordinary quotidian or tertian, with this difference, that, during the early part of the disease, it never sinks to normal, the minimum temperature observed being, as a rule, from one to two degrees above the thermal line of health; and, furthermore, has less cerebral disturbance than the typhoid, and more constitutional exhaustion than the simple form.

I am very glad to state that the plague has, during the last week, sensibly decreased in the neighbourhood of Benghasi, Bagdad, and surrounding districts. We are expecting shortly the usual summer visit of the Viceroy of Egypt, who, before arriving here, intends paying a visit and drinking the waters of Vichy, for the sake of his health. which is somewhat below par.

A sanitary conference has been sitting in the Austrian capital. It would indeed be well for us, in this unhappy city, if we could have a sanitary conference of our own, or a municipal government sufficiently energetic, and with powers plenipotentiary to cleanse and remove the loathsome impurities, masses of decomposition, and filth, which are allowed to putrefy in the ways, streets, and alleys, giving rise to the most noxious and fetid of putrescent smells, which in themselves are enough to produce plague and cholera amongst us. As is well known, we possess neither drains, sewers, sufficient water-supply, nor scavengers, the scavenging being done by canine contractors—the native dogs, who prowl night and day through the streets and purlieus, devouring the offal and various excreta cast out from the houses into the open. And it is the dogs we have to thank that we are not poisoned by our refuse, the quantity removed being equal to their digestive capabilities. If it were not for the inherent bodily cleanliness of the Osmanli, as far as personal ablution is concerned, extreme temperance, and regularity of living, combined with a climate one of the most salubrious in the world, I fancy that, after the first visitation of cholera, the politics, as far as the living Turk is concerned, would cease to give trouble to the European *diplomate*. The medical commission, which is *en route* to investigate the cause of the outbreak of plague at Benghasi, has been unfortunately detained for several days at Canea. The natives at Damascus, like ourselves, are complaining bitterly of the shameful sanitary and hygienic condition of the town and surrounding neighbourhood, which, from want of government help and pecuniary assistance, they are themselves unable to remedy.

CORRESPONDENCE.

RECENT RESOLUTIONS OF THE GENERAL MEDICAL COUNCIL.

SIR,—I have no doubt that the majority of teachers and students will agree with the resolutions passed at the recent sitting of the Medical Council: the teachers, with the resolution referring to class-examinations; and the students, with that referring to the limitation of the area of examination in the subjects of botany, zoology, chemistry, and materia medica.

Having recently passed through the medical curriculum, I have no hesitation in saying that the limitation of the area of examination in these subjects is very desirable, and I would almost add even that of teaching. I am sure a course of lectures on these subjects could be arranged so as to suit the requirements of the different examining bodies, be interesting and instructive, and also prove of great service in after-life. At the present time, this depends on the teacher; he naturally taking up, and devoting the most of the session to, that portion of his subject with which he is most familiar. I believe that three months' reading of a good text-book is of far more benefit to students than a course of lectures from *some* of our professors. Still I, for one, should be sorry to see the lecture-system abolished. I think that well selected lectures are of great assistance, both as regards acquiring a knowledge of the subject, and as an aid to the examinations.

If a limit of area of examination be put on these subjects by the examining bodies, the teacher will find it to his own interest and to the benefit of his class to arrange his lectures accordingly, without necessarily limiting his teaching; for, if his lectures be instructive, he will not fail to secure attendance to the end of his course.

With regard to class-examinations, we have reason to hope that they will be of very great service to students. The majority of good men now do not fail to attend and appreciate them, both for the merit they obtain and the assistance they render them in preparing for the final ordeal before an examining board; yet there are many good men who have a diffidence in answering before their fellow-students. Speaking from my own experience, both oral and written class-examinations are of the greatest service; and I think the resolution of the Council is a step in right direction.

The test-examination spoken of by Dr. Mackey in his letter on August 8th is good in principle, but I do not think it can be always carried out. If a student attend regularly the lectures for which he has paid a fee, I do not see how a teacher can refuse to sign his certificate of attendance or schedule. It is not for teachers to pass or reject candidates, but for the examining boards. I am well aware that this plan is adopted at most of our English schools, and in some instances with success; but it is for the benefit of the school, and not for the good of the student. Many, however, have been sent up, who have failed to satisfy the examiners; while others again have passed, who were allowed to go as doubtful candidates.

The Apothecaries' Company some time ago required of candidates for their licence a certificate stating that the candidate had attended the class-examinations in the different subjects. It would be interesting to know the result of this requirement.

In conclusion, allow me to say that I am pleased to see the recent resolutions of the Council, and hope they will prove a step in the right direction. I am, etc.,

WILLIAM BERRY, M.R.C.S.Eng., L.R.C.P.&S.Ed.

Wigan, August 10th, 1874.

TREATMENT OF OUT-PATIENTS.

SIR,—Absence from town has prevented my seeing until now a letter with the above heading in the BRITISH MEDICAL JOURNAL of July 25th, in which a reflection is cast upon the treatment of out-patients at St. Thomas's Hospital. The case of caries of the occipito-atloid articulation, upon which this is founded, was one of such obscurity and interest, that I thought it only right that the Registrar, Mr. Osborn, should report it; but I am sorry he omitted to mention that the case was under my care, and was seen by me upon the occasion of his being accepted as an out-patient. Your correspondent must have seen but little of such cases, as he thinks they ought to be easily diagnosed. It is easy enough to obtain a history of something pointing to the nature of the malady, after *post mortem* examination has revealed the character of the disease. But the boy in this case gave little or no information; and any one accustomed to out-patient practice knows that a large number of cases apply with stiff neck and enlarged cervical glands from pediculi, and in this instance the pediculi were evident. I would refer your correspondent to a case reported in the *Lancet* of this week for a very similar obscurity of symptoms with equally extensive disease.

The system upon which surgical out-patients are seen at this hospital is, that they are at first seen by the resident assistant-surgeon, who gives to the more important cases, or those requiring general treatment, letters to admit them to the assistant-surgeon of the day. The other cases, if fit, receive cards, and are passed into the casualty room, where the house-surgeon examines them with his dressers. In my own *clinique*, each new case is given to a dresser to diagnose, and then examined and treated by myself. This boy was, therefore, seen by the resident assistant-surgeon, a dresser, and by me. This system ensures every applicant being seen first by a highly experienced officer, the resident assistant-surgeon, and afterwards treated by competent authorities. It seems to me to be a carefully organised plan, and likely to avoid the dangers which your correspondent is somewhat over-anxious to attack.

It will be obvious to most persons that the lotion, which your correspondent, Mr. Hardy, thinks accelerated the boy's death, was a wash for the head, and not intended to cure some swollen glands by friction. It is quite possible to injure a cause by injudicious attacks; and I hardly think that your correspondent has been much more fortunate in showing up the injury done to out-patients when he instances the use of quinine and iron in a case of hæmoptysis, and after a week's treatment by gallic acid and opium, "probably by one of the students", at University College Hospital.

I am, etc., W. W. WAGSTAFFE.

Palace Road, Albert Embankment, August 11th, 1874.

THE USE OF THE ASPIRATOR.

SIR,—Mr. Godrich in your last number directs attention to some imperfections in the aspirator which should, I think, especially be borne in mind in its employment for the removal of collections of fluid from the pleura. The use of the aspirator with a pointed cannula in recent pleural effusions is attended with a very positive danger of the kind pointed out by Mr. Godrich; viz., as the fluid is withdrawn, the lung expands and comes into hazardous proximity to the point of the instrument, and, with the paroxysmal cough which almost always occurs towards the end of the operation, is very apt to become lacerated. The use of a double needle, such as that suggested by Mr. Godrich, would obviate this danger; which, however, may be perhaps more conveniently avoided by using a trocar such as was made for me some few years ago for another purpose. This is a simple and inexpensive instrument; the trocar working through a padded collar or "stuffing-box", and the cannula having a single branch, which can be connected with tubing to form a syphon, or attached to an aspirator. The trocar is simply withdrawn beyond the branch of the cannula through which the fluid escapes.*

Another danger in the use of the aspirator arises from the employment of too great a suction-power. Any one who will take the pains to test as I have done the force actually used, and who will then consider what the effect of this powerful *cupping* action must be upon surrounding parts, especially those within the chest, will be very cautious in its employment. The aspirator is merely a suction-pump; and there is no necessity, in paracentesis of the chest at any rate, to use more force at any one moment than that induced by the production of slight rarefaction of air in the receiver. The fluid, on its removal, is frequently seen to become frothy from the disengagement of gases within it; this may be harmless, but it is not desirable. If the lung will not expand with the forces brought to bear upon it by the removal of the fluid, nothing but mischief is likely to follow the employment of greater power. This question is ably touched upon in another aspect by Dr. Russell of Birmingham, at page 173 of the same number of the JOURNAL.

That these dangers are not theoretical ones, I can affirm from cases that have come within my own knowledge; and my object is to show how easily they may be avoided. I am, etc.,

R. DOUGLAS POWELL, M.D., F.R.C.P.

Henrietta Street, August 8th, 1874.

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* Mr. Hawksley of Blenheim Street, Bond Street, is the maker of this instrument. It is a slight modification of that known as "Thompson's trocar".

SIR,—I see, in the *Lancet* of last week, that M. Béhier of Paris has been struck with the same objection to the ordinary aspirator-needle as I have myself, and in reference to which my communication, addressed to you on the 27th of last month, appeared in last week's JOURNAL.

The paragraph says: "When the fluid has been evacuated by the exhausting apparatus, the lung, in expanding, may strike against the hard and sharp cannula." To prevent this, M. Béhier evidently employs some such arrangement as I suggested; for the paragraph goes on to say: "He introduces a cannula of soft metal into the ordinary tube." It neither says how it is introduced, nor what arrangements are made to prevent the entrance of air; but his needle is evidently constructed on much the same principle as mine—namely, that of one tube sliding within another. I do not see the advantage of the inner tube being of soft metal, as I do not think an expanding lung would be able to bend a metal tube, however soft. At all events, the paragraph shows that the drawback I pointed out to the present needle is a real one, and has doubtless been seen by many more than M. Béhier and myself.

That my needle meets the difficulty, there can be no doubt; nor do I think any simpler arrangement can well be made.

I am, etc., ALFRED GODRICH, M.A., M.R.C.S.

Fulham Road, August 10th, 1874.

SIR,—In the BRITISH MEDICAL JOURNAL of August 8th, Mr. Godrich describes an aspirator having a guarded trocar, which Messrs. Blaise have made at his suggestion, with a view to avoid the hæmorrhage which occasionally occurs when an unguarded trocar is used. I have no doubt that the instrument Mr. Godrich now introduces to the notice of the profession is an efficient one, and that the manufacturers deserve the encomiums he awards. It should, however, be known that the idea is not original. Both Messrs. Weiss and Arnold introduced aspirators with guarded trocars many months ago; and we have had one in constant use at this hospital for more than twelve months, which was supplied by Messrs. Krohne and Sesemann.

With regard to the hæmorrhage spoken of by Mr. Godrich, I have only noticed it in paracentesis thoracis; and we find that in this operation, notwithstanding the "guarded" trocar, more or less hæmorrhage occurs in almost every case. This hæmorrhage is probably due to rupture of the delicate vessels of the nerve-membrane which forms on the pleural surfaces in cases of pleuritic effusion, and not to the lung being wounded by the point of the trocar, as has been suggested.

I am, etc., GEORGE BROWN,

House-Surgeon to the North-Eastern Hospital for Children.

August 18th, 1874.

THE DISCOVERY OF THE MECHANISM OF FLIGHT.

SIR,—Absence has prevented me from sending you at an earlier day the following remarks. I must altogether decline to enter into controversy with Dr. Browne, who is clearly not competent to form a calm judgment in the matter. I adhere to my former views, and may briefly maintain them.

I do not deny that Dr. Pettigrew made very admirable anatomical researches into the structure of the organs of flight; but I do assert that the experimental investigation by Professor Marey led to results differing from those arrived at by inference from anatomical facts by Dr. Pettigrew. Dr. Pettigrew, in his candidature for the Edinburgh Chair of Physiology, has presumed upon Professor Marey's courtesy, by referring to a letter in which the latter is stated to have acknowledged Dr. Pettigrew's priority. To my certain knowledge, however, Dr. Pettigrew is acquainted with the following passage from Marey's recently published *La Machine Animale*—a book forming one of that series in which Dr. Pettigrew esteems it so important a qualification for a physiological teacher to write, that he gives the complete list of authors in his printed book of self-recommendation addressed to the electors to the Edinburgh Chair of Physiology. The passage is: "Malgré cette concordance apparente, notre théorie et celle de M. Pettigrew diffèrent radicalement l'une de l'autre." It is hardly possible here, again, to go into the details of the discussion as to the particular views of Professor Marey and Dr. Pettigrew. As recently as January of this year, the whole matter was gone into by thoroughly competent writers in both the *Athenæum* and *Nature*, and the utter fallacy of Dr. Pettigrew's pretensions was simply and forcibly exposed in reviews of his book on *Animal Locomotion*. Those reviews are not included in the series reprinted by Dr. Pettigrew in support of his candidature for the Edinburgh chair, whilst many from mere literary journals are, the writers of which were not likely to be acquainted with the real state of affairs. This is not candid on Dr. Pettigrew's part. "The figure-of-8" movement described by Dr. Pettigrew is quite a different thing from that observed by M. Marey. Dr. Pettigrew's diagram represents the twisting of the wing on its axis, but the arrows pointing out the direction of movement ought to be reversed! Professor Marey's figure-of-8 is described by the tips of the wings advancing as they descend, and again advancing after they have receded round the lower part of the 8. There is no question as to which of the two authors is right; for Professor Marey's observations relate to experiments self-recorded by the "graphic method", of which he is so great a master. Dr. Pettigrew has asserted that Marey has only confirmed what he (Dr. Pettigrew) had previously stated; which is directly contrary to the fact.

I must beg persons who are interested in the matter to look at the reviews above mentioned and at the author's original works.

As to the fact that the French physiologists do not eagerly vindicate Marey's claims, I regret to have to say that the cause of their indifference is well-known. Jealousy is very rife amongst the physiologists of Paris; and Marey is too original and too able a man to please his elder colleagues. But, as they well know, he must in the end attain the full honours and distinction which are his due. Meanwhile, his compeers and competitors are not unwilling to exalt Dr. Pettigrew, if, by so doing, they can do even a little damage to Professor Marey.

Let me say, in conclusion, that I am not one who would draw a sharp line between anatomists and physiologists. I should wish to see them each possessing more than is usual the knowledge and method of the sister science. Many a man of sound physiological knowledge and original tendencies in that direction has in this country been obliged to confine his attention to morphological studies, owing to the absence of physiological laboratories. But I distinctly object to an anatomist basing his claim to a physiological chair upon claims to a physiological discovery, with which his only connection in reality is, that he has made a bad guess at an explanation of anatomical arrangements which experiment has not verified but refuted.

I write solely with the desire of exposing baseless pretensions. The signature of my name should add no weight to what I have had to say; for I have not offered an opinion, but have referred to facts, and, by remaining anonymous, I conceive that I shall preserve the discussion from useless personalities.

Let me beg one favour of those who consider this matter as one of right and wrong, of justice and injustice. It is, that they will read Dr. Pettigrew's paper in the Linnæan Society and his book, and will also read Professor Marey's various papers and his last work, *La Machine Animale.* I am, etc., A PHYSIOLOGIST.

HARD WATER AND LITHURIA.

SIR,—I have just read the able Address in Surgery, delivered at the Association meeting by Mr. Cadge, and am glad that one of our best authorities on stone acknowledges that lime in drinking-water is a cause of calculus. I observe that Mr. Cadge, in his experience, has not found that lime occasions the oxalic or the phosphatic diathesis, and that, among other questions, he asks what reason can be assigned for the striking correspondence between hard water and lithuria?

In my paper upon Calculus, and the Use of Soft Water in its Prevention, presented to the Association at the meeting in London in 1873, I stated that I had found oxaluria and phosphatic deposits to occur most frequently in those who had been born in a soft water rural district, and had afterwards removed to a hard water urban one. I also ventured the opinion that hard water tended to produce indigestion by neutralising the acid of the gastric juice, and thus, by retarding digestion, encouraged acetous fermentation and malassimilation, with consequent increased acidity of the blood and urine; hence uric acid deposit and uric acid calculi. I am, etc.,

JOHN C. MURRAY, M.D.

Newcastle-on-Tyne, August, 1874.

MEDICAL EVIDENCE IN COURTS OF LAW.

SIR,—The discrepancies in medical evidence in courts of law are often exaggerated, because misunderstood, by daily paper reporters, and exhibited in marked contrast by the selection of some salient point, and for an obvious purpose, by counsel. This was the case in the instance of Mrs. Loweck, referred to in the last number of your JOURNAL. There was a difference of opinion on the part of the medical witnesses as to the cause of the great feebleness evinced by the plaintiff in her lower limbs; but it was admitted by all that she had sustained a very severe nervous shock in the railway collision. Nine months had elapsed from the date of the accident, and the patient was described as becoming feebler and more emaciated. Her usual pulse was weak and 120; her hands and feet were habitually cold; and the organic functions generally were deranged. Some of these asserted facts were discredited by the opposing medical witnesses, and others were supposed to admit of a different explanation.

My particular reason for troubling you with this note is to advocate, wherever it is practicable, conference between medical witnesses of opposing sides in these compensation-trials. The present instance exemplifies the advantage which would accrue from this practice. The evidence, as reported, and as you correctly observe, is conflicting and contradictory; but this might have been materially qualified, if not entirely avoided, by a previous interchange of views, without any sacrifice of truth or even compromise of opinion. For I believe we all agreed that the plaintiff was still suffering from the consequences of the severe shock she had sustained; and, though the witnesses on her side regarded the condition of the lower limbs as attributable to commencing structural change in the cord, which was denied by the defendants' witnesses, I apprehend the real divergence of opinion as to the gravity and issue of the case existed in the interpretation of her *general* condition and the prognosis founded thereon. Certainly it was from these data, as I stated to the judge, that my own unfavourable prognosis was formed. I am, etc., F. LE GROS CLARK.

August 17th, 1874.

THE PHARMACEUTICAL CONFERENCE: PRESIDENT'S ADDRESS.

SIR,—I very much regret that your remarks on what I must now consider an unfortunate sentence of my Presidential Address, did not come before my notice until this day. I trust, however, it is not too late to endeavour to remove the unfavourable impression they must have occasioned on the minds of the readers of your influential JOURNAL.

The "advice" I referred to was not medical advice. The idea of its being so understood did not occur to me, or I should certainly have qualified it with an appropriate adjective.

I was addressing pharmacists, not prescribing chemists—a class of which I have as great a horror as you can have, and, if you take my address as a whole, I think you must admit that it pointed clearly to a distinct separation of the functions of the prescriber and the dispenser. I claimed for the pharmacist the application of the science of chemistry to drugs and to disease, leaving by implication the whole treatment of disease to the medical practitioner.

Of the kind of "advice" that was in my mind at the time of writing I will give you a few examples. A person brings to you, on the plea that his medical adviser is not accessible, a bundle of prescriptions of which he knows nothing. You are asked to select the one written for a special purpose; or, perhaps, are required to point out how the dose should be altered for difference of age or circumstances. Disinfectants are required for the house, etc.; deodorants for the drains; a long conversation ensues, and the "advice" is given. Or, perhaps, the pseudo-customer is anxious about the water-supply, its quality, source, etc.; or, again, about some abnormal appearance in his secretions. He inquires how much quinine he might put in a bottle of sherry, and how much ought to be given to each of the members of his family.

I might repeat fifty such queries that have been addressed to me, the customer eventually sailing away under cover of some trifling purchase, and getting his more expensive materials at the store. It is, of course, very aggravating to have one's time wasted in that manner. It is, in fact, the obtaining of information under false pretences. I think, then, I was justified in saying that chemists are peculiarly liable to be injured by "gratuitous brain-sucking", and in cautioning my brethren accordingly.

Finally, I might be allowed to state that the main object of the Pharmaceutical Conference, which is but an off-shoot of the Pharmaceutical Society, is the elevation of the pharmacist *in his legitimate sphere*, and that nothing could be farther from the intention of its promoters than the encouragement of irregular medical practice.

I am, etc. THOMAS B. GROVES,
President of the British Pharmaceutical Conference.

TREATMENT OF PUERPERAL FEVER.

SIR,—When I had read Dr. J. Matthews Duncan's address at this year's meeting of the British Medical Association, I thought it well to send you for publication the following sketch of the treatment of a case of puerperal fever. Twelve years ago, immediately after a severe confinement, my wife had a severe attack of puerperal fever; and so serious did it become, that the physicians in attendance gave it me as their opinion that she would not recover. When I received this announcement, I went to my study, and, after some deliberation, I settled to inject some disinfecting fluid into the uterus. Without any delay, and within the period of ten minutes, I had injected into the uterus, by means of a strong stomach-pump, slowly, steadily, and with force, a washhand-basinful of water, at 64 deg. Fahr., containing three drachms of Condy's disinfecting fluid. Within an hour after the operation, the general appearance of the patient had improved, the pulse had lessened in frequency, and the heat of the skin had diminished. I performed a similar operation the following day, with an equal quantity of water, at the same temperature, but containing only two drachms of Condy's fluid. After these operations, the patient steadily, and with comparative rapidity, made an excellent recovery.

Midwifery not being the branch of the practice of medicine I follow, I have had no subsequent case to prove either the efficiency or inefficiency of the mode of treatment I have mentioned; I, therefore, give it merely as a suggestion for others. I am, etc.,

Ben Rhydding by Leeds, August 18th, 1874. WM. MACLEOD.

ASSOCIATION INTELLIGENCE.

SHROPSHIRE SCIENTIFIC BRANCH.

THE annual meeting of the above Branch will be held in the Natural History and Antiquarian Museum, at Shrewsbury, on Wednesday, September 9th, at 1.30 P.M.; WM. EDDOWES, Esq., sen., President.

Papers on Hydrophobia and Chorea will be read, and others are promised.

The dinner will take place at the George Hotel.

SAMUEL WOOD, *Honorary Secretary*.

Shrewsbury, August 14th, 1874.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ST. ASAPH.—Dr. J. Lloyd Roberts, Medical Officer for the St. Asaph Union, draws special attention to the high death-rate of children from diarrhœa, and also to the large number of deaths which are uncertified. Out of a total of 144 deaths, 45 were of children under five years of age; whilst of that total number of deaths, 56, or 38.8 per cent., were returned as not being certified by a medical practitioner.

LEEDS.—Dr. Goldie's report on the sanitary condition of his district during July is not a satisfactory one. The number of deaths was 702, being 199 in excess of the corresponding month of last year. The excess has been caused chiefly by diarrhœa. The principal zymotic diseases caused in all 237 deaths, being at the rate of 11.08 per 1000 of all ages. The fatality of diarrhœa amongst children under five years was somewhat remarkable, there having been 147 deaths, 127 of which were of infants under one year. Concerning this loss of infantile life, Dr. Goldie gives the following sound advice: "I would suggest to those having charge over the young, that early treatment is essential. For the most part, it will be seen from this report that the victims are young children; a few hours suffice, with acute diarrhœa, to lay them quite prostrate. The stomach and bowels become so irritable in a short time, that if treatment is not had recourse to early, the time for doing good is soon passed by, and death results. I feel I am not asking too much when I would commend parents to seek at once the most skilled and qualified advice for their children, when suffering from disease of a dangerous nature like diarrhœa. My attention is daily attracted to the serious neglect on this point, so many deaths are entered on my records, 'Not certified', which means either no medical attendance, or that it has passed through the hands of some unqualified person. I am of opinion more discretion and care on this point would lead to fewer deaths."

MILITARY AND NAVAL MEDICAL SERVICES.

ANALYSIS OF WATER ON BOARD SHIP.—On the recommendation of the Director-General of the Naval Medical Department, the Lords of the Admiralty have ordered that in future all men-of-war carrying a medical officer shall be supplied with an apparatus by which the water supplied for the use of the ships' companies can be subjected to analysis.

THE ARMY MEDICAL SERVICE.—Subjoined is a list of army medical candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley.

		Marks.			Marks.
1.	Ward, L. B.	4841	9.	Smith, J. A.	3435
2.	Gallwey, T. J.	4615	10.	Martin, J.	3116
3.	Miller, W. B.	4290	11.	Young, F. S.	3105
4.	Hickson, G. B.	4265	12.	Greene, J. J.	3105
5.	Jagoe, B. R.	4085	13.	M'Creery, N.	3062
6.	Prendergast, J.	4072	14.	Gormley, J. A.	3039
7.	Pratt, W. S.	3780	15.	Foss, J. E. W.	2915
8.	Smyth, C. C. H.	3568	16.	Turner, C. P.	2887

The following is a list of the gentlemen who competed successfully for appointments as Surgeons in H.M.'s Army Medical Service at the competitive examination held at the London University on August 10th, 1874.

		Marks.			Marks.
1.	Harrison, C. E.	2525	10.	Smith, R.	1615
2.	Wellings, B. W.	2250	11.	Gardner, R. H.	1555
3.	Trevor, F. W.	1830	12.	Campbell, W.	1545
4.	McGann, J.	1785	13.	Gardner, H. G.	1537
5.	Bourke, G. D.	1690	14.	Carter, S. H.	1525
6.	Forrester, J. S.	1680	15.	Powell, J.	1480
7.	Mullane, J.	1658	16.	May, W. A.	1422
8.	Scott, H.	1650	17.	Hoysted, J.	1395
9.	Fogerty, H. A.	1615			

INDIAN MEDICAL SERVICE.—List of Indian medical candidates, who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, August 1874.

		Marks.			Marks.
1.	*Leckler, H. M.	5868	10.	Malcolm Smith, J. G.	4465
2.	Corbett, J. L.	5626	11.	Lancaster, J.	4450
3.	Browne, S. H.	5385	12.	Yeld, H. P.	4300
4.	Mair, E.	5339	13.	Fullerton, J. C.	4075
5.	Benson, P. H.	5208	14.	Warden, C. J. H.	4055
6.	Armstrong, J.	5125	15.	King, W. G.	4003
7.	Warder, R.	4825	16.	Patterson, D. A.	3980
8.	Dawson, L. R.	4798	17.	Wilkins, J. S.	3908
9.	Shircore, J. C.	4650	18.	Barren, W. A.	3602

THE ASSOCIATION AND THE PUBLIC MEDICAL SERVICES.

SIR,—It is hardly possible to overrate the importance of the political weight which the medical profession is gradually acquiring through the organisation of the British Medical Association. The increase in the numbers of the Association, which the recent report of Council showed to consist now of between 5,000 and 6,000 members, and the operations of the Parliamentary Bills Committee, are daily making this influence more powerfully felt. The medical profession really had hardly any audible voice in the body politic at all before the Association acquired its present solid consistence. Other professions—the bar, the church, the combatant ranks of the army and navy, the landed and mercantile interests—were largely represented in the two Houses of Parliament; but the profession of medicine hardly appeared in the parliamentary ranks. What was wanting, and in a great degree is still wanting, inside the walls of the two Houses of Parliament, is now becoming supplied by the Association outside its walls. This was acknowledged, to a certain extent, by the Secretary of State for War lately, when, on being addressed regarding the grievances of the army medical officers, he referred to these officers having the advantage of being supported by a powerful Association—such a support as, he said, no other branches of the army possessed. It was strange that Mr. Gathorne Hardy should have forgotten, as he evidently did when making this remark, that a large portion of his own supporters in the House of Commons consisted of officers of the other ranks of the army, and that many of the combatant officers of the army, and still more numerously their relatives and friends, were members of the House of Lords also; so that the executive ranks are always present and able to defend their own interests in Parliament whenever any of their claims and privileges are brought into question. Still, though these facts were overlooked at the time by the minister, his remark served to show how the influence of the Association was making itself felt, and how it was becoming appreciated, in official quarters. In proportion as this political weight is acknowledged, the more attentively will the voice of the profession, through its representatives, be listened to, and the more the social status of every individual member of the profession must become raised. To none of the members of the profession, however, is the gain of this political standing of such direct concern as it is to the members of the profession who are in the public services. It is contrary to military rules for those who are already in the ranks of the army or navy to combine in any general complaint or representation of their grievances. If the more highly educated and better class of students decline to enter into competition for vacant commissions in the army and navy, they only make way for the entrance of students of inferior calibre, and thus the interests of the public services are sacrificed and the character of the medical profession at the same time loses ground through its military representatives. One of our contemporaries, the *Morning Post* newspaper, has lately called attention to the different manner in which the successful candidates for commissions in the Artillery and Engineers at Woolwich, in the Line at Sandhurst, and the Public Works Department of India at Cooper's Hill, are welcomed into the public service, as compared with the manner in which the successful candidates for medical commissions in the army and navy are inducted into their new positions. All such distinctions will cease when once the medical profession gains the full political influence which it is entitled to have, considering the vital importance of its functions as regards the health, happiness, and power of civilised communities—an importance which is ever increasing in an increasing ratio as the numbers and activity of the population increase. It is to the British Medical Association that the medical officers of the army and navy, and not only they, but all the members of the medical profession, must hopefully look for the acquirement of that political influence which is so essential for the maintenance of their just rights and interests; and, if the Association continue to grow and to prosper as it has done during the last few years, this expectation will not be disappointed.

I am, etc., AN ARMY SURGEON.

OBITUARY.

JOHN FITZGERALD CHARLTON, M.D.

WE have to record the death of Dr. John Fitzgerald Charlton, R.N., late staff surgeon of the Royal Marine Artillery, which took place at his residence, Phœnix Villa, Sydenham, on June 11th. Dr. Charlton was the second son of the late Captain James Wolfe Charlton, of Curratown, county Meath, Ireland. He commenced his career as a student of Trinity College, Dublin, but subsequently took his medical degree in Scotland, and was a member of the Royal College of Surgeons of England. In 1832, when the civil war broke out in Portugal, between Don Miguel and Donna Maria, he obtained a commission as assistant-surgeon to a regiment of volunteer cavalry then being raised in London, and proceeded to Oporto, where he found himself compelled to take a very active part in the defence of that city, which was besieged for nine months. He subsequently joined the flag-ship of the late Admiral Sir Charles Napier, and was present, under his command at the battle of Cape St. Vincent. On his return to England, he was appointed an assistant-surgeon in the Royal Navy, and proceeded to the coast of Africa, where he served on board H.M. ships *Dolphin* and *Wolverine*, then employed in the suppression of the slave trade. From 1841 to 1845, he was assistant-surgeon of the Royal Naval Hospital, at Chatham, and, on promotion, was made surgeon of the *Alecto*, in which vessel he proceeded to South America, and was present during the engagement and operations in the River Plate, subsequently joining H.M. ship *Comus*. After returning from South America, he completed a commission of three years on board H.M. ship *Growler*, in the Mediterranean. In 1851, he volunteered for service with the expedition in search of Sir John Franklin, and proceeded to the Arctic regions in H.M. ship *Phœnix*, for which service he obtained the Arctic medal. His next appointment was to H.M. ship *Boscawen*, in which vessel he joined the Baltic fleet during the Russian war, under the command of his former admiral, the late Sir Charles Napier. He received the Baltic medal, and the vessel subsequently became flag-ship on the North American and West Indian Station, where he continued to serve as staff-surgeon to the late Admiral Sir Arthur Fanshawe. He again returned to England in 1857, and, in a short time, was appointed surgeon of the Naval Hospital at Ascension. For his distinguished professional services on that island during a virulent epidemic of yellow fever in the fleet on the coast of Africa, he was strongly recommended to the notice of the Admiralty; and their lordships, in recognition of his services, appointed him, in 1859, staff-surgeon of the Royal Marine Artillery, to which corps he was attached for ten years, eminently esteemed and respected by his brother officers, as well as by the men of the regiment.

JOHN J. SEWELL, M.R.C.S., BRIGHTON.

MR. JOHN JOSEPH SEWELL, who died on June 8th, at his residence, Grand Parade, Brighton, in his 68th year, was born on September 30th, 1806, at the village of Forston, in Suffolk. In 1821, at the age of 16, he was apprenticed to Mr. Samuel Haward, Surgeon and Apothecary, at Halesworth, in the same county. He became a student under the celebrated Abernethy at St. Bartholomew's, from January 1827 to January 1828, and received his diploma from the College of Surgeons in June of the latter year. He also attended the medical practice and clinical lectures of the North London (now University College) Hospital in 1835. Residing and practising at Leiston, in Suffolk, he was elected a District Surgeon of the Blything Union in 1832, which office he held till 1846. In 1847, he was admitted a Licentiate of the Apothecaries' Hall. He afterwards resided in Cambridge, and at Harston, in the same county; and thence, in 1854, removed to Brighton, where he practised with much success and considerable reputation up to the period of his decease. He was appointed Medical Officer of the Brighton Dispensary in July 1859, and seven days afterwards was elected Out-door Surgeon for the Northern District of the Parish of Brighton. In 1865, he was elected Medical Officer for the same district to the Provident and Self-supporting Dispensary. The former office he resigned in 1863; the two latter he held up to the time of his death. Being of a kind and affable disposition, Mr. Sewell not only became popular, but esteemed and beloved by the poor, as well as by his richer patients. He has left a widow, one son, and two daughters (one of the latter, being also a widow with two children, residing with him at the time of his decease), to lament his loss. Let us hope that his active benevolence may bless and not injure them.

Mr. Sewell possessed talents of no mean order. He excelled in science and literature, and was a capital microscopist. His style was clear and concise, and his lectures were enriched with original thought, combined with acute observation and a touch of dry humour, which always rendered them popular and instructive. Those that recur most strongly to the memory were delivered before the members of the Royal Literary and Scientific Society at the Albion Rooms, and also before the Brighton and Sussex Natural History Society, on "The Human Skin", "Diet and Digestion", "Dinners and their Consequences", and on "Coprolites". As a member of the societies, Mr. Sewell did much to aid and extend their objects.

W. H. GOODWORTH, L.S.A.

WE have to record the death of Mr. W. H. Goodworth, L.S.A., which occurred at Hatfield, near Doncaster, on June 5th, in his sixty-seventh year. He was pupil to the late Dr. William Matthews; after which he studied at the London Hospital, and obtained his diploma in 1829. He was medical officer for two districts in the Thorne union for thirty-seven years. Ten years ago he had a fall from his horse, which fractured the acromion process; and two years ago he was attacked with paralysis agitans, which was at first confined to the injured limb, but gradually pervaded the whole body. The disease progressed slowly; but, during the last few months, the agitation was so violent as to prevent sleep. He retained the full power of his mental faculties till the day prior to his death, when coma and slight delirium closed the scene. He leaves a widow and two sons, one a student at Anderson's University, Glasgow, the other a surgeon and physician at Winterton, Lincolnshire.

BARTHOLD SCHLESINGER, M.R.C.S.

MR. SCHLESINGER, house-surgeon of St. Mary's Hospital, died of diphtheria, on July 28th, in his twenty-second year. On the previous Friday, he complained slightly of sore throat, which he took to be that form common to house-surgeons, and he therefore left London for a few days. On the Sunday, however, the symptoms rapidly increased, and early on the Monday morning he returned to town. At this time, he was evidently excited and anxious about his condition, for he called first upon two of the members of the surgical staff of St. Mary's, and then upon several surgeons in the same neighbourhood. He finally found Dr. Morell Mackenzie at home, who at once recognised the disease as diphtheria, and advised him to take rooms close by. In the afternoon he was seen by Dr. Mackenzie and Mr. Norton together, and again, during the evening, by both those gentlemen. The palate, uvula, tonsils, etc., were at that time much swollen, and covered by the diphtheritic patch, but the breathing was good. Towards morning, respiration became difficult, and Dr. Mackenzie was called. He immediately sent for Mr. Norton and Mr. Thornton, but, as the symptoms became most urgent, tracheotomy was performed before their arrival. About two hours after the operation, the respirations were thirty-six per minute, the pulse 146, and the temperature 104 degs. Sufficient nourishment could now be taken, but, towards evening, the swelling of the throat and tongue was so great that nothing could pass into the pharynx; beef-tea and brandy enemata were, therefore, given, and milk was injected through a flexible catheter passed into the pharynx.

The symptoms gradually grew worse, coma ensued, and death took place about two o'clock on Wednesday morning, eighteen hours after the operation. Dr. Mackenzie, Mr. Norton, Mr. Thornton, Mr. Marshall, the registrar, and the house-surgeon of St. Mary's Hospital, were in constant attendance until his death.

Mr. Schlesinger had proved himself one of the ablest students at St. Mary's Hospital. He had held the post of assistant demonstrator, and had shown considerable capability as a teacher. He possessed a thorough knowledge of French and German, and was a great reader of both English and Foreign medical literature. It was Mr. Schlesinger's intention to enter into consulting practice, and the writer feels justified in saying that more than one of the staff of St. Mary's, looked forward to acting with him as a colleague. The intelligence of his death was received with unfeigned regret by every member of the staff and by every official connected with the institution to which he was attached.

HENRY MUDGE, M.R.C.S.Eng., Bodmin.

Mr. Henry Mudge died at Bodmin on June 27th, in the sixty-eighth year of his age. He was born at Bodmin, and received his education at the old Grammar School. He became a pupil of the late Dr. W. Michell, whom he afterwards succeeded. He studied at St. Bartholomew's Hospital; and, after obtaining the diploma of the Royal College of Surgeons and the licence of the Apothecaries' Hall, spent some time in Paris. He settled in his native town, where his skill and kindness soon gained him a large practice and wide-spread reputation.

In 1853, he ceased from the more active duties of the profession, and devoted much of his time to the promotion of social and political reforms. All that tended to promote the moral and physical amelioration of the people received from him the greatest aid. In the early years of his practice, seeing the great evils attendant on the drinking customs of the country, he took a prominent and firm part in introducing the principles of total abstinence from alcoholic liquors. He was one of the first to practise it, and that at a time when to do so required a much a greater amount of moral courage than at the present day. He lived to see many of his works established successfully, and died universally esteemed and respected.

MEDICAL NEWS.

University of London.—1874. First M.B. Examination. For Honours.—Anatomy.

First Class.

Keetley, Charles Robert B. (Gold Medal), St. Bartholomew's Hospital

Physiology, Histology, and Comparative Anatomy.

First Class.

Tirard, Nestor Isidore Charles (Exhibition and Gold Medal), King's College
Carrington, Robert Edmund, Guy's Hospital

Second Class.

Keetley, Charles Robert Bell, St. Bartholomew's Hospital

Organic Chemistry, and Materia Medica and Pharmaceutical Chemistry.

First Class.

Carrington, Robert E. (Exhibition and Gold Medal), Guy's Hospital
Keetley, Charles R. B. (Gold Medal), St. Bartholomew's Hospital. (Obtained the number of marks qualifying for the Exhibition.)
Burton, Samuel Herbert, University College

Royal College of Surgeons of England.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted members of the College at a meeting of the Court of Examiners on July 30th.

Frederick S. Alford, Hampstead; Charles W. Belfield, Bristol; George W. Bell, Hatfield; George H. Bishop, Harrow Road; John J. Byrne, Manchester; Bolton G. Corney, Kensington Road; Thomas H. Haslam, L.S.A., Finboro' Road; Lewis Jones, M.B.Dubl., Aberystwith; Wm. A. Kennedy, Newcastle-on-Tyne; John J. Newman, Barnsley; Edward Noott, L.R.C.P.Ed., Dudley; Arthur Norton-Taylor, Maida Hill; John B. Sincock, L.S.A., Scorrier, Cornwall; Wm. Speirs, L.R.C.P.Ed., Glasgow; Samuel J. Thomson, L.S.A., Ramsgate; James H. Turtle, L.S.A., Chatham; Herbert E. Williams, Tavistock.

Of the 190 candidates examined during the fortnight, 44 failed to satisfy the Court of Examiners, and were referred to their professional studies for six months. This is the last examination for the membership of the College until November.

King and Queen's College of Physicians in Ireland.—At examination meetings of the College, held on Tuesday, Wednesday, and Thursday, August 4th, 5th, and 6th, 1874, the License to Practise Medicine was granted to—

Dane, Arthur Henry Cole
Hogan, Edward Michael Angelo
Vesey, Agmon Blathwayt

The License in Midwifery was obtained by—

Gordon, Samuel Thomas
Vesey, Agmon Blathwayt

The License to Practise as a Midwife and Nursetender was granted to—

Greenstreet, Miss Ellen M.

Miss Greenstreet is the first candidate who has presented herself for examination under the new by-law of the College.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 6th, 1874.

Brady, Owen Cornelius. Vernon Road, Birmingham
Mitchell, Charles Joseph Carter, Kempton, Bedford

The following gentlemen also on the same day passed their primary professional examination.

Calcott, Lewis Berkeley, St. Bartholomew's Hospital
Haselden, Robert, St. Bartholomew's Hospital
Parkinson, Sidney George, St. Mary's Hospital
Pearless, Walter Relf, St. Bartholomew's Hospital
Upton, Alfred, St. Bartholomew's Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practice, on Thursday, August 13th, 1874.

Harle, William John Vincent, Eagle Villa, Hackney
Horne, John Fletcher, Clarendon Road, Leeds
Snook, William Ernest, Colyton, Devon

The following gentleman also on the same day passed his primary professional examination.

Lucas, Arthur, Middlesex Hospital

Royal Colleges of Physicians and Surgeons, Edinburgh: Double Qualification.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

William Deane Penier, Cork; Cecil Osburne, Cork; George H. Bentley, Bombay; John Hugh Maclean, Edinburgh; George Taylor Schofield, Yorkshire; William Perrin Brown, Warrington; Mackintosh A. J. Collie, Morayshire; Thomas Gallimore, Ashwood, Longton; Archibald Alexander Hamilton, India; James W. M'Glade, Edinburgh; Hargreaves H. H. Hanson, Leicester; Walter T. Ramsden, Batley; William Henry Vickerstaff, Macclesfield; and John Mitchell Carr, County Armagh.

The following gentlemen passed their final examination, and were admitted L.R.C.P.E. and L.R.C.S.E.

Richard Wilkins, Madras; Wm. O'Hara, India; Richard Stratheden Dawson, India; George Benjamin Powell, Dublin; John Francis Herring, South Wales; Reginald Hartley, Yorkshire; Hugh Alexander Auchinleck, Strabane; William M'Iver, County Tyrone: Marc d'Espaignet, Mauritius; Thomas Douglas, Northumberland; Fray Ormrod, Lancashire; John Edward Allen, Cheshire; James Bruce Ronaldson, County Cork: Rowland Cooke O'Meara, Dublin; Edward William Thomson, East Indies: John Walker Smyth, County Antrim; John Frederick Johnson, Monaghan; Nicholas Leader, County Cork; Walter Kavanagh Verling, County Cork; David John Ross, Galway; Thomas Horne, Whitby; Thomas William Myles, Limerick; Henry George Horace Naylor, Calcutta; James William Whiteford, Canada; Patrick Joseph Hayes, Cork; James Rutherford Morison, County Durham; and William John Vereker Bindon, Cape of Good Hope.

Royal College of Surgeons, Edinburgh.—The following gentlemen passed their first professional examination during the July sittings of the examiners.

Alexander Graham, Tobermory; Charles Thornton Champneys, Glasgow; Chas. H. Richardson, Appleby; and John Veitch Wallace, Fifeshire.

The following gentlemen passed their final examination, and were admitted L.R.C.S.E.

William Howlin, County Dublin; Edward James Nix, London; Edward Leopold Baker, Somerset; David Alexander, Forfarshire; Arthur Robert Campbell, Hawick; Hugh M'Gregor Forbes, Fifeshire; John Farquhar Lloyd, Monmouthshire; and George Bleek Butter, West Indies.

University of Edinburgh.—On August 1st the following candidates were introduced by Professor Balfour, and had successively the degree of Doctor of Medicine (under the new statutes) conferred upon them—[*** indicates that the candidate obtained prize—gold medal—for dissertation, and * that the dissertations were commended].

Daniel Loftus Beckingsale, Isle of Wight, M.B. and C.M., 1872; *Robert Blair, Scotland, M.B. and C.M., 1870; * Henry Macdonald Church (B.Sc.Edin.), Scotland, M.B. and C.M., 1872; *Justyn George Durham Douglas, Canada, M.B. and C.M., 1871; Alexander Dunbar, England, M.B. and C.M., 1871; Robert Taylor Sumner Eagar, England, M.B., 1871; ***James Foulis, Scotland, M.B. and C.M., 1872; *Chas. Gowan, Scotland, M.B. and C.M., 1871; Charles Frederic Hutchinson, England, M.B. and C.M., 1872; Robinson Jas. Hutchinson, England, M.B. and C.M., 1871; Walter Robt. Spence Jefferiss, Scotland, M.B. and C.M., 1870; *Wm. Thomas Law, England, M.B., 1872; Charles Macfie, Scotland, M.B., 1870; *Wm. Mansell-Macculloch, Guernsey, M.B. and C.M., 1872; Frederic Neild, England, M.B. and C.M., 1872; Henry Alleine Perkins, Tasmania, M.B. and C.M., 1871; Orlando Reeves Prankerd, England, M.B. and C.M., 1869; David Ridpath, Scotland, M.B. and C.M., 1865; Edmond West Symes, England, M.B., 1871.

The degrees of Bachelor of Medicine and Master in Surgery were conferred upon the following candidates [** indicates that the candidate passed the examinations with first-class honours, and * indicates that he passed with second-class honours.

Thomas Osmond Fabian Alsop, Australia; Wm. Andson, Scotland; Frederick Wm. Barry, Scotland; George Thomas Beatson (B.A.Cantab), Ceylon; John C. Bell, Scotland; Edwin Denny Berton, New Brunswick; Wm. John Brook, Scotland; **James Murdoch Brown, Scotland; Reginald Kennedy Casley, England; Jamieson Cockburn, England; Alex. Robert Coldstream, Scotland; Holland John Cotton, England; James Brown Crabbe, Scotland; Christopher Crawford, Scotland; **Daniel John Cunningham, Scotland; Hamlet Lloyd Davies, Wales; Francis Vardy Davison, Monte Video; Geo. Henry Horsfall de Wolfe, Nova Scotia; Arthur Drysdale, Scotland; James Walker Edgar, Scotland (received the degree in April 1874); Thomas David Fabian Evans, England; *James Cossar Ewart, Scotland; Wm. Fairbanks, England; Albert Field, Barbadoes; Alexander Duncan Fraser, Scotland; Robert Alexander Gibbons, Canada; Wm. D'Oyly Grange, West Indies; Alexander Stevenson Greenway, England; John Jamieson Gunn, Tasmania; Wm. George Hardie, England; Thomas Samuel Hawkesford Hincks, England; Michael Hodgson (B.A.Durham), England; Elphinstone Hollis, Isle of Wight; Posthumus Walter Hughes, Wales; John Johnson, Scotland; Thomas Johnstone, Scotland; James Kelland, Scotland; Peter Leys, Scotland; *John M'Diarmid, Scotland; Alexander MacLachlan, Scotland; Jas. M'Master, Scotland; Samuel Macvie, Scotland; John Maitland, India; Edward Arthur Mappleton, England; Andrew Stanford Morton, England; Wm. Henry Murray, Scotland; *James Ogilvie, Scotland; Robert Edward Phillips (M.A.Cantab.), England; Henry Walter Plant, England; Wm. Edward Pountney, England; Richard Moreton Prichard, Wales; Thos. Eadie Purdom, Scotland; George Rice, America; John Billingley Richardson, England; *Thomas Rutherford Ronaldson, Scotland; Wm. John Russell, Scotland; Robert Saunby, England; Richard Battersby Scholes, New South Wales; John Halliday Scott, Scotland; Robert Scott, Scotland; Thomas Rennie Scott, Scotland (received the degree in April 1874); William Henry Seed, England; Charles Forgan Sinclair, India; George Wm. Smellie, Scotland (received the degree in April 1874); John Cormac Smith, Scotland; Cornelius Peter Smuts, Cape of Good Hope; Alexander Kenneth Stewart, India; Edward Wm. Fleming Stiven, India; John Wm. Taylor, Scotland; Charles Sinclair Thompson, England; Leslie Batten Trotter, England; *Chas. Vetch, Scotland; Arthur Watson, England; Wm. Cairns Wicks, Scotland; Robert Williams, England; Wm. Henry Williams, England; Edward Arthur Wright, England; George Jobson Wyse, Scotland; Wm. Bernard Young, Scotland.

The following candidates had conferred on them the degree of Bachelor of Medicine—[* indicates that the candidate passed the examinations with second-class honours].

Johannes Aveticion Calantarients, Armenia; *Andrew Stark Currie, Scotland; John Alexander Gailey, Scotland; Alexander Henry, Scotland; Richard Anderson Lambert, (B A. Trin. Coll., Dublin), France; James Little, England; George Mackay, Scotland; *Archibald Campbell Munro, Scotland; Douglas M'Kissock Ross, England.

The Ettles Prize for 1874 was awarded to James Murdoch Brown, M.B., C.M.; and the Hope Chemistry Prize to R. Milner Morrison.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ACCRINGTON and DISTRICT DISPENSARY—Medical Officer.

AMERSHAM UNION—Medical Officer for the Missenden District: £34 p. ann.

ANDERSON'S UNIVERSITY, Glasgow—Professor of Chemistry. Applications, 1st September, to J. B. Kidston, Secretary.

BIRMINGHAM GENERAL DISPENSARY—Additional Resident Surgeon; £130 per annum, rising to £150, £30 per annum for cab-hire, furnished rooms, etc. Applications, 29th instant, to A. Forrest, Secretary.

BOROUGH OF STOCKPORT—Medical Officer of Health and Borough Analyst: £150 per annum for one year.

BRADFORD (Yorkshire) EYE AND EAR HOSPITAL—Assistant-Surgeon: £52:10 per annum. Applications, 8th September, to Wm. Maw, Secretary.

BRISTOL GENERAL HOSPITAL—Physician's Assistant: £50 per annum, board, lodging, etc. Applications, 24th instant, to Henry Fox, R.N., Secretary.

CANCER HOSPITAL—Resident House-Surgeon and Registrar: £105 per annum, board and residence. Applications, 27th instant, to the Chairman of the Weekly Board, 167, Piccadilly.

CARLISLE DISPENSARY—Assistant House-Surgeon: £90 per annum, with apartments, coal, gas, and attendance. Applications to Mr. Davidson, Honorary Secretary, 8, Devonshire Street, Carlisle.

CASTLE WARD UNION, Northumberland—Medical Officer to the Workhouse: £30 per annum—Medical Officer and Public Vaccinator for the Ponteland District: £20 per annum, and fees. Applications, 22nd instant, to Thomas Arkle, Highlaws, Morpeth.

CORK STREET FEVER HOSPITAL, Dublin—Apothecary and Accoucheur: £120 per annum, and fee of 20s. for each accoucheur case, furnished apartments, etc. Applications, 26th instant, to the Managing Committee

DAILLY, Ayrshire—Parochial Medical Officer: £50 per annum, £80 per annum as Medical Officer to two Collieries, and private practice. Applications, 26th instant, to Robert Inglis, Chairman.

DURSLEY UNION, Gloucestershire—Medical Officer and Public Vaccinator for No. 3 District: £80 per annum, and fees. Applications, 26th instant, to George Wenden, Clerk.

GARSTANG RURAL SANITARY DISTRICT—Medical Officer of Health: 21s. per case, and 6d. per mile each way. Applications, 27th instant, to Thomas Noble, Clerk.

GREAT NORTHERN HOSPITAL—House-Surgeon: £63 per annum, board and lodging. Applications, 28th instant.—Physician-Surgeon: Applications, 15th September, to A. Phillips, Secretary.

HOLYWELL UNION—Medical Officer for the Whitford No. 2 District; £35 per annum.

HOXNE UNION, Suffolk—Medical Officer for the Hoxne District: £42:12:6 per annum.

HULL and SCULCOATS DISPENSARY—House-Surgeon.

HULL GENERAL INFIRMARY—Resident Assistant Surgeon. Vacancy, 1st September. Applications to W. Shepherdson, Secretary.

KING'S COLLEGE HOSPITAL—Physician to Out-patients.

LIVERPOOL DISPENSARIES—Two Assistant House-Surgeons: £108 per annum, increasing to £128, furnished apartments, etc., each. Applications, 25th instant, to Wm. Lister, Secretary, 34, Moorfields, Liverpool.—Two Honorary Medical Officers to the North Dispensary. Applications, 26th instant, to Wm. Lister, Secretary, Moorfields, Liverpool.

LUNESDALE UNION—Medical Officer for the Workhouse and Hornby District: £30 and £70 per annum, respectively.

MANCHESTER GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN—Assistant Physician: £300 per annum. Applications, 22nd instant, to the Chairman.

MANCHESTER ROYAL INFIRMARY—House Physician: £21 for six months, board, and residence. Applications, 22nd instant, to the Chairman of the Weekly Board.

MORPETH UNION—Medical Officers for Nos. 1 and 8 Districts: £45 and £10 per annum, respectively.

NEWCASTLE-ON-TYNE INFIRMARY—Physician. Applications, 3rd September, to R. Y. Green, Secretary.—Senior House-Surgeon.

NOTTINGHAM UNION—Medical Officer for No. 1 District: £120 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Resident Medical Officer. Applications, 7th September, to A. Boodle, Secretary.

RADFORD URBAN SANITARY DISTRICT—Medical Officer of Health: £50 per annum for three years. Applications, 27th instant, to R. Harwood, Clerk to the Authority.

ROYAL CORNWALL INFIRMARY, Truro—Physician.

ST. THOMAS UNION, Exeter—Medical Officer and Public Vaccinator for the Topsham District: £55 per annum, and fees. Applications, 27th instant, to J. Champion, Clerk.

SOUTH SHIELDS URBAN SANITARY DISTRICT—Medical Officer of Health: £300 per annum for three years. Applications, 27th instant, to J. M. Moore, Clerk to the Authority.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road—Two Surgeons. Applications to H. C. Wilson, Honorary Secretary.

WEST NORFOLK and LYNN HOSPITAL—Resident Medical Officer and Secretary: £100 per annum, board, lodging, etc. Applications, 22nd instant, to the Weekly Board.

WEST WARD UNION—Medical Officer and Public Vaccinator for the Patterdale District: £10 per annum, and fees. Applications, 2nd September, to the Chairman, Hackthorpe.

YORK DISPENSARY—Resident Medical Officer: £130 per annum, apartments, coals, and gas.

YORKSHIRE LUNATIC ASYLUM—Resident Medical Superintendent: £500 per annum, house-rent and taxes free; coals, gas, vegetables, milk, and washing provided; £150 will be expended on substantial furniture.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*Brailey, Wm. Arthur, M.A., M D.Cantab., appointed Curator of the Museum of the Royal London Ophthalmic Hospital, Moorfields.

Cormack, John C., L.K.Q.C.P., appointed House-Surgeon to the North Dispensary, Liverpool.

Crowfoot, Edward B., M.B., appointed Medical Officer to the Beccles Hospital.

Crowfoot, William M., M.B., appointed Medical Officer to the Beccles Hospital.

Horner, Arthur C., M.R.C.S., appointed House-Surgeon to the Kidderminster Infirmary.

Jenkinson, Harold, Esq., appointed Senior Resident Medical Officer to the Leeds Public Dispensary.

*Juler, Henry E., M.R.C.S., L.S.A., appointed House-Surgeon to the Female Lock Hospital and Asylum, Westbourne Green.

Keeling, J. H., M.D., re-appointed Surgeon to the Sheffield Public Hospital and Dispensary.

Keyworth, G. H., M.R.C.S., L.S.A., appointed House-Surgeon to the Buckinghamshire General Infirmary, Aylesbury, *vice* B. H. Williams, Esq., resigned.

*M'Gill, Arthur F., Esq., elected Honorary Surgeon to the Leeds Public Dispensary, *vice* E. Atkinson, Esq., resigned.

Magrath, John, M.D., appointed Assistant Physician to the Metropolitan Free Hospital.

Medcalf, E. S., M.R C.S.E., L.R.C.P.Ed., L.S.A.Lond., appointed Resident Medical Officer to the Western Branch of the Brighton and Hove Dispensary, *vice* Mr. J. Morris, resigned.

Metcalfe, Robert Ives, M.D., appointed Medical Officer to the Beccles Hospital.

Needham, Frederick, M.D., appointed Medical Superintendent of the Barnwood House Lunatic Asylum, Gloucester.

Prichard, Arthur W., M.R.C.S., appointed House-Surgeon to the Royal Westminster Ophthalmic Hospitrl.

Rogers, Maurice Cohen, M.R.C.S., appointed Honorary Surgeon-Dentist to the Western General Dispensary.

Smith, John, M.D., appointed Physician to the Dumfries and Galloway Royal Infirmary.

Spratly, Samuel, M.D., appointed Medical Officer to the Birkenhead Borough Hospital.

Verdon, Walter, M.R.C.S.E. (Demonstrator of Anatomy at the Westminster Hospital Medical School), appointed Honorary Surgeon to the Farringdon Dispensary.

Watson, Morrison, M.D., appointed Professor of Anatomy in Owens College, Manchester.

Whittle, E. George, L.R.C.P.Lond., appointed House-Surgeon to the Hove Lying-in Institution, Hospital, and Dispensary for Women and Children.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

Durham, Andrew, M.D., Deputy Inspector General of Hospitals, at Sandford, County Dublin, aged 61, lately.

*Hayman, Charles C., M.D., at West Malling, aged 48, on August 2nd.

*Maule, John Templeman, M.D., late Deputy Inspector-General of Hospitals, Madras Army, at Bath, aged 73, on August 9th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY, August 28th.—Quekett Microscopical Club, 8 P.M. (University College, Gower Street.)

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

THE SONG OF THE UNION DOCTOR.

SIR,—I cannot conceive what possible good can accrue from the writing of the above named lines. If it is thought that the position of union doctors can in the least degree be improved, I will tell the author that, in my humble opinion, it will have quite a contrary effect. I presume that it is to be understood that the lines are written by an "Union Doctor"; but I should prefer to think they were not. I should be sorry to think that any member of our profession would hold office where he was unable to purchase the drugs necessary to efficiently perform his sacred duty to his patient. If I am mistaken in my estimate, I am driven to agree with the author in thinking that he is "an egregious fool". Most of my medical friends who have read the lines agree with me in thinking they were written by one who feels delight in endeavouring to keep the union doctor in the back-ground by making him out a poor tool in the hands of Guardians; but it is well known that, if not overpaid, the union doctor of the present day is in a far better position than the union doctor fifty years ago.

I am, etc., M. MONCKTON, Union Doctor.

SIR,—I hope that the Song of the Union Doctor, which appeared in the JOURNAL of August 8th, may be laid to heart by every medical officer throughout England, and that the key-note struck in the postscript may not fall upon deaf ears. Cannot a leader be found capable of organising the scattered and isolated union doctors into one powerful body? I for one am ready with my £10 or £20 to help such an undertaking, if a scheme sufficiently broad be fairly mooted. Your poetical correspondent has painted the life of an union doctor so well, that there is little left to say; but few of us, I think, can read those lines without a blush of shame. Why do we endure such treatment? Would any other body of men, educated or uneducated, submit as we do?

In a recent number of the JOURNAL there appeared a letter from Mr. Rogers, lamenting the apathy of union doctors towards the Poor law Medical Officers' Association; but I, for one, feel that such an association, unless it assumes a bolder tone, can do no good. It is like England sending a deputation of Quakers to King Coffee, with a courteous request to withdraw from the Protectorate. Success is not only possible, but certain, if our ranks be but well organised.

I am, etc., C. MOSS CAMPBELL, M.D.

Staunton, August 12th, 1874.

NOTWITHSTANDING that nearly every number of the BRITISH MEDICAL JOURNAL published this year has included a supplement of eight pages, and that one-third more of original matter has been published this year in the BRITISH MEDICAL JOURNAL up to the present date than in any former year, we have still a considerable accumulation of manuscripts from town and country contributors. We would therefore especially ask our correspondents to compress, as much as possible, any communications with which they may favour us, with a view to their publication with the least possible delay.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

KAPPA.—The fees at the University of Glasgow are very moderate, and there are several "bursaries" open to medical students, varying in value from £15 to £50. Our correspondent can obtain further information regarding these in the prospectus of the University.

GOETHE'S VIEWS OF MEDICAL MATTERS.

SIR,—Dr. Ogle mentions Goethe's description of the symptoms of the disease now known as aphasia, as an instance of the correct conception by a non-medical mind of a medical subject. Surely that is not so striking an instance of his (Goethe's) peculiar aptitude for our profession as is his view of the treatment of the insane, as given in the conversation of the clergyman who has charge of the old Harper. These ideas are, I believe, identical with those held at the present day by men who have had the greatest success in the treatment of melancholia, and are the more remarkable that they are in direct opposition to the views held by our profession at the time of writing *Wilhelm Meister*. It is certainly humiliating to think that a layman should have held and published such correct ideas almost fifty years before we, in our superior wisdom, arrived at the same conclusions.

Trusting you will find space for this gossip, I am, etc., C.

Cambridge, August 11th, 1873.

SULPHURET.—If a medical officer, or two qualified medical practitioners, certify to the sanitary authority that "a place used for any process causing effluvia is a nuisance, or injurious to the health of the neighbours, the sanitary authority must direct complaints to be made before a justice, who may summon before two justices, etc." A requisition in writing, signed by ten inhabitants, is deemed equivalent to the certificate of the medical officer or medical practitioners under the preceding provision (18 and 19 Vict., c. 121, s. 27; 29 and 30 Vict., c. 90, s. 18). If the sanitary authority neglect this duty, "any inhabitant" (23 and 24 Vict., c. 77, s. 13) may complain before a justice, who must issue a summons requiring the person by whose act, default, or sufferance, the nuisance arises; or, if he cannot be found, the owner or occupier of the premises, to appear before two justices, who must act as though the person making the complaint were the sanitary authority.

Or the attention of the Local Government Board might be called to the default or neglect of the sanitary authority.

But the above provisions are not applicable to places beyond the limits of any city, town, or populous district; and "Sulphuret" has not stated the precise locality, so far as the city boundary is concerned, of the gas-works in question. If our correspondent do not obtain relief under any of these provisions, we will point out his Common Law remedy.

A CAUTION.

SIR,—I would beg you to insert the following facts, as a caution to London medical men. On Sunday, August 16th, 1874, a young man obtained £3 from Dr. Halley, 16, Harley Street, W., representing himself as a friend of Dr. Southey's (out of town), and detained for want of coin towards travelling expenses to the North of England. On Monday, the 17th, the young man interviewed me, representing himself as a friend of Mr. Maunder's (also out of town), who was thus prevented from at once advancing his convoy money. Courteously declining these advances, I wrote to Mr. Maunder, and on the 18th received a telegram in reply, disclaiming all personal knowledge. His Christian name varies as well as his residence, for the prefix of his signature is either Percy or Henry; and his detention, and that of his luggage, on August 17th, at Ridler's, Holborn Hill, is incorrect, because he left that hotel on the 11th without any. I am, etc., RICHARD DAVY.

33, Welbeck Street Cavendish Square, London.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Aug. 17th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—Dr. G. M. Humphry, Cambridge: Sir J. Rose Cormack, Paris; Dr. J. Marion Sims, Paris; Dr. Rumsey, Cheltenham; Mr. Geo. Oliver, Redcar: Mr. Le Gros Clark, London; Mr. Ayres, Northampton; Dr. Eade, Norwich; Dr. C. Theodore Williams, London; Mr. Wm. Draper, York; Dr. James Ross, Manchester; Our Eastern Correspondent; Dr. Louis Lewis, London; Dr. Budgett, Eastbourne; A Correspondent; Dr. Wm. Arthur Brailey, Witham; Dr. J. Leech, Manchester; Mr. Frederick Page, Newcastle-upon-Tyne; Dr. J. Matthews Duncan, Edinburgh; Miss Miles, Eastbourne; Mr. James Robinson, Bolton; Mrs. J. Holland, Galway; Mr. C. J. Jeaffreson, Newcastle-upon-Tyne; The Registrar of the Royal College of Physicians, London; Mr. T. S. Gimson, London; Mr. Charles J. Jones, Pontypridd; Dr. J. P. Cassells, Glasgow; Mr. George Brown, London; Dr. J. C. Murray, Newcastle-on-Tyne; Dr. Macleod, Ben Rhydding; Captain Doty, London; The Vice-Dean of London Hospital; the Warden of St. Bartholomew's Hospital and College; Dr. Clifford Allbutt, Leeds: Mr. Thomas Lucas, Lambeth; Mr. E. R. Morgan, Glamorganshire; Mr. Fowler, Bath; Mr. J. H. Nicholson, Manchester; Mr. H. K. Evans, London; Dr. Finlayson, Glasgow; Dr. Bateman, Norwich; Dr. Spencer Thomson, Torquay; Mr. R. Davy, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Mr. Eastes, London; Mr. Cadge, Norwich; Mr. T. B. Groves, Weymouth; Dr. Mackey, Birmingham; Dr. Angus Mackintosh, Chesterfield; The Director-General of the Army Medical Department; Dr. Cornelius Fox, Chelmsford; Our Irish Correspondent; Mr. J. E. Ingpen, London; Dr. Taaffe, Brighton; Mr. G. H. Keyworth, Aylesbury; Mr. G. F. Duffey, Dublin; Dr. Batty Tuke, Edinburgh; etc.

AN ADDRESS
ON
THE THEORIES OF LIFE AND MOTION.

Delivered before the British Association, August 24th, 1874.

By THOMAS H. HUXLEY, Ph.D., LL.D., Sec.R.S.,
Professor of Natural History in the Royal School of Mines.

AT this period of the meeting of the British Association I am quite sure it is unnecessary for me to call to your minds the nature of the business which takes place at our sectional meetings. We there register the progress which science has made during the past year, and we do our best to advance the progress by original communication and free discussion. But when the honourable task of delivering this evening's lecture was imposed upon me, or rather when I undertook to deliver it, it occurred to me that the occasion of an evening lecture might be turned to a different purpose; that we might then, with much propriety and advantage, turn our minds back to the past to consider what had been done by the great men of old, who had gone down into the grave with the weapons of war, but who had fought bravely for the cause of truth while they yet lived—to recognise their merits, and to show ourselves duly grateful for their services. I propose, therefore, to take a retrospect of the condition of that branch of science with which it is my business to be more or less familiar. I shall go no further back than the seventeenth century, and the observations which I shall have to offer you will be confined almost entirely to the biological science of the time between the middle of the seventeenth and the middle of the eighteenth centuries. I propose to show what great ideas in biological science took their origin at that time, in what manner the speculations then originated have been developed, and in what relation they stand to what is now understood to be the body of scientific biological truth. The middle of the sixteenth century, or rather the early part of it, is one of the great epochs of biological science. It was at that time, that an idea which had been dimly advocated previously, took the solid form which can only be given to scientific ideas by the definite observation of fact—I mean the idea that vital phenomena, like all other phenomena of the physical world, are capable of mechanical explanation, that they are reducible to law and order, and that the study of biology, in the long run, is an application of the great sciences of physics and chemistry. The man to whom we are indebted for first bringing that idea into a plain and tangible shape, I am proud to say, was an Englishman, William Harvey. Harvey was the first clearly to explain the mechanism of the circulation of the blood, and by that remarkable discovery of his, and by the clearness and precision with which he reduced that process to its mechanical elements, he laid the foundation of a scientific theory of the larger part of the processes of living beings—those processes, in fact, which we now call processes of sustentation—and by his studies of development he, further, first laid the foundation of a scientific knowledge of reproduction.

But beside these great powers of living beings, there remains another class of functions—those of the nervous system—with which Harvey did not grapple. It was, indeed, left for a contemporary of his, a man who, as he himself tells us, was mainly stimulated in these inquiries by the brilliant researches of Harvey—René Descartes—to play a part in relation to the phenomena of the nervous system, which, in my judgment, is precisely equal in value to that which Harvey played in regard to the circulation. And when we consider who Descartes was, how brief the span of his life, I think it is a truly wonderful circumstance that this man, who died at fifty-four, should be one of the recognised leaders of philosophy—that, as I am informed by competent authority, he was one of the first and most original mathematicians who has ever lived, and at the same time that the fertility of his intellect and the grasp of his genius should have been so great that he could take rank, as I believe he must, beside the immortal Harvey, as a physiologist. And you must recollect that this man Descartes was not merely, as some had been, a happy speculation. He was a working anatomist and physiologist, conversant with all the anatomical and physiological law of his time, and practised in all methods by which anatomical and physiological discoveries were made; and it is related of him—and a most characteristic anecdote it is, and one which should ever put to silence those shallow talkers who speak of Descartes as a hypothetical and speculative philosopher—that a friend once calling upon him in Holland begged to be shown his library. Descartes led him into a sort of shed, and drawing aside a curtain, displayed a dissecting-room full of the bodies of animals in course of dissection, and said, "There is my library". It would take us a very long time if I were to attempt to pursue the method which would be requisite for the full establishment of all that I am about to say; that is to say, if I were to quote the several passages of Descartes' works which bear out my ascription to him of the several propositions which I am going to bring before you. And I must beg you, therefore, to be so good as to take it on my authority for the present, although for the present time only, that there are to be found clearly expressed in Descartes' works the propositions which I shall proceed to lay before you, and each of which I shall compare as we go on, as briefly as may be, with the existing state of physiological science, in order that you may see in what position with respect to physiology—aye, even to the advanced physiology of the present time—this man stood. And, happily, the matters with which we shall treat are such as to require no extensive knowledge of anatomy—no more, in fact, than such as, I presume, must be familiar to almost every person. I think I need only premise that what we call the nervous system in one of the higher animals consists of a central apparatus, composed of the brain, which is lodged in the skull, and of a cord proceeding from it, which is termed the spinal marrow, and which is lodged in the vertebral column or spine, and that then from these soft white masses—for such they are—there proceed cords which are termed nerves, some of which nerves end in the muscle, while others end in the organs of sensation. That bare and bald statement of the fundamental composition of the nervous system will be enough for our present purpose. The first proposition that you find definitely and clearly stated by Descartes is one which will sound very familiar to you at the present day. It is the view, which he was the first, so far as I know, to state not only definitely but upon sufficient grounds, that the brain is the organ of sensation, of thought, and of emotion—using the word "organ" in this sense, that certain changes which take place in the matter of the brain are the essential antecedents of those states of consciousness which we term sensation, thought, and emotion. Now-a-days that is part of popular and familiar knowledge. If your friend disagrees with your opinion, runs amuck against any of your pet prejudices, you say, "Ah! poor fellow, he is a little touched here"; by which you mean that his brain is not doing its business properly, that he is not thinking properly, thereby implying that his brain is some way affected. But in Descartes' time, and I may say for a hundred and fifty years afterwards, the best physiologist had not reached that point. It remained down to the time of Bichat a question whether the passions were or were not located in the abdominal viscera. There is a great deal to be said for it, but it is a notion which will not bear scientific investigation for a moment. This, therefore, was a very great step. It is a statement which Descartes makes from the beginning, and from which he never swerves.

In the second place, Descartes lays down the proposition that all the movements of the animal bodies are affected by the change of form of a certain part of the matter of their bodies, to which he applies the general term of muscle. You must be aware of this in reading Descartes; you must use the terms in the sense in which he used them, or you will not understand him. That is a proposition which is now placed beyond all doubt whatever. If I move my arm, that movement is due to the change of this mass of flesh in front called the biceps muscle: it is shortened till it becomes thicker. If I move any of my limbs, the reason is the same. As I now speak to you, the different tones of my voice are due to the exquisitely accurate adjustments and adjusted contractions of a multitude of such particles of flesh; and there is no considerable and visible movement of the animal body which is not, as Descartes says, resolvable into these changes in the form of matter termed muscle. But Descartes went further, and he stated that in the normal and ordinary condition of things these changes in the form of muscle in the living body only occur under certain conditions; and the essential condition of the change was, says Descartes, the motion of the matter contained within the nerves which go from the central apparatus to the muscle. Descartes gave this moving material a particular name—the animal spirits. Now-a-days we should not say that the animal spirits existed, but we should say that a molecular change takes place in the nerve, and that that molecular change is propagated at a certain velocity which has been measured from the central apparatus to the muscle. Nevertheless, the modification of the idea is not greater than that which has taken place in our view of electricity, in our change of conception of it as a fluid to our conception of it as a simple condition of propagated molecular change. Modern physiology has measured the rate of the change to which I have referred; it has thrown marvellous light upon its nature; it has increased our knowledge of its characters, but the fundamental conception remains exactly what it was in the time of Descartes.

Next, Descartes says that, under ordinary circumstances, this change in the contents of a nerve, which gives rise to the contraction of a muscle, is produced by a change in the central nervous apparatus, as, for example, the brain. We say at the present time exactly the same thing. Descartes said that the animal spirits were stored up in the brain, and flowed out from the motor nerve. We say that a molecular change takes place in the brain that is propagated along the motor nerve. The evidence of that is abundantly supplied by experimental research.

Further, Descartes stated that the sensory organs of those apparatus which give rise to our feelings when acted upon by the influences which produce sensation, gave rise to a change in the sensory nerves, to a flow of animal spirits along those nerves, which flow was propagated to the brain. If I look at this candle which I hold before me, the light falling on the retina of my eye gives rise to an affection of the optic nerve, which affection Descartes described as a flow of the animal spirits to the brain. We should now speak of it as a molecular change propagated along the optic nerve to the brain; but the fundamental idea is the same.

In all our notions of the operations of nerve, we are building upon Descartes' foundation. Not only so, but Descartes lays down over and over again, in the most distinct manner, a proposition which is of paramount importance not only for physiology, but for psychology. He says that when a body which is competent to produce a sensation touches the sensory organs, what happens is the production of a mode of motion of the sensory nerves. That mode of motion is propagated to the brain. That which takes place in the brain is still nothing but a mode of motion. But in addition to this mode of motion there is, as everybody can find by experiment for himself, something else which can in no way be compared to motion, which is utterly unlike it, and which is that state of consciousness which we call a sensation. Descartes insists over and over again upon this total disparity between the agent which excites this state of consciousness and the state of consciousness itself. He tells us that our sensations are not pictures of external things, but that they are symbols or signs of them; and in doing that he made one of the greatest possible revolutions, not only in physiology but in philosophy. Till his time, it was the notion that visible bodies, for example, gave for themselves a kind of film which entered the eye and so went to the brain, *species intentionales* as they were called, and thus the mind received an actual copy or picture of things which were given off from it. It is to Descartes we owe that complete revolution in our ideas, which has led us to see that we have really no knowledge whatever of external things, and that the only thing which is certain is that they cannot be like what we imagine them to be, that the only certain knowledge we have of that efficient cause, is that it is in no sense like the picture we present to our consciousness. In laying down that proposition upon what I imagine to be a perfectly irrefragable basis, Descartes laid the foundation of that form of philosophy which is termed idealism, which was subsequently expanded to its uttermost by Berkeley, and has taken all sorts of shapes since. But Descartes noticed not only that under certain conditions an impulse made by the sensory organs may give rise to a sensation, but that under certain other conditions it may give rise to motion, and that this motion may be effected without sensation, and not only without volition, but even contrary to it. I trouble you with as little reading as I can, because it occupies so long; but I must ask your patience for one very remarkable passage—I could have found half-a-dozen such, but I will read you that which is contained in the *Response au quatrième objection*—the answer that Descartes gave to the objections raised to the imputation by the famous Port Royalist, Arnauld, to his Fourth Meditation. Descartes says:—

"It appears to me to be a very remarkable circumstance that no movement can take place either in the bodies of beasts or even in our own, if these bodies have not in themselves all the organs and instruments by means of which the very same movement would be accomplished in a machine, so that even in us the spirit or the soul does not directly move the limb, but only determines the course of that very subtle liquid which is called the animal spirits, which, running continually from the heart by the brain into the muscles, is the cause of all the movements of our limbs, and often may cause many different motions, one as easily as the other. And it does not even always exert this determination, for among the movements which take place in us there are many which do not depend upon the mind at all, such as the beating of the heart, the digestion of food, the nutrition, the respiration of those who sleep, and even in those who are awake, walking, singing, and other similar actions when they are performed without the mind thinking about them. And when one who falls from a height throws his hands forward to save his head, it is in virtue of no ratiocination that he performs this action; it does not depend upon his mind, but takes place merely because his senses, being affected by the present danger, cause some change in his brain, which determines the animal spirits to pass thence into the nerve in such a manner as is required to produce this motion, in the same way as a machine, and without the mind being able to hinder it."

I know in no modern treatise a more clear and precise statement than this, or a more perfect illustration than this of what we understand by the automatic action of the brain. And what is very remarkable, in speaking of these movements which arise by a sensation being as it were reflected from the central apparatus into a limb, as, for example, when one's finger is pricked and the arm is suddenly drawn up, the motion of the sensory nerve travels to the spine and is again reflected down to the muscles of the arm. Descartes uses the very phrase that we at this present time employ—he speaks of the *esprit reflêchi*, the reflected spirit; and that this was no mere happy guess lost upon his contemporaries will be shown to you if you consult the famous work of Willis, the Oxford professor, *De Anima Brutorum*, which was published about 1672, in which, in giving an account of Descartes' motion he borrows this very phrase from him, and speaks of this reflection of sensation or of a sensory movement into a motor motion *sicut undulatione reflexâ*, as if it were a wave thrown back: so that we have not only the thing reflex action described, but we have the phrase "reflex" recognised in its full significance.

And the last great service to physiology of the nervous system which I have to mention as rendered by Descartes was this, that he first, so far as I know, sketched out the physical theory of memory. What he tells you in substance is this, that when a sensation takes place, the animal spirits travel up the sensory nerve, pass to the appropriate part of the brain, and there, as it were, find their way through the pores of the substance of the brain. And he says that, when this has once taken place, when the particles of the brain have themselves been, as it were, shoved aside a little by the single passage of the animal spirits, the passage is made easier in the same direction for any subsequent flow of animal spirits, and that the repetition of this action makes it easier still, until at length it becomes very easy for the animal spirits to move these particular particles of the brain, the motion of which gives rise to the appropriate sensation, until at length the passage is so easy that almost anything, especially an associated flow which may be set going, allows the animal spirits to flow into these already open pores more easily than they would flow in any other direction; and, in this way a flow of the animal spirits recalls the image, the impression made by a former sensory act. That again is essentially in substance at one with our present physical theories of memory. That memory is a physical process stands beyond question. The results of the study of disease, the results of the action of poisonous substances, all conclusively point to the fact that memory is inseparably connected with the integrity of certain material parts of the brain dependent upon them, and I know no hypothesis by which this is accounted for except by some idea which is essentially similar to the notion of Descartes, a notion that the impression once made makes subsequent impressions easier, and therefore allows almost any indirect disturbance of the brain to call up this particular image. So far the ideas that were started by Descartes have simply been expanded, enlarged, and defined by modern research; they are the keystone of the modern physiology of the nervous system. But in one respect Descartes proceeded further than any of his contemporaries, and has been followed by very few of his successors in later days, although his ideas were for the best part of a century largely dominant over the intellectual mind of Europe. Descartes reasoned thus:—"I can account for many such actions, many reflex actions taking place without the intervention of consciousness, and even in opposition to the will." So far as these occur, as for example, when a man in falling mechanically put outs his hands to save himself, or when a person, to use another of Descartes' illustrations, strikes at his friend's eye, and although the friend knows he does not mean to hit him, he nevertheless cannot prevent the muscles of his eye from winking. "In these cases," Descartes said, "I have clear evidence that the nervous system acts mechanically without the intervention of consciousness, and without the intervention of the will, it may be in opposition to it. Why, then, may I not extend this idea further? As actions of a certain amount of complexity are brought about in this way, why may not actions of still greater complexity be so produced? Why, in fact, may it not be that the whole of man's physical actions are mechanical, his mind living apart like one of the gods of Epicurus, but unlike them occasionally interfering by means of his volition?" And it so happened that Descartes was led by some of his speculations to believe that beasts had no soul, and consequently according to his notion could have no true mental operation and no consciousness; and thus, his two ideas harmonising together, he developed that famous hypothesis of the automatism of brutes, which is the main subject of my present discourse. What Descartes meant by this was that animals are absolute machines, as if they were mills or barrel organs; that they have no feelings; that a dog does not see, and does not hear, and does not smell, but that the impression which thus gave rise to those states of consciousness in the dog gave rise, by a mechanical reflex process, to actions which correspond to those which we perform when we do smell, and do taste, and do see. On the face of it that appears to be a most paradoxical hypothesis, and I do not wonder that it was the stumbling-block it was in the minds of even such acute and subtle men as Henry More, who was one of Descartes' correspondents; and yet it is a very singular thing that this, the boldest and most paradoxical notion which Descartes broached, has received as much and as strong support from modern physiological research as any other of his notions. I will endeavour to explain to you in as few words as possible what is the nature of that support, and why it is that Descartes' hypothesis, although I am bound to say I do not agree with it, nevertheless, remains at this present time not only quite as defensible as it was in his own, but I should say, upon the whole, a little more defensible."

If it should happen to a man that by accident his spinal cord is broken across, he becomes paralysed below the point of injury—in such case his limbs would be absolutely paralysed; he would have no control over them, and they would be entirely insensible. You might prick his feet, or burn them, or do anything else you liked with them, and they would be absolutely insensible. Consciousness, therefore, so far as we can have any knowledge of it, is entirely abolished in that part of the central nervous apparatus which lies below the injury. But, although the man under these circumstances is paralysed in the sense of not being able to move his own limbs, he is not paralysed in the sense of their being deprived of motion, for if you tickle the soles of his feet with a feather, the limbs will be drawn up just as vigorously as when he was in full possession of the consciousness of what happened to him—perhaps a little more vigorously. Now, that is what is called a reflex action. The impression is transmitted from the skin to the spinal cord, and is reflected from the spinal cord, and passes down into the muscles of the limbs, and they are dragged up in this manner—dragged away from the sources of irritation, though the action, you will observe, is a purely automatic or mechanical action. Suppose we deal with a frog in the same way and cut across the spinal cord. The frog falls precisely into the same condition. So far as the frog is concerned his limbs are useless; but you have merely to apply the slightest irritation to them, and they are instantly drawn away. Now, if we have any ground for argument at all, we have a right to assume that, under these circumstances, the lower half of the frog's body is as devoid of consciousness as is the lower half of the man's body. I say, if we have any ground for reasoning on these matters at all (and I shall assume that we have such ground), the body of the frog below the skin is in this case absolutely devoid of consciousness, is a mere machine, like a musical box, or a barrel-organ, or a watch. Now comes the remarkable circumstance; in the first place, that the movement of the limbs is purposive—that is to say, that when you irritate the skin of the foot, the foot is drawn away from the danger, just as it would be if the frog were conscious and rational, and could act in accordance with rational consciousness.

But you may say, it is easy enough to understand how so simple an action might take place mechanically. Let us take another experiment. Take this creature, which certainly cannot feel, and touch the skin on the side of the body with a little acetic acid, a little vinegar, which, in a frog that could feel, gives rise to great pain. In this case there can be no pain, because the application is made below the point of section; nevertheless, the frog lifts up the limb of the same side, and applies the foot to rubbing off the acetic acid; and what is still more remarkable is this, that if you hold down the limb so that the frog cannot use it, he will, by-and-bye, take the limb of the other side and turn it across the body, and use it for the same rubbing process. It is impossible that the frog, if it were in its entirety and were reasoning, could perform actions more purposive than these; and yet we have most complete assurance that, in this case, the frog is not acting from purpose, has no consciousness, is a mere automatic machine. But now, suppose that, instead of making your section of the cord in the middle of the body, you had made it in such a manner as to divide the hindermost part of the brain from the foremost part of the brain, and suppose the foremost two-thirds of the brain entirely taken away, the frog is then absolutely devoid of any spontaneity; it will remain for ever where you leave it; it will not stir unless it is touched; it sits upright in the condition in which a frog habitually does sit; but it differs from the frog which I have just described in this, that if you throw it into the water it begins to swim—swim just as well as the perfect frog does. Now, swimming, you know, requires the combination—and a very careful and delicate combination—of a great number of muscular actions, and the only way we can account for this is, that the impression made upon the sensory nerves of the skin of the frog by the contact with the water, conveys to the central nervous apparatus a stimulus which sets going a certain machinery, by which all the muscles of swimming are brought into play, and the remarkable operation is performed. Moreover, if the frog be stimulated, be touched by some irritating body, although we are quite certain it cannot feel, it jumps or walks as well as the complete frog can do. But it cannot do more than this.

Suppose yet one other experiment. Suppose that all that is taken away of the brain is what we call the hemisphere, the most anterior part of the brain. If that operation be properly performed, very quickly and very skilfully, the frog may be kept in a state of full bodily vigour for months, or it may be for years; but it will sit for ever in the same spot. It sees nothing; it hears nothing. It will starve sooner than feed itself; although, if food be put into its mouth, it swallows it. On irritation, it jumps or walks; if thrown into the water, it swims. But the most remarkable thing that it does is this; you put it in the flat of your hand, it sits there, crouched, perfectly quiet, and would sit there for ever. Then, if you incline your hand, doing it very gently and slowly, so that the frog would naturally tend to slip off, you feel the creature's fore paws getting a little slowly on to the edge of your hand until he can just hold himself there, so that he does not fall; then, if you turn your hand, he mounts up with great care and deliberation, putting one leg in front and then another, until he balances himself with perfect precision upon the edge of your hand; then, if you turn your hand over, he goes through the opposite set of operations until he comes to sit in perfect security upon the back of your hand. The doing of all this requires a delicacy of co-ordination, and an adjustment of the muscular apparatus of the body, which is only comparable to that of a rope-dancer among ourselves; in truth, a frog is an animal very poorly constructed for rope dancing, and, on the whole, we may give him rather more credit than we should to a human dancer. These movements are performed with the utmost steadiness and precision, and you may vary the position of your hand, and the frog, so long as you are reasonably slow in your movements, will work backwards and forwards like a clock. And what is still more remarkable is this, that if you put him on a table, and put a book between him and the light, and give him a little jog behind, he will jump—take a long jump, very possibly—but he will not jump against the book; he will jump to the right or to the left, but he will get out of the way, showing that, although he is absolutely insensible to ordinary impressions of light, there is still a something which passes through the sensory nerve, acts upon the machinery and his nervous system, and causes it to adapt itself to its proper action.

Can we go further than this? I need not say that since those days of commencing anatomical science when criminals were handed over to the doctors, we cannot make experiments on human beings, but sometimes they are made for us, and made in a very remarkable manner. That operation called war is a great series of physiological experiments, and sometimes it happens that these physiological experiments bear very remarkable fruit. I am indebted to my friend General Strachey, for bringing to my notice the other day an account of a case which appeared within the last four or five days in the scientific article of the *Journal des Débats*. A French soldier, a sergeant, was wounded at the battle of Bareilles, one, as you recollect, of the most fiercely contested battles of the late war. The man was shot in what we call the left parietal bone. The bullet, I presume, glanced off, but it fractured the bone. He had enough vigour left to send his bayonet through the Prussian who shot him. Then he wandered a few hundred yards out of the village, where he was picked up and taken to the hospital, where he remained some time. When he came to himself, as usual in such cases of injury, he was paralysed on the opposite side of the body, that is to say, the right arm and the right leg were completely paralysed. That state of things lasted, I think, the better part of two years, but sooner or later he recovered from it, and now he is able to walk about with activity, and only by careful measurement can any difference between the two sides of his body be ascertained. The inquiry, the main results of which I shall give you, is conducted by exceedingly competent persons, and they report that at present this man lives two lives, normal life and an abnormal life. In his normal life he is perfectly well, cheerful, and a capital hospital attendant, does all his work well, and is a respectable well-conducted man. That normal life lasts for about seven-and-twenty days, or thereabouts, out of every month; but for a day or two in each month—generally at intervals of about that time—he passes into another life, suddenly and without any warning or intimation. In this life he is still active, goes about just as usual, and is to all appearance just the same way as before, goes to bed and undresses himself, gets up, makes his cigarette and smokes it, and eats and drinks. But in this condition he neither sees, nor hears, nor tastes, nor smells, nor is he conscious of anything whatever, and has only one sense-organ in a state of activity, viz, that of touch, which is exceedingly delicate. If you put an obstacle in his way, he knocks against it, feels it, and goes to the one side; if you push him in any direction he goes straight on, illustrating, as well as he can, the first law of motion. You see I have said he makes his cigarettes, but you may make his tobacco of shavings or of anything else you like, and still he will go on making his cigarettes as usual. His action is purely mechanical. As I said, he feeds voraciously, but whether you give him aloes or assafœtida, or the nicest thing possible, it is all the same to him. He is just like my frog, he goes on feeding. The man is in a condition absolutely parallel to that of the frog I have just described, and no doubt, when he is in this condition, the functions of his cerebral hemisphere are at any rate largely annihilated. He is very nearly—I do not say wholly, but very nearly—in the condition of an animal in which the cerebral hemispheres are not entirely extirpated, but very largely damaged. And his state is wonderfully interesting to me, for it bears on the phenomena of mesmerism, of which I saw a good deal when I was a young man. In this state he is capable of performing all sorts of actions on mere suggestions; as, for example, he dropped his cane, and a person near him put it into his hand, and the feeling of the end of the cane evidently produced in him those molecular changes of the brain which, had he possessed consciousness, would have given rise to the idea of his rifle; for he threw himself on his face, began feeling about for his cartouche, went through the motions of touching his gun, and shouted out to an imaginary comrade, "Here they are, a score of them; but we will give a good account of them." This paper to which I refer is one of the most remarkable examples of this kind, and what is the most remarkable fact of all is the modifications which this injury has made in the man's moral nature. In his normal life he is one of the most upright and honest of men. In his abnormal state, however, he is an inveterate thief. He will steal everything he can lay his hands upon; and if he cannot steal anything else, he will steal his own things and hide them away.

Now, if Descartes had had this fact before him, need I tell you that his theory of animal automatism would have been enormously strengthened? He would have said, "Here I show you a case of a man performing actions evidently more complicated, and mostly more rational, than any of the ordinary operations of animals, and yet you have positive proof that these actions are purely mechanical. What, then, have you to urge against my doctrine that the whole animal world is in that condition, and that, to use the very correct words of Father Malebranche, 'Thus in dogs, cats, and other animals there is neither intelligence nor spiritual soul, as we understand the matter commonly; they eat without pleasure, they cry out without pain, they grow without knowing it, they desire nothing, they know nothing; and if they act with dexterity, and in a manner which indicates intelligence, it is because God, having made them with the intention of preserving them, has constructed their bodies in such a manner that they escape organically, without knowing it, everything which could injure them, and which they seem to fear'?" Descartes put forward this theory, and I really do not know that we are in the slightest degree competent to give a distinct and definite refutation of that hypothesis at the present day. You can have no direct observation of consciousness in any creature but yourself, for beasts cannot tell you anything of it, and I am afraid that the matter is one wholly incapable of demonstrative proof. But I must say for myself—looking at the matter on the ground of analogy—taking into account that great doctrine of continuity which forbids one to suppose that any natural phenomena can come into existence suddenly and without some precedent, gradual modification tending towards it—taking that great doctrine into account (and everything we know of science tends to confirm it), and taking into account, on the other hand, the incontrovertible fact that the lower animals, which possess brains at all, possess, at any rate, a rudimentary part of the brain, which we have every reason to believe is the organ of consciousness in ourselves, then it seems vastly more probable that the lower animals, although they may not possess that sort of consciousness which we have ourselves, yet have it in a form proportional to the comparative development of the organ of that consciousness, and foreshadow more or less dimly those feelings which we possess ourselves. I think that is probably the most rational conclusion that can be come to. It has this advantage, though this is a consideration which could not be urged in dealing with questions that are susceptible of demonstration, but which is well worthy of consideration in a case like the present, that it relieves us of the very terrible consequences of making any mistake on this subject. I must confess that, looking at that terrible struggle for existence which is everywhere going on in the animal world, and considering the frightful quantity of pain which must be given and received in every part of the animal world, I say that is a consideration which would induce me wholly to adopt the view of Descartes; but, on the other hand, considering that if we regard animals as mere machines, we might indulge in cruelties and unnecessary and careless treatment of them, I must confess I think it, on the whole, much better to err on the right side, and not to concur with Descartes on this point.

But let me point out to you that although we may come to the conclusion that Descartes was wrong in supposing that animals are insensible machines, it does not in the slightest degree follow that they are not sensitive and conscious automata; in fact, that is the view which is more or less clearly in the minds of every one of us. When we talk of the lower animals being provided with instinct, and not with reason, what we really mean is, that although they are sensitive and although they are conscious, yet they do act mechanically, and that their different states of consciousness, their sensations, their thoughts (if they have them), their volitions (if they have them), are the products and consequences of their mechanical arrangements. I must confess that this popular view is to my mind the only one which can be scientifically adopted. We are bound by everything we know of the operations of the nervous system to believe that when a certain molecular change is brought about in the central part of the nervous system, that that change, in some way utterly unknown to us, causes that state of consciousness that we term a sensation. It is not to be doubted that the impression excited by those motions which give rise to sensation leaves in the brain molecular changes which answer to what Haller called *vestigia rerum*, and which that great thinker David Hartley termed "Vibratiuncles", which we might term sensigenous molecular, and which constitute the physical foundation of memory. Those same changes gave rise naturally to conditions of pleasure and pain, and to those emotions which in ourselves we call volition. I have no doubt that is the relation between the physical processes of the animal and his mental processes. In each case it follows inevitably that these states of consciousness can have no sort of relation of causation to the motions of the muscles of the body. The volition of animals will be simply states of emotion which precede their actions. To make clear what I mean, suppose I had a frog placed in my hand, and that I could make it by turning my hand perform this balancing movement. If a frog were a philosopher, he might reason thus:—"I feel myself uncomfortable and slipping; and, feeling myself uncomfortable, I put my legs out to save myself. Knowing that I shall tumble if I do not put them further, I put them further still, and my body will bring about all this beautiful adjustment which results in my sitting safely." But if the frog had so reasoned, he would be entirely mistaken; for the frog just does the thing as well when he has no reason, no sensation, no possibility of thought of any kind.

The only conclusion, then, at which there seems any good ground for arriving is, that animals are machines, but that they are conscious machines. I might, with propriety, consider what I have now said as the conclusion of the observations which I have to offer concerning animal automatism. So far as I know, the problem which we have hitherto been discussing is an entirely open one. I do not know that there is any reason on the part of any person, whatever his opinions may be, that can prevent him, if he be so inclined, from accepting the doctrine which I have just now put before you clearly. So far as we know, animals are conscious automata. That doctrine is perfectly consistent with any view that we may choose to take on a very curious subject of speculation—Whether animals possess souls or not, and whether, if they possess souls, these souls are immortal or not. The doctrine to which I have referred is not inconsistent with the perfectly strict and literal adherence to the Scripture text concerning the beast that perisheth; nor, on the other hand, so far as I know, does it prevent anyone from entertaining the amiable convictions ascribed by Pope to his untutored savage, that when he passed to the realms of the blessed his faithful dog should bear him company. In fact, all these accessory questions to which I have referred, involve problems which cannot be discussed by physical science as such, as they lie not within the scope of physical science, but come within the scope of that great mother of all science, philosophy. Before any direct answer can be given upon any of these questions, we must hear what philosophy has to say for and against the views that may be held. I need hardly say—especially having detained you so long as I find I have—that I do not propose to enter into that region of discussion, and I might, properly enough, finish what I have to say upon the subject—especially as I have reached its natural limits—if it were not that an experience, now extending, I am sorry to say, over a good many years, leads me to anticipate that what I have brought before you to-night is not likely to escape the fate which, upon many occasions within my recollection, has attended the statements of scientific doctrine and of scientific tendency, which have been made in a spirit intended at any rate to be as calm and as judicial as that in which I have now laid these facts before you. I do not doubt that that fate will befall me which has befallen better men, and that I shall have to bear in patience the reiterated assertion that doctrines such as I have put before you have very evil tendencies. I should not wonder if you were to be told by persons speaking with authority—not, perhaps, with that authority which is based upon knowledge and wisdom, but still with authority—I should not wonder if you were told that my intention in bringing this subject before you is to lead you to apply the doctrine I have stated to man as well as to brutes, and it will then certainly be further stated that the logical tendency of such a doctrine is Fatalism, Materialism, and Atheism.

Now, let me ask you to listen to another product of that long experience to which I referred. The logical consequences are very important; but, in the course of my experience, I have found that they were the scarecrows of fools and the beacons of wise men. Logical consequences can take care of themselves. The only question for any man to ask is this: "Is this doctrine true, or is it false?" No other question can possibly be taken into consideration until that one is settled. And, as I have said, the logical consequences of doctrines can only serve as a warning to wise men to ponder well whether the doctrine be true or not, and to test it in every possible direction. Undoubtedly, I do hold that the view I have taken of the relations between the physical and mental faculties of brutes applies in its fulness and entirety to man; and if it were true that the logical consequences of that belief must land me in all these terrible things, I should not hesitate in allowing myself to be so landed. I should conceive that if I refused, I should have done the greatest and most abominable violence to everything which is deepest in my moral nature. But now I beg leave to say that, in my conviction, there is no such logical connection, as is pretended, between the doctrine I accept and the consequences which people profess to draw from it. Many years ago, I had occasion, in dealing with the philosophy of Descartes, and some other matters, to state my conviction pretty fully on those subjects; and, although I know by experience how futile it is to endeavour to escape from those nicknames which many people mistake for argument, yet, if those who care to investigate these matters in a spirit of candour and justice will look into those writings of mine, they will see my reasons for not imagining that such conclusions can be drawn from such premisses. To those who do not look into these matters with candour and a desire to know the truth, I have nothing whatever to say, except to warn them, on their own behalf, what they do; for assuredly if, for preaching such doctrine as I have preached to you to night, I am cited before the bar of public opinion, I shall not stand there alone. On my one hand I shall have, among theologians, St. Augustine, John Calvin, and a man whose name should be well known to the Presbyterians of Ulster, Jonathan Edwards, unless, indeed, it be the fashion to neglect the study of the great masters of divinity, as many other great studies are neglected nowadays; and I should have upon my other hand, among the philosophers, Liebnitz; I should have Père Malebranche, who saw all things in God; I should have David Hartley, the theologian as well as philosopher; I should have Charles Bonnet, the eminent naturalist, and one of the most zealous defenders Christianity has ever had. I think I should have, within easy reach at any rate, John Locke. Certainly, the school of Descartes would be there, if not their master; and I am inclined to think, in due justice, a citation would have to be served upon Emmanuel Kant himself. In such society it may be better to be a prisoner than a judge; but I would ask those who are likely to be influenced by the din and clamour which are raised about these questions, whether they are more likely to be right in assuming that those great men I have mentioned—the fathers of the Church and the fathers of philosophy—knew what they were about, or that the pigmies who raise this din know better than they did what they meant? It is not necessary for any man to occupy himself with problems of this kind unless he so choose. Life is full enough, filled amply to the brim, by the performance of its ordinary duties; but let me warn you, let me beg you, to believe that if a man elect to give a judgment upon these great questions—still more, if he assume to himself the responsibility of attaching praise or blame to his fellow-men for the judgments which they may venture to express—I say that, unless he would commit a sin more grievous than most of the breaches of the Decalogue, let him avoid a lazy reliance upon the information which is gathered by prejudice and filtered through passion. Let him go to these great sources that are open to him as to every one, and to no man more open than to an Englishman; let him go back to the facts of nature, and to the thoughts of those wise men who, for generations past, have been the interpreters of nature.

AN ADDRESS
ON
RECENT ADVANCES IN ANATOMY AND PHYSIOLOGY.

Delivered in the Section of Biology at the Annual Meeting of the British Association for the Advancement of Science, 1874.

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GENTLEMEN,—It has occurred to me that, in attempting to give a stronger impulse and a more systematic direction to scientific inquiry, the time ordinarily devoted to an Introductory Address could not be more profitably occupied than by bringing into as great prominence as possible some of the great revolutions in our knowledge of anatomy and physiology which have taken place in my own time, and under my own immediate observation. I remember, as if it were yesterday, the elucidation in the Museum of the Royal College of Surgeons of Edinburgh of the newly discovered cell-theory, by the late distinguished professor of anatomy, John Goodsir; his account of the production of ulceration by cell-growth, of the character of the corpuscles of bone, of the structure of lymphatic glands, and of the germinal centres of basement membranes, as they were then understood.

This was the time when the teaching of histology was first established in Great Britain. Two students, of whom I was one, formed the first class, under the most enthusiastic of teachers, my old friend Dr. Hughes Bennett. The University of Edinburgh had just passed through what was probably the most brilliant period in its history. The race of the last of the Monroes was well-nigh run. The great discoverer of the difference in the motor and sensory nerves, Sir Charles Bell, was still living. The aristocracy of Scotland had only just ceased to crowd the class-room and witness the brilliant and successful experiments of Dr. Hope. The day of Cullen, and Home, and Duncan, and Macintosh was over; but there still remained in the university the most loved and revered of teachers, the benevolent Dr. Alison, Sir Robert Christison, Sir George Ballingall, Mr. Syme, and Dr. Abercrombie, still practising in the city.

At this period, the great discoveries of Schleiden and Schwann seemed likely to upset all that had previously constituted physiology. The idea that all tissues were either composed of cells or had been formed of cells, that nucleated cells elaborated all the secretions, that their energy lay at the root of the foundation, the reproduction, and the function of every tissue and organ, was a revelation of such astounding simplicity as will upset men's minds, and prevent their seeing beyond. No one who did not live through that time will, I believe, ever realise the eagerness and anxiety with which every new statement of the action of cells was received and added to the previous knowledge of their amazing power; or, on the other hand, be able to judge of the feeling, half akin to disappointment, which was experienced as each attack was made on this charming thing, showing it to be really human—very human indeed. Cells were then understood to constitute the mass of all organs, the liver, spleen, kidney, and brain, and to be the main agents in the discharge of their functions: to exist and grow upon the definite membranous walls of the glandular vesicles and ducts; to be fed by blood brought to the attached surface of membranes, which seemed almost everywhere to form an absolute separation of the cellular part, the potential gland, from the non-essential blood and lymph-vessels, the nerves and framework of the organ.

It seemed almost a pity that the little microscopic deities should be hampered by the necessities of their own existence; that they should need such base things as blood-vessels, nerves, and packing materials. Now, how strangely are matters changed! What if it should turn out that these apparently independent little beings are not independent at all; that they are only the dilated endings of nerves? To this subject, I shall refer again by and by.

This great cell-theory has now given place to what, I think, is certain knowledge: that living matter may more than perform all the functions of assimilation and intrusion, and reproduce its like, without having any of the essential characters of a cell. A living mass of protoplasm may change its shape, alter its position, feed and nourish itself, and form other matter having the same properties as it has, and yet be perfectly devoid of any structure recognisable by the highest powers of the microscope.

Mr. Lister showed that the construction of pigment-cells in the skin changes the position of the pigment-granules, driving them alternately into the processes and the body of the cell. Kühne, Golubew, and Stricker observed changes of form in amœbæ, white blood-corpuscles, and embryonal capillaries respectively, after the application of electrical stimuli; and Brücke observed contraction in the pigment-cells of the skin of the chamcleon after excitation of the sensory nerves, whilst Kühne noticed contraction in the corneal cells after excitation of the corneal nerves. Thus obvious movements in fixed cells, or masses of protoplasm, are proved to result from the operation of various stimuli, including nervous stimuli.

But all cells are not fixed. The blood-cells, fixed as cells of organs at an early period, became free in the blood-fluid, and are hurried along by the forces which circulate it, until a second time they enter into the composition of the solid tissues by penetrating the walls of the blood-vessels, and moving along the substance of the tissues for purposes which are not yet wholly explicable. What naturalist will not at once suggest how frequently this process of alternate friction and movement of animal forms occurs low down in the scale? And yet how startling is it in man! how impossible to reconcile with our former ideas of the existence of membraneous coverings of cells, of surfaces, and of gland-ducts!

But, with or without explanation, the facts must be recognised; the floating blood-cells are really the very cells which once formed the substance of the lymphatic glands, the spleen, and other organs; and they do, in fact, move through the walls of the blood-passages, and wander about freely in what are called solid tissues.

Our knowledge of this circulating fluid has marvellously increased. The duration of the life of any of its particles is but short; they die, and their places are occupied by others, as was the case with our forefathers and will be the case with ourselves. It is now a matter of observation, which commenced with Hirt of Zittau, that, after every meal, an amazing number of white corpuscles is added to the blood; breakfast doubles their number in proportion to the coloured corpuscles in half an hour; supper increases their proportion three times; and dinner makes it four times as great. They come from such solid glands as the spleen. In the blood going to the spleen, their proportion is 1 to 2.26; in that returning from the spleen it is 1 to 1.60. Every organ and every tissue changes this fluid; and, to my mind, perhaps the most stupendous miracle of organisation is the maintenance of but slightly variable characters in the living and moving blood, which is every moment undergoing changes of different kinds as it circulates through each tissue and organ in the body.

Yet, with all this change, there is an invariable transmission of the parental characters by continual descent from particle to particle as each takes the place of a former one, and thus each organ continues to discharge the same function from year to year. Animals of the same kind retain the old number of organs, the same shape of body, and similar modes of life. There is no sign of commencing life, no coming of new vital power, no production of life, out of living matter. The original life extends its limits; it operates in a more extended sphere; but it is the same life; it operates in the same way; it never fails to be recognisable in the individual by the same characters as it had when it was first known. Whatever other functions it discharges, it acts continuously in obedience to the first great law: it increases, and multiplies, and replenishes the earth.

Let us now, for a few moments, compare our former views of the structure of animal membranes with the present ones. The skin covering the outer surface of the body; the mucous membranes; the serous linings of the great internal cavities, and of blood- and lymph-vessels; and the living membranes of joints, were all alike viewed, as if formed on a definite membrane, covered on one side by cells, and on the other supplied with blood, lymph-vessels, and nerves; the membrane covering in the latter parts, and effecting an absolute separation of the cells from the vessels and nerves, which were universally believed never to penetrate into the cellular layer. The cells were regarded as the parts actively engaged in the performance of the functions, the vessels and nerves adding thereto, supplying material to be acted upon by the cells, and the nerves regulating the amount of action at particular times for special purposes. The diseased conditions, like the functions, were kept perfectly distinct; and we had one set of diseases of the epithelial or cellular parts, and another and a different set of diseases of the membranes and of the parts below.

I think the first occasion on which the public faith in these views was seriously shaken was when the late distinguished Professor of Medicine in St. Andrews, Dr. John Reid, died of what was called an epithelial cancer of the tongue. Microscopical examination showed that the disease existed in the cellular covering of the tongue. A sufficient cause for it was supposed to exist in the irritation caused by sharp points of the teeth, to cover which a protecting silver plate was constructed. The diseased parts were removed with the greatest skill and care by Sir William Fergusson, and subsequently by the late Dr. James Duncan, assisted by Mr. Goodsir and by Mr. Spence, now professor of surgery in the University of Edinburgh. Every conceivable care was taken by those attached friends of the poor sufferer to remove any trace of the disease; but it progressed steadily and destroyed this valuable life. At this period, no one could understand the extension of an epithelial disease through a basement-membrane, and, therefore, the affection of the adjacent lymphatic glands was explained by supposing the diseased action to have been propagated from cell to cell along the epithelial surface of the lymphatic vessels. Not long afterwards, the sternly truthful and accurate Sir James Paget declared, in terms of terrible significance, to the sufferers of the disease, that epithelial cancer takes a little longer time to do its fatal work. And it soon became thoroughly well known that the glands of the skin, the hair-bulbs, and the teeth are produced by a local development of the deep cells of the cuticle, extending far below the line of the basement-membrane or cutis, and through the position which it was supposed to occupy, as though no membrane was there to hinder them. Thus the basement-membrane, which was supposed so arbitrarily to separate the cells on one surface of membrane from the vessels and nerves on the other, gives way at once before an increased development of the cells, whether in the formation of new organs or the extension of disease. And the membranous walls of capillary blood-vessels allow the corpuscles of the blood to pass through them, much in the same way as solid particles enter into and traverse the substance of the protoplasm of an amœba or other mass of sarcode.

While physiologists were engaged in these observations, the late Master of the Mint, Mr. Graham, was conducting a series of experiments of the most remarkable kind, and of the utmost importance to physiology, as well as to chemistry and physics. He found it necessary to separate two sets of substances, as crystalloids and colloids; the colloids being penetrable by the crystalloids as readily as water is; the crystalloids, such as hydrochloric acid and common salt, passing through organic membranes with great freedom; whilst many of the colloids, such as albumen and gum, will not penetrate them at all. This discovery has enabled the chemist to separate crystalloids from colloids by dialysis, even when they occur in the most minute proportions: for instance, to separate 80 or 90 per cent. of a ten-thousandth part of arsenious acid in twenty-four hours from porter, milk, or infusions of viscera—substances notoriously difficult to analyse; and it has enabled physiologists to explain how animal membranes are traversed by various substances which could not pass through them without being changed from the colloidal into the crystalloidal form. Thus the colloidal starch and albumen of our food scarcely admit of absorption until, in the process of digestion, the starch becomes sugar, and the albumen albuminose—crystalloid bodies, which pass through animal membranes with great facility. And, again, this crystalloidal albuminose, after having passed into the tissues through the membranous walls of the vessels, may become a second time a colloid, and be deposited and fixed as tissue-substance, ready in its turn to be terminated by crystalloids, either for temporary or more durable purposes in the economy. The effect of this great discovery of Mr. Graham's shows how impossible is the advance of physiology without a corresponding advance in our knowledge of chemistry and physics. If basement-membranes, the walls of blood-vessels and of cells, are made up of colloidal matter, we can easily understand how they are penetrated by crystalloids; and in like manner it is perfectly possible that they may be traversed by other substances in solid forms—as, for instance, the walls of blood-vessels by the corpuscles of the blood. No wonder that there is a continual disposition and removal of the constituents of the tissues, if so slight a change as that from the crystalloidal to the colloidal form, and the reverse, make such perfectly marvellous differences in the relation of the substances to each other.

We must look upon the tissues of an animal body as we do upon the substance of an amœba, and recollect how penetrable the surfaces and tissues of an animal are; then we shall cease to be startled when we see these parts become the seat of entirely new deposits, or find them traversed by migrating blood-corpuscles as freely as a colloid is penetrated by a crystalloid. It is impossible to foresee what may be the result to physiology of this great advance in our knowledge of the varying relations of substances to each other, according as they present themselves at different times in the opposite physical conditions which were described by Mr. Graham as crystalloidal and colloidal. But it is plain that we cannot continue to look upon animal membranes as forming such decided barriers against the penetration of one tissue by another, or by foreign matters, as was once supposed.

Let me now direct your attention to the present aspect of the ques-

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tion, how far basement-membranes limit the distribution of vessels and nerves, and separate them from the cells of glands and membranes. Mr. Bowman, in his admirable researches into the anatomy of the organ of sense, discovered that the filaments of the nerves of smell have a remarkable structure; that they are nucleated, finely granular, contain and resemble the gelatinous nerve-fibre. The epithelial surface, too, of the olfactory region, Mr. Bowman described as differing greatly from that of the adjacent parts of the nasal mucous membrane, and as being of a dark sepia tint. Subsequent examinations by Hoyer, Max Schultze, and Lockhart Clarke, confirmed these statements; and those of Schultze demonstrated that the cells are of two kinds—one elongated and filled with yellowish granular protoplasm, exposed at the outer end of each cell, and containing a clear oval nucleus in clear protoplasm in its deeper part, which is first attenuated, and then extended into a broad flattened process, apparently connected with the connective tissue; the other cell—the proper olfactory cell—a thin rod-like body, is moniliform or varicose, connected below with the outrunners of a nerve-cell, and, in birds and amphibia, furnished with one or more hair-like processes, which at the free end come directly in contact with odorous particles. Exner, in 1872, denied the distinctness of these two forms of cells, stating that these are all intermediate forms, and that both forms are connected with a deep network continuous with filaments of the olfactory nerves.

But Dr. Newell Martin, in a paper published in the November number of the *Journal of Anatomy and Physiology*, maintains that the two kinds of cell are distinct, though their characters approximate very closely in the instance of the frog. He inclines to the belief that, as both forms of cell are distinct from ordinary epithelium, they are all olfactory cells. The only conclusion which can be drawn from these observations is, that in this situation the olfactory nerves divide into myriads of small finger-like processes, which, exposed at the free surface of the membrane, are actually engaged in feeling at the odorous particles to inform us of their characters. This single instance, so thoroughly proved, would be sufficient to destroy our former ideas that nerves are spread out under basement-membranes, and never penetrate an epithelial layer.

But this is not the only case of the kind. The general relations of the gustatory nerves to the epithelial cells of the tongue have been described by Axel Key as similar in the fungiform papillæ of the frog, and by Schwalbe and Lovèn in the gustatory cells of the circumvallate and of some of the fungiform papillæ in men and animals. On the protected side of the circumvallate papillæ, a peculiarity in the shape and arrangement of epithelial cells produces a series of taste-cones, the central cells of which are furnished with hair-like prolongations similar to those of the olfactory cells. In the otolith sacs and ampullæ of the semicircular canals of the ear, the nerve-filaments, having lost their white substance, become connected with peculiar auditory cells, and end in hair-like processes between the epithelial cells. In the cochlea, too, notwithstanding the complication of the examination produced by the rods of Corti, there is reason to believe that the cells supporting hairs which project beyond the epithelial surface are connected with the primitive nerve-fibrils of the plexus below.

Of the recorded instances in which nerves pass through basement-membranes to come into direct contact or continuity with the superjacent epithelial cells, none is so striking as that of the salivary and other glands, if there be the least ground for the remarkably detailed observations and suggestions of Pflüger. They are of so much importance and interest in connection with the whole process of secretion, that I offer no excuse for directing your attention to them, even though it may be proved that the act of secretion is not attended with such marvellous and extensive changes of structure as Pflüger supposes.

Up to a certain point his observations may be easily and abundantly confirmed; beyond that, there is much greater difficulty; but this meeting offers one of the most favourable opportunities for extending our knowledge, by bringing different observers into easy communication with each other, and enabling each to help the rest by stating the means by which he had overcome what seemed at first to be insuperable difficulties in the progress of an investigation.

Pflüger calls attention to the very variable character of the alveoli, the secreting cells, and the excretory ducts of the salivary glands. These parts, which are believed to have very determinative sizes and characters, he declares to differ very greatly in different parts of the same gland. The alveoli, occupied by what we understand as secreting or glandular epithelial cells and the excretory ducts, lined by columnar epithelium, he thinks he can prove to be but different stages of development of the same structure, produced on the ends of the myriad nervous filaments supplied to these glands. On this view, glandular epithelial cells must be regarded as special organs of termination of nerve-fibrils. Like the auditory organs, touch-corpuscles, olfactory cells, muscular fibre-cells, and the like, the relation between such structures and the nerves becomes so close that it may be difficult, perhaps impossible, to define their respective limits. Pflüger has figured the nuclei of the cells of the alveoli of the salivary glands, the salivary cells, connected with a delicate fibre, which, after piercing the surface of the cell, is in contact with the *membrana propria*, and gives the cells the appearance of being stalked.

The appearance has also been seen by Schlüter, Otto Weber, Gianuzzi, Boll, and Kölliker, and indeed the appearance which Pflüger has figured may be seen by anyone who will take the trouble to examine the salivary glands of the common cockroach (*Blatta orientalis*). The process was shown to me by my friend and pupil Mr. Charles Workman, and I have several preparations which show a similar process to that which Pflüger has observed and figured; but that it is as clearly connected with the nucleus of the cell as he describes it, I am not prepared to affirm. Pflüger says it is hollow, and often discharges a large quantity of tenacious material, which clearly proceeds from the nucleus. In the interior of the gland there are ducts lined with a thick but single layer of columnar epithelium, the cells of which are clear and nucleated near their free end, but furnished with a large number of extremely fine varicose hairs at the end connected with the *membrana propria*.

This epithelium becomes thicker as the ducts proceed towards their connection with the alveoli, and as transparent drops can be seen transuding from the ends of cells when the saliva has been made to flow by irritation of the gland, Pflüger concludes that they are important secretory organs. Such ducts frequently form loops, or bend suddenly, or possess diverticula. The epithelium of the ducts which carry the secretion out of the gland is of a different and apparently less important kind. Pflüger directs special attention to the great number of nerves connected with the alveoli. He has identified them in fresh specimens by their investments here and there by an ordinary double contoured medulla, by their being blackened by perosmic acid, by their varicosities, and by tracing them to larger and more easily recognisable nerves. He finds them branching in great numbers amongst the cells of the alveoli, and traces their fibrils to the nuclei of the cells. Some, after they have been connected with multipolar ganglion-cells or nerves, covered by medulla and sheath, and containing numerous varicose axis-cylinders, branch, enlarge, and become covered with nuclei, forming what Pflüger calls a protoplasmic foot, and supposes to be a structure intermediate in character between nervous and glandular tissue, and on the surface of the ducts lined by columnar epithelium. A nerve divides a pencil-like tuft of varicose fibrils, each of which, Pflüger says, is directly continuous with one of the processes of a columnar epithelium-cell. I have frequently seen the pencil-like tuft of varicose fibrils on the surface of ducts lined by columnar epithelium, but it is not so easy to be sure that the fibrils are connected with the processes of the cells.

However, the statement is made in the most positive way by Pflüger, who has made these glands the subject of very special and lengthened investigations; and his drawings afford very strong corroborative testimony of the value of his statements. Moreover, in independent observation on the pancreas, he has also traced the nerves to endings in the secreting cells. But Pflüger has gone greatly further than this. He has figured the hair-like processes at the attached end of the columnar cells in all stages of transition into salivary cells of new alveoli; and, having previously found the nerves connected by varicose fibres with protoplasmic masses set with nuclei, he concludes that it is possible that the salivary cells are developed on the ends of the nerves without the interference of their own nuclei; and that as a continual new formation of alveoli and salivary cells implies the atrophy and disintegration of corresponding older parts, the alveoli, with pale offshoots of various forms, which he has seen in moles, are evidence of such atrophy.

With these numerous instances, in which nerves are obliged to pass through membranes, to be connected with the cells on their surfaces, as if these were their special modes of termination, we might well be content until there is time for further investigation by independent observers. But there are yet other instances. Langerhans described, in 1868, a fine network of fibres in the skin, from the superficial part of which fine non-nodulated fibres pass out of the cutis, and end in the Malpighian layer of the epidermis. He saw in the epidermis also well-marked cells, which gave off several processes towards the horny layer, and one long slender process which passed through the Malpighian layer into the cutis. He considered these cells to be nervous, and their peripheral processes to be the terminal part of the nerves of the skin.

C. J. Eberth agrees in the main with Langerhans, and recognises fine nerve-fibres passing from the nerves of the cutis into the deeper layer of cuticular cells, and also star- and spindle-shaped cells in the cuticle, which, he suggests, may be nervous structures, though he has not traced them in connection with nerve-fibres. On the surface of young fishes and naked amphibia, F. E. Schultze has discerned nerve-hairs arranged in the form of tufts or brushes, very much as is the case in the organ of hearing. In this instance, the brush-like endings of the nerves are probably connected with touch.

Cohnheim has described the corneal nerves as forming a superficial plexus under the anterior elastic lamina; from these, perforating branches pass perpendicularly through the lamina, and then under the epithelium, and break up into brush-like or star-shaped finer branches, which form a plexus, giving off fine nerves at tolerably regular intervals, between the deep columnar cells and the more superficial spheroidal ones, and dividing at length into their finest branches, which end by somewhat swollen extremities in the most superficial epithelial layers. Thus the exquisite sensibility of the front of the eye, like that of the olfactory or the gustatory mucous membrane, may be accounted for.

When I look upon the vast amount of research which has been applied to this department of biology for some years past, and think that the instrument which has afforded the great means for it was only perfected, so as to be capable of use for such purposes, about 1820, I cannot but congratulate the section on the abundant fruits we are reaping; and when, in addition, I contemplate the amount of certainty which physical science has imparted to physiology, by furnishing the means of examining and accurately measuring the rates of transmission of nerve currents; of obtaining tracings of the respiratory movements and of the arterial pulsations; of examining the retina in the living eye, and the larynx of a living man, almost as readily as if these parts were exposed in dissection, I cannot but conclude that this nineteenth century has been already distinguished as a very notable one for biology, and especially for physiology. Considering that so much time is required for making a single careful observation, it is very fortunate that so large an array of inquirers and so much talent are employed upon the subjects in which we are interested, and that once a year we have the admirable opportunity of listening to the results of inquiries instituted by the most eminent men in all parts of the world, and of hearing different views advocated with the greatest earnestness, and yet with perfect good humour, and a rigorous determination to rest satisfied with nothing but the truth.

CASE OF DRY GANGRENE OF THE PENIS.*

By CHAUNCY PUZEY, L.R.C.P., M.R.C.S.,
Honorary Surgeon to the Liverpool Royal Infirmary Lock Hospital.

THE subject of the following remarks is a man, aged 34, single, a smith, who, in 1869, contracted a chancre, which was followed by a suppurating bubo and by sloughing of the whole prepuce, for which he was treated in hospital. Whether the sore which afterwards sloughed had been indurated, or whether he had, a short time previously, had an indurated sore, cannot be ascertained; but he appears to have had secondary symptoms early in 1870. In September 1870, he went out to India, where he remained until May 1873. Whilst there, he was frequently laid up with attacks of intermittent fever, for which he treated himself with quinine.

He says that, from the year 1870, he did not have sexual connection, until November last, when he did so whilst intoxicated. A day or so afterwards, he noticed a small red spot near the frænum, which ulcerated and became painful. The sore gradually increased, and caused him so much distress, that he came into the Lock Hospital in the middle of December.

He was then suffering from slow serpiginous ulceration, apparently of the cicatricial tissue, which had resulted from the sloughing of the prepuce in 1869. There was no deep sloughing, but the sore was dirty, apparently creeping along superficially, and throwing off flakes of sphacelated tissue; it was covered with a fœtid and acrid discharge. The whole surface was at once thoroughly swabbed with pure nitric acid, and afterwards dressed with strong opium lotion; opium, nitric acid, and cinchona with wine, and nourishing diet, formed the general treatment. The sore, however, crept on; again acid was applied, and again another time the acid pernitrate of mercury. Various lotions were tried—mercurial, iron, and carbolic acid—but nothing caused the slightest improvement. The ulcer gradually involved the whole of the old cicatrix.

About the end of the second week of January, it was noticed that the glans penis was wrinkled and apparently shrivelling; in a few days more, it became dusky, and was evidently dead; and now it was apparent that the skin of the whole of the penis was becoming cold and dusky; then the penis itself became smaller, and, by the end of January, a good line of demarcation had formed at its junction with the scrotum, and it was manifest that the whole of the organ was dead. All the urine was passed through the meatus until the beginning of February, when the urethra became penetrated at the line of demarcation. Action here was very sluggish; lotions, containing 25 per cent. of compound tincture of benzoin, were now used, and, by the end of February, the penis was detached with the exception of a few fibres of tough mortified tissue, which were divided with scissors. No hæmorrhage occurred at any time. The detached organ was perfectly black, dry, and hard. The man left the hospital in March.

I have brought this case forward, because it appears to me to be interesting: 1stly, on account of its rarity; and 2ndly, because it is peculiar from a pathological point of view.

First, with regard to its rarity. I have looked through a considerable number of the periodicals published for the last twenty years, and have only found two cases recorded at all resembling that which I have described. (These were cases brought before the notice of the Pathological Society, by the late Professor Partridge, on March 21st, 1865, and on February 7th, 1870.) In the *Archives Générales de Médecine* for 1870, there is a paper by M. Demarquay "On Gangrene of the Penis". He says that he has collected twenty-five cases from different journals; but I find that in this number he includes loss of the penis from sloughing phagedæna, from mechanical injuries, and all forms of moist gangrene; and he acknowledges that dry gangrene of the whole penis is very rare, and must be generally allied to some predominant general condition depressing the whole system.

This leads me to the second point: What was the cause of the peculiar train of symptoms in this case? There can be no doubt as to the form of gangrene which occurred. It was the slow, dry gangrene arising from the cutting off of the supply of blood to the affected part; and the question is, how this occurred. At first, it struck me that it might be due to syphilitic deposit in or around the arterial walls, gradually obliterating the channel of the vessels; but, considering the number of vessels supplying the penis, it is difficult to suppose that all these vessels could be affected so simultaneously. It is quite possible that they might have undergone some degeneration which assisted in the result described; but we must look for something more than that. I am inclined to look upon it as a case nearly allied to, even if we cannot actually call it, senile gangrene. And here I would draw attention to the general appearance of the patient when he first came under my observation. He was very wasted, with a thin delicate skin, and sallow complexion. His circulation was very feeble; his nose frequently blue at the tip; his fingers exceedingly taper, and his hands delicate, like a woman's. He had several pustulo-crustaceous spots about different parts of the body; the cicatrix of an abscess in the groin, and several livid cicatrices about his legs, the result of abrasions; one, especially large, the result of an incised wound. His legs looked like those of an emaciated old man.

Sir James Paget, in his *Pathology*, says:—"Senile gangrene occurs often in those who are old in structure rather than in years; it affects tissues already degenerate. . . . Some injury or disease, even a very trivial one, kills that which was already nearly dead. . . . The parts around or within it become inflamed, and in these (degenerate as they already were) the further degeneration of the inflammatory process is destructive."

"There are many cases in which explanation, except in the most general and vague terms is difficult. In some, the local death is to be attributed to defective quality of the blood. . . . Certain parts, even small and circumscribed parts, may die through defects or errors of the blood, which yet do not quite hinder it from maintaining the rest of the body."

Sir Benjamin Brodie, in his essay on *Mortification*, says that one of the worst cases of senile gangrene which he ever saw occurred, after a slight injury, in a man, 36 years of age, worn out by the operation of bad habits on a bad constitution. This man had been a soldier, and had served in India and Canada.

Billroth, in his *Surgical Pathology*, says:— "In acute (marasmic) gangrena senilis, the primary coagulation due to feeble circulation occurs in the capillaries, and thence extends backwards to the arteries."

"Very rare", he says, "are the cases where, from excessive anæmia, the arteries are so much contracted, that but little blood circulates through the smaller branches, and the nervous excitation of the heart is so slight, that its contractions are incomplete. . . . The patients, who are generally young, often suffer from rigidity of the hands and feet, fainting fits, and fatigue."

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* Read before the Liverpool Medical Institution

Billroth relates the following case. A young very anæmic man had, without any apparent cause, first, gangrene of the tip of the nose, then of both feet. After suffering for four months, he died; and, as in the patient, so in the dead subject, he could find nothing morbid beyond the excessive inexplicable anæmia.

My idea as to the pathology of the case which I have related is as follows. We evidently had to deal with a man originally of delicate frame; who had suffered from syphilitic infection; whose originally feeble constitution had been still further deteriorated by residence in a hot climate, and who had, according to his own account, suffered from repeated attacks of one of the climatic fevers. Under these circumstances, probably after an orgie, he has sexual connection, and suffers from a sore in consequence. This sore is situated on a part composed of feeble tissue, a cicatrix resulting from a sloughing sore; a low form of inflammation is set up, leading to progressive death of the surrounding superficial textures. This slow destructive action spreads round the penis, behind the corona glandis; then, either from inflammatory adhesion or plugging of the adjacent arterial branches, the glans dies. Up to this point, the rest of the penis has been unaffected; but now comes the effort of nature to throw off the dead portion, the inflammatory process in a deteriorated part (as described by Paget) takes place, which is too much for these feeble structures, and kills them; and so the mortification extends until the whole of the projecting part of the organ is destroyed.

[I have omitted to state that neither albumen nor sugar was found in the urine; and, further, that no visceral mischief of any kind could be detected.]

EXTRACTION OF A WATERLOO BULLET WHICH HAD REMAINED IMBEDDED IN THE PALM OF THE HAND FOR UPWARDS OF FIFTY-NINE YEARS.

By HENRY HARLAND, M.D., Wadhurst, Sussex.

James Jenner, aged 83, fought at Waterloo, on June 18th, 1815, in the 44th Foot. In the thickest of the action, near Quatre Bras, whilst he was discharging his musket, a French bullet struck his forefinger. It passed through the proximal phalanx to the barrel of his musket, which it indented, and thence through the fleshy part of the ball of the thumb, down to the trapezium, against the palmar surface of which it became imbedded, and which probably arrested its further progress. Jenner immediately sought surgical aid; the wound was probed several times, but, as the bullet could not be detected, no attempt at extraction was made; he was never afterwards fit for duty. The wound remained open two years, and then healed, leaving so much induration in the palm as to render it very difficult for him to grasp his agricultural tools, and quite impossible to close the hand.

I first became acquainted with the patient twenty-five years ago. He has constantly worked as a gardener or agricultural labourer since his discharge from the army in 1816, excepting at those times when the hand has been unusually painful. About forty years ago, he was laid up three months, in consequence of irritation and lymphatic inflammation, induced by the bullet, and was frequently at other times incapacitated for several days at a time. About three months ago, when working on very hard ground, the hand became painful and swollen. An abscess formed and opened on the dorsal surface of the hand, midway between the metacarpo-phalangeal joints of the thumb and forefinger. I passed down a probe, and felt the bullet distinctly in the situation before-mentioned. After enlarging the opening sufficiently, I had very little difficulty in dislodging and extracting the bullet with the scoop. It was blackened, and slightly flattened on one side, probably from its first striking the barrel of the musket. The patient told me that the English at that time used the ounce and spherical bullets, but that the French bullets were smaller. This weighed six drachms and five grains. The wound is rapidly healing; but considerable time must elapse before it is completely closed, in consequence of the depth of the sinus, which is kept open by being filled with lint, soaked in dilute carbolic acid.

The interest of the case consists in the fact of a leaden bullet remaining deeply imbedded upwards of fifty-nine years without producing more inconvenience. I think it highly probable that, during the patient's work on very hard ground, the bullet may have become dislodged from its long resting place, either by concussion of the tool against the ground, or by some pressure directly applied to the palm, and that the abscess resulted from its sudden and probably violent displacement.

ON THE INDUCTION OF PREMATURE LABOUR.

By WILLIAM DRAPER, M.R.C.S., etc., York.

Formerly Resident Obstetric Officer to the Middlesex Hospital.

The question of Induction of Premature Labour, which has been recently brought forward in the British Medical Journal, must, I apprehend, be one of importance and interest to all obstetricians; and as I cannot quite agree, in every respect, with some of the views promulgated in a very carefully prepared paper on the subject, in the Journal of August 8th, I would add some remarks relative to the operation.

In the paper referred to a most interesting digest, with statistics, is given of twenty cases in which premature labour was induced. Although the practice chiefly followed in these cases, that of dilating the os uteri with sponge-tents, may be, as is alleged by its advocate, safe, it is certainly a slow process; and, according to my own experience, results at least as favourable, both to mother and child, are attainable by a more rapid and less irksome operation, such, for instance, as that advised by Dr. Barnes.

An analysis of the twenty cases given shows, I believe, that the average duration of time occupied for the completion of labour was rather over four days per case; the longest duration of time, by the tent process, being sixteen days, the shortest thirty-six hours. By the more expeditious plan of Dr. Barnes, we may, I think, with tolerable certainty, count upon the operation being terminated within twenty-four hours. A typical case in point, which recently occurred to me, is fresh in my memory.

Certain conditions of a patient necessitated labour being induced between the seventh and eighth months of gestation. In accordance with Dr. Barnes's practice, I introduced into the uterus overnight an elastic bougie, which I withdrew at my visit on the following morning, uterine action having then commenced. At an afternoon visit, I found that slight pains had continued during the day, and that the os (both external and internal) admitted the finger easily; I therefore introduced, without difficulty, a small-sized hydrostatic bag, and gradually dilated to its full extent; the second and third sized bags were then successfully employed, and good dilation resulted. The membranes were next ruptured, the largest sized bag replaced, and the patient left until good expulsive pains came on, which occurred about three hours later; and although the labour was somewhat retarded by a footling presentation, it was terminated within twenty-two hours of the commencement of the operation. There was prolapsus of the funis in this case; and the child, being unusually small and weakly for seven-and-a-half months, survived its birth only for a short time. The mother made an uninterrupted recovery.

This case, I believe, is only a common illustration of general experience, both with respect to time and process, when a like method of procedure is adopted. With all due deference, therefore, to large experience, and to what has been otherwise said on the subject, I cannot dissuade myself from the opinion that, after premature labour has once been provoked, the sooner, within reasonable bounds, the uterus is emptied and the fœtus liberated, the better will be the chance of saving the latter, and the more favourable will be the conditions of recovery for the mother, in curtailing the shock to the system and the strain upon her strength and patience.

CLINICAL MEMORANDA.

MAMMARY ABSCESS IN INFANTS.

Mr. James Robinson writes: A short time ago, I was requested to see an infant one month old, when I found it to be suffering from mammary abscess on the right side. There was no constitutional disturbance. The swelling was about the size of a walnut, inflamed, and quite distinctly fluctuating. I opened it with the ordinary bistoury, and ordered linseed-meal poultices. It rapidly healed. The swelling had been observed about ten or twelve days. The breast had not been at all manipulated by the nurse or any other person.

Mr. P. Downey (Silcby) says that in Drs. Evanson's and Maunsell's work on *Diseases of Children*, published in Dublin in 1847, at page 211, swelling of the breast and occasional abscess are mentioned as occurring in infants. At page 202, abscesses are noted as forming large collections of matter. Mr. Downey had a case in 1855 in an infant, in whom seven abscesses successively formed, and were opened when they pointed. The patient recovered, and she is now a strong girl. Another case was in a boy who had four formations of a similar kind, and is now a healthy boy.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

CASES OF SCROFULOUS IRITIS: WITH REMARKS.

By BOWATER J. VERNON, F.R.C.S., Ophthalmic Surgeon to the Hospital.

IF it be true, as is generally admitted, that we rarely see nowadays such severe cases of scrofula as formerly, it is easy to understand why scrofulous affections of the eye should be less frequent; indeed, with respect to the form of iritis of which I report three cases, modern text-books on ophthalmology are almost silent, some do not even mention it—a striking contrast to the graphic descriptions to be found in the writings of older authors.

The cases which I have to record, though they differ in their character from iritis as generally met with, yet correspond so well with those described by Mackenzie and others, that I have retained the old name of scrofulous iritis, though it cannot be supposed that in cases such as these the disease is limited to the iris, or even to the front of the eye; for in one it is clear that the membranes within the skull became implicated, a result never met with under ordinary circumstances; while in all three the age of the patient was an unusual one for the occurrence of iritis.

In the *St. Bartholomew's Hospital Reports*, vol. vii, I have spoken of the unsatisfactory and inexact state of our knowledge as regards tubercular affections of the eye; and it seems to me that anything that can add to it is worthy of record.

CASE I. *Scrofulous Iritis, with a large amount of Effusion into the Anterior Chamber.*—Charlotte R., a very pale and ill-nourished child, aged 9 months, was brought to me at St. Bartholomew's Hospital on May 20th, 1873, and was admitted with her mother. The mother had lost two sisters with phthisis, was herself very thin and delicate, had well marked clubbed fingers, had had three children, the patient being the youngest, all of whom were brought up by hand. This last child had always been ailing, and latterly had been wasting away, very restless, and unwilling to take food. Six weeks previously, the mother had noticed a small red spot on the child's right eye, which had been increasing in size and varying in colour. Under medical advice, she had been using atropine to the eye, and giving the child cod-liver oil. The child was peevish and irritable, and kept the right eyelids closed, but there was nothing to note externally. The eye seemed smaller than the other, but the cornea was well developed and transparent. The circumconical zone of congestion was well marked, and large vessels made their way through the sclerotic. The upper part of the iris, which was all that could be seen, was of a dull brown colour; that of the other eye was a bright blue. The lower two-thirds were obscured by a pinkish-yellow mass of effusion, which occluded the pupil, and nearly filled the anterior chamber. The tension of the globe was —1.

The child was well fed, and took small doses of grey powder with cod-liver oil for some days; and with advantage, for it gained in weight and appearance, and slept well. The deposit in the anterior chamber, however, increased and became more puriform, while at the same time there appeared a discharge from the right ear.

As the child continued to improve in general health, and appeared to suffer very little from the state of the eye, the mother was allowed to take it home, and, unfortunately, has not come to the hospital since.

CASE II. *Iritis, with great Effusion into and upon the Iris, simulating Multiple Tumours: Enucleation of the Globe.*—Mary C., a sickly-looking child, aged 4, was sent to me by Mr. Marsh, having been under his care on account of some disease of the hip, the result of her being run over two years before. She was admitted into St. Bartholomew's Hospital on May 25th, 1872, having been complaining of pain in the right eye for the last six weeks. There was no swelling of the lids, but the eye was kept closed on account of intolerance and lacrymation. There were large veins penetrating the sclera, and considerable ciliary congestion; the upper part of the cornea was clear, but its lower third was nebulous and dotted as in keratitis punctata. The whole of the iris was cloudy and swollen; and on its outer aspect were six or seven pinkish-yellow nodules, one or two of them as large as hemp-seeds. There were numerous adhesions to the anterior capsule, and the pupil was too occluded to admit any examination of the fundus. The other eye was healthy in every way; the iris was of a dark hazel colour. The child limped, on account of some affection of her hip. The parents were in good health, and the family history seemed good, and this child was the youngest of seven. The child remained in the hospital for many weeks, during which her general health and appearance would for some short time improve, and then would come an increase of pain in the eye and the child would lose flesh in spite of all treatment; all this time the condition of the eye did not materially change, the growths, for so they appeared, from the iris had become larger, and in some instances had coalesced.

Early in July, when the eye had been for some days more painful, and the child's health failing, the eye was removed. After this operation, it appeared that the source of irritation had been removed, for the child's condition improved in every way, and she left the hospital at the end of July in very fair health. At the time of the operation, there was no trace of any effusion within the orbit; and, on examination of the eye, the disease appeared limited to the iris and the ciliary region, for behind these the tissues of the eye were healthy, and, with the exception of some opacities on the capsule from synechiæ, the lens was clear. The back of the iris and the ciliary processes were dotted with numerous small outgrowths similar to those upon the front of the iris; when examined with the microscope, these were found to consist of small nucleated cells, with many free nuclei and a very scanty intercellular stroma, with *débris* of cells, but without blood-vessels or pigment.

The child has not been seen since her discharge from the hospital.

For many of the particulars of Case III, I am indebted to Mr. Sloman of Farnham, by whom the child was sent to the hospital.

CASE III. *Iritis, with Perforation of the Cornea from within on the right side: Convulsions on the opposite side: Death.*—Mary M., a weakly-looking child, aged 6, was first seen by Mr. Sloman, at her own home, in March 1873; at that time there was considerable photophobia and sclerotic injection in the right eye. A few days later, there was decided iritis, and then some haziness of the cornea was noticed as the iritis increased. About this time, too, there was observed what appeared to be a bead of lymph protruding through the pupil from behind the iris. During April, the cornea became clear again, but the bead of lymph had steadily grown in size, and had filled the space between the cornea and iris; the whole of the latter, too, lost its proper colour and striated appearance, and became swollen and infiltrated, while here and there small beads of pinkish transparent lymph made their appearance upon its surface, and vision became reduced to mere perception of light. All this time the treatment appears to have been most judicious, and to have been carried out most thoroughly; and, though the child's health appeared to improve at times, the condition of the eye had become steadily worse.

On May 10th, the child was admitted into St. Bartholomew's Hospital. She looked ill and thin, and hectic, with a hot dry skin and quick pulse. She did not seem in pain, but examination of the eye was difficult on account of photophobia; it was accordingly made under chloroform. On the lower and outer aspect of the cornea was what appeared to have been a perforating ulcer, through which there bulged a very remarkable pinkish-yellow gelatinous-looking substance as large as a pea, connected with and blending with the front of the iris; there were one or two small dotted opacities on the inner layer of the cornea. The aqueous humour was turbid, the pupil occluded, and the rest of the iris was studded with little pink elevations similar to that protruding through the cornea.

The same plan of treatment was adopted. She took cod-liver oil with iron combined with small doses of grey powder, and the eye was kept perfectly at rest by atropine and the constant use of a compress bandage; for two months and more she remained in hospital. The condition of the eye hardly changed, but as the warm weather came round her general health did not improve; her mother would not consent to the eye being removed, and she left the hospital on July 19th.

On July 24th, she was visited by Mr. Sloman, who found her in bed avoiding the light, and taking little food. Two or three days after this, she became comatose, was convulsed, especially on the left side, and never thoroughly rallied. She died at mid-day on August 2nd.

Unfortunately, no *post mortem* examination could be obtained.

It cannot be doubted that these three cases cannot be classed under the category of iritis as generally met with. The peculiar features of the disease appear to be the age at which it makes its appearance; the utter failure to make any impression upon its course by any treatment; its destructive nature; and its danger to life. Very fortunately, such cases are rare; but, however rare, they seem to merit more notice than is accorded them in recent works on ophthalmology.

GENERAL INFIRMARY, HERTFORD.

CASE OF CEREBRAL APOPLEXY IN A BOY.

(Under the care of Dr. WOODHOUSE.)

T. T., aged 14, was brought to the Infirmary in a cart on the morning of August 19th, with the vague history that he had fallen down in a fit. On admission, the right pupil was of normal size, and reacted to light; the left was dilated, and showed very feeble, if any, action on exposure to light. The respirations were 34, not laboured or stertorous; pulse 100, full and hard. The skin was moist. Whilst being examined, he turned over in a restless manner, and said impatiently, "I want to go to sleep"; but, beyond this, there was not the least evidence of consciousness, and not the slightest response when spoken to loudly. There was a loud systolic murmur, heard most distinctly at the apex of the heart. He smelt very strongly of tobacco, and a piece of cigar was found in his waistcoat-pocket; and, from the knowledge of another patient, he was quite a confirmed smoker. It was also very doubtful if he had any supper the previous night, and almost certain he had had no breakfast that day. He had constant retching, and occasional vomiting of bilious fluid. He was given twelve grains of sulphate of zinc; and, as that had no effect, with the sanction of Dr. Woodhouse, the stomach was well washed out by means of the stomach-pump. This had the effect of completely stopping the sickness.

At noon, symptoms clearly pointing to compression of the brain from some cause were present. There was no external injury. The condition of the pupils had altered; the right was more dilated, and less sensible to light. Temperature 105; pulse 100; respirations 44, stertorous. The face was covered with perspiration. The urine was drawn off.

In the evening, he was worse. The pupils were both quite inactive, and dilated. Temperature 104.4; pulse 112; respirations 68. With great difficulty he swallowed a little milk when poured into his mouth with a teaspoon. Mucous *râles* were heard. His hair was cut off, and an ice-bag applied to the head.

On August 20th, the temperature was 106, pulse 184, respirations 74. He sank rapidly, and died at 2.30 P.M. The temperature immediately after death was 106.5.

Post Mortem Examination.—The skull-cap being removed, no trace of fracture was found anywhere. The superficial veins of the brain were more congested than usual, especially on the right side. On making a section (at the level of the corpus callosum) of the right hemisphere, a large clot of blood, of the size of an egg, was discovered. The substance of the brain around this clot was considerably softened, but no vessel could be discovered from which the blood had escaped. The fluid in the lateral ventricles was blood-coloured, but not at all turbid. The base of the skull was examined thoroughly, but no trace of fracture was discovered. The right auricle of the heart was full of coagulated blood. The right ventricle was small, and its walls thin, especially compared with the left, which was hypertrophied. Vegetations were found on the mitral valve, but not very extensive. The other organs were healthy.

From evidence given at the inquest, it appeared that the boy was harnessing a horse at seven o'clock in the morning, and, after complaining of his head, let himself fall gently to the ground by means of the reins, vomited, and became insensible. He was left on the ground for some time, and then moved into a barn; thence into the house; and it was two hours and a half before he was brought to the Infirmary.

The boy had had typhoid fever three years before, but there was no history of rheumatic fever to account for the mitral disease. He had complained from time to time during the last month of pain in his head. He was at work the previous day, and seemed quite well. He went to work in the morning of the 19th, and left his father at five o'clock, apparently quite well.

BELFORD HOSPITAL, FORT WILLIAM, N.B.

CASE OF ACUTE RHEUMATISM.

(Under the care of JAMES W. ALLAN, M.B. C.M.)

D. C., aged 14, was admitted to the hospital on October 24th, 1873, in a state of great distress. He was so lame that he could scarcely make an attempt at walking, even when supported. He could not put the left leg under him, *i.e.* he could not rest on it. He said that the pain commenced in the hip on the night before last, while he was in bed. At first, he denied that he had received any injury, but afterwards he confessed to having got a sprawl. The patient was put to bed, and treated with rest, fomentation, and a diaphoretic mixture. On the 25th, the boy pointed out a tender spot a little to the left of the sacral ridge. There was swelling at this part of the hip, and pressure seemed to give great pain. On the 26th, it was noted that the tongue was white with a red tip. On the 27th, he complained of his right elbow. On the 28th, he was still suffering much. There was a large elastic swelling in the left hip, no doubt containing fluid. He could not extend the right forearm to more than a right angle. Weak carbolised oil was applied to the hip, and the chloral draught was repeated. On the 29th, he complained in addition of a pain in the vicinity of the left nipple. A poultice was applied. He had been given alkaline mixture (iodide and bromide of potassium, nitrate and bicarbonate of potash, with tincture of hyoscyamus). The urine was amber-coloured, with slight mucous deposit; it was decidedly but not strongly acid. On the 30th, the heart-sounds were natural. The patient drank a great deal, and voided large quantities of urine. On the 31st, there was a painful swelling still in the hip. He had pain in the right shoulder; he had it in the left before. Alkaline mixture was given. On November 4th, he had pain and redness in the right ankle. A seidlitz powder was given. The ankle was wrapped in cotton-wadding. The cardiac *bruit* was detected as yet; but for some time past I had thought the heart's action very strong. The alkaline mixture and chloral draught were continued. On the 7th, he still suffered, but the hip and ankle were better. The pulse was rapid and small. There was nothing beyond a suspicion of cardiac derangement. I felt rather uneasy on account of a wild look in the patient's eye. The motions from the bowels were reported to be very pale. Up till now, he had been getting alkaline mixture and chloral draught. To-day, I ordered ten minims (nearly) of propylamine in four ounces of water: a teaspoonful to be taken three times a day. On November 8th, the patient was much better and easier. I do not pretend to say what part the propylamine played in the improvement. The attack was rapidly waning when the remedy was administered. On the 10th, he was still much better. I do not put much of this to the credit of the propylamine; but the coincidence is rather singular. On the 11th, the propylamine was put aside. It seemed to cause a very violent determination of blood to the surface of the body. The abominable "ancient and fish-like smell" of this drug is a great drawback to its use. On the 12th, digitalis was given. On the 24th, he was "fairly convalescent"; and was dismissed on January 9th, 1874.

REVIEWS AND NOTICES.

LECTURES ON FEVER, DELIVERED IN THE THEATRE OF THE MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY. By WILLIAM STOKES, M.D., D.C.L.Oxon., F.R.S., Regius Professor of Physic in the University of Dublin. Edited by JOHN WILLIAM MOORE, M.D., Assistant Physician to the Cork Street Fever Hospital. Dublin: 1874.

DR. STOKES has long and justly been regarded as one of the greatest authorities upon the subject of continued fevers, and his matured views are to be found in the lectures now before us. These lectures were not delivered in any regular sequence, so as to form a continued or systematic course; but they were delivered at irregular intervals over a considerable period of time. The volume is divided into two parts; the former, comprising twenty-four lectures, treats of "Essential Fever and its Secondary Affections"; while the latter includes nine lectures, and discusses the "Treatment of Fever."

The fundamental doctrine which pervades the work is, that continued fever is an essential disease, independent of local inflammation or irritation, but very prone to produce in its course local diseases, involving alterations of structures—thickening, softening, vascularity, effusions, ulcerations, and gangrene; these local affections being symptomatic of the fever, or secondary to it, and in all probability under the same law of periodic action as the general malady, so long, at least, as they remain uncomplicated with inflammatory action. So far, the views of our author are in harmony with those of the great bulk of the profession of the present day; but it must not be forgotten that it is to the researches and writings of Dr. Stokes that the profession is, in great measure, indebted for upsetting the anatomical theories of fever, commonly held at the commencement of this century, and for substituting for them a sounder pathology, the result of which has been a more rational treatment. Few modern authorities, however, will agree with Dr. Stokes in ignoring the specific distinctness of typhus, enteric, and relapsing fever, and of cerebro-spinal fever, and in regarding the intestinal lesions of enteric fever, the cerebral lesions of epidemic cerebro-spinal meningitis, and even tubercle, as the secondary lesions of a primary fever, which in all cases is essentially the same. To prevent misconception, it may be well to quote a few passages bearing on this important question. In one lecture, Dr. Stokes contends "that there is but a slight tension, so to speak, in the individuality or separate characters of the various forms of fever; and that in their essence, and, from a practical point of view, they may be looked on as species rather than genera, the genus being fever, that condition on which anatomical investigations, in the words of Graves, throw but a negative light" (page 89). In another lecture we find the following passage.

"The greater your intimacy with fever, the more it is observed upon a large scale, the less attention you will pay in your diagnosis, prognosis, and treatment of the question whether the disease belongs to this or to that category. This is true, at all events, as to the typhus or typhoid fever. Much has been written to prove that dothienenteritis may be taken as the anatomical character of the latter disease, and some go so far as to deny the occurrence of ulceration of the intestine in maculated typhus. Yet no man who has observed this fever in an Irish hospital will subscribe to such a doctrine. Dothienenteritis is, or has been, a common occurrence in the last-named form of the disease, its frequency and amount varying in different epidemics" (page 236). And further on in the same lecture there is this passage.

"You may admit the disease of the digestive organs to be met with less frequently in typhus than in typhoid; but if you were to conclude that in typhoid fever intestinal lesion was a special and constant result, or that it was not met with in typhus, you would be wrong" (page 240).

Dr. Stokes contends that the great Dublin epidemic of 1826-7 was clearly "a typhus fever, with every character of the affection," highly contagious, with well marked petechial eruption, and yet that tumefaction and ulceration of the ileum were frequent. We cannot, however, help thinking that there is a way of looking at the facts of this epidemic which does not warrant the inference Dr. Stokes would draw from it. There can be no doubt that enteric fever was prevalent at the time in Dublin, but the bulk of the epidemic was composed of typhus and relapsing fever. On turning to Dr. Murchison's work (2nd ed., p. 44), we find that intestinal lesions in fatal cases were the exception, and not the rule, as stated by Dr. Stokes. Dr. Reid, for example, in his account of the epidemic, published at the time, alluded to ulceration of the bowel as of occasional occurrence; but in four out of six necropsies recorded by him, it is clear that the intestines were sound, and in one case only is it stated that there was "seemingly some tendency to ulceration." Of six cases of fever also, dissected by Mr. Jacob at Sir Patrick Dun's Hospital, the intestines were healthy in all. Similar observations were recorded of the same epidemic in London and in Edinburgh. The concurrence of epidemics of typhus, relapsing, and enteric fever in no way goes to prove the identity of these fevers; for on similar grounds it might be argued that small-pox, scarlatina, and measles are identical, as, by the way, they were once believed to be. Dr. Stokes, like some other Irish physicians, also tells that he has repeatedly known fever break out in a house, or in a single room, some of the cases being maculated typhus, and others enteric fever. But, as he contends that it is often impossible to distinguish between the two fevers during life—a difficulty in diagnosis which has not been experienced by English, Scotch, German, French, or American physicians since the distinctive characters of the two fevers have been carefully studied—and as he also believes that dothienenteritis may be present in maculated typhus, and absent in typhoid or enteric—the argument has not much weight.

Observers of typhus and enteric fever in Germany, France, Russia, America, and India have repeatedly declared that the description of these diseases by English and Scotch writers tally precisely with their own observations in these widely distant countries; whereas Irish writers are in the habit of arguing that fever in Ireland is different from what it is in London and in Edinburgh, and that British writers on fever—such as Stewart, Jenner, and Murchison—have fallen into error from having worked in too limited a field. It is satisfactory, therefore, to find that an experience of thirty-two years—obtained, by the way, in great part, at the same hospital as that of Dr. Stokes—has satisfied one great student of Irish fevers, Dr. A. Hudson, that the British descriptions are correct, and that typhus and enteric fever differ entirely, not merely in their clinical history and pathology, but also in their genesis and mode of diffusion.

In the eleventh lecture, Dr. Stokes contends that one anatomical result of an essential fever, which may be contagious, is often tubercle; while in the twenty-third lecture it is maintained that the inflammation of the cerebral membranes present in epidemic cerebro-spinal meningitis is another secondary lesion of primary and essential fever.

The twenty-fourth lecture treats of hysteria as a complication of fever, and is of extreme interest. Dr. Stokes agrees with the late Dr. Cheyne of Dublin, in believing that the complication of hysteria is a ground of a good prognosis in every disease, fever alone excepted. "In the early periods of fever, hysterical symptoms generally usher in a great severity of many of the nervous conditions of the disease, while their later occurrence gives rise to singular and often embarrassing complications, even after the fever has run its course" (page 304).

Dr. Stokes is a strong believer in the doctrine of "change of type" in fevers and inflammations, and on this matter he joins issue with Professor Hughes Bennett, Dr. Markham, Dr. Murchison, and other writers (page 20).

On the subject of the contagiousness of fever, or the possibility of its generation *de novo*, the following remarks, it appears to us, deserve to be written in letters of gold. "With regard to this characteristic (contagion), medical opinion has long been divided. You are not, therefore, to stand in the false position of men who are fighting for a particular doctrine, whether they be contagionists or non-contagionists; should you do so, your mind will be occupied with the excitement of controversy, rather than with the search for truth. You will become advocates, while you will cease to be inquirers; and once this change occurs in the mind of the observer, he loses caste in the ranks of science. The advocates of an exclusive doctrine on each side of this great question are able to produce many facts in evidence of their particular views. The facts thus brought forward may be, and probably are, in each case true; but the conclusions drawn from them may not be warranted. It would thus be wrong to infer that a disease was not contagious, from the failure of evidence of its communication even in many instances. Equally illogical would be the deduction that a disease arose only by contagion, even where multiplied examples of such an origin could be appealed to. There can be no doubt that disease has originated, and may originate, without contagion. This must be obvious to every man" (page 48).

In the Preface to his work, Dr. Stokes agrees with Trousseau in condemning the use of the numerical system in medicine, and remarks that the difficulties attending its application are nowhere greater than in the study of essential fever, because of the ever-changing nature of the epidemic type of the disease, and of its secondary local affections. It is clear, however, that these remarks are intended to apply merely to the treatment of fever; for, in the fourth lecture, our author expresses himself in these terms.

"You all know that Professor Louis of Paris founded what he terms the numerical system of medical investigation; that is to say, he attempted to reduce the facts of medicine to numerical expression, so that we should be able, as he supposed, to make medicine an almost exact science. My opinion, I may state, generally speaking, on the subject is, that for the establishment of all that part of medicine which consists in fixing the data of physical diagnosis, the frequency or unfrequency of certain pathological changes, and matters of that kind, the numerical system is infinitely valuable; but we cannot, or have not yet been able to, apply it so as to furnish rules for treatment" (page 52).

We fully concur with Dr. Stokes in the uselessness of the numerical system as a guide to treatment, and we cannot refrain from quoting another passage from the twenty-ninth lecture, bearing on the point.

"I wish to say to the junior members of the class, and indeed to you all, that physicians are to be met with who boast that they do not give stimulants in fever; while, on the other hand, there are men in whose practice their use is a matter of routine. In either of the categories, you may meet with those who refer to and compare the numerical results of their practice. But these men have not learned how inconsequential are such comparisons. They have not learned how fallacious the results of the numerical system are in indicating a line of practice to be adopted in all cases. They have not perceived that life may be saved or lost by the adoption of this or that system—the advocates of stimulation saving those cases which required it, and their opponents those where it was injurious or unnecessary. It is true that the observations of the numerical school have been directed to determine what treatment, in a certain disease, will be followed with success in the greatest out of a given number. But this is not what the practical physician wishes to know. Is it not rather what is best for him to do in the case of A, B, or C? A certain treatment may have been successful in seventy-five cent. of a group of cases, but he knows that this will not justify him in adopting it exclusively in all or any of the remaining twenty-five per cent" (page 375).

The lectures on treatment ought to be studied by every practitioner of medicine. They teem with practical instructions, which could only emanate from an acute and observant physician, who has had a life-long experience of fever on the largest scale. Dr. Stokes justly condemns the so-called alterative treatment, having for its object the improvement of the tongue and the secretions. "This practice," he observes, "would be continued for days, the digestive organs obstinately refusing to right themselves, notwithstanding the treatment, until the patient began to sink, and was perhaps attacked with peritonitis, the result of perforation" (page 380).

There are many other observations which we would willingly quote did space permit, but we would particularly direct attention to the rules which Dr. Stokes lays down for the feeding of fever-patients, and to the indications for the use of stimulants derived from those morbid phenomena of the heart and arteries in fever, to which he was the first to call attention. Altogether, the volume is one which will further enhance the great reputation of its author, as well as that of the Dublin School of Medicine.

CLINICAL MEDICINE: LECTURES AND ESSAYS. By BALTHAZAR FOSTER, M.D., F.R.C.P., Professor of Medicine in Queen's College, and Physician to the General Hospital, Birmingham. London: J. and A. Churchill. 1874.

THE subject-matter of this work has already appeared from time to time in various medical journals, and has justly gained for its author the reputation of being an earnest and careful physician. The material is now collected in one volume under the above title, having been tested by additional experience, and revised by further observations in the same direction.

Essay I is on the Treatment of Ulcers of the Stomach. In this troublesome affection the principle of complete rest—generally from six to ten days—is strongly insisted upon, and cases are given which point to the importance of strict adherence to this rule. The efficacy of using a long rectal tube, for the purpose of allowing a larger amount of fluid to be introduced and retained in the canal, is worthy of note; while the subcutaneous injection of morphia in one case added very materially to the patient's comfort and relief.

Essay II treats of Cyanosis from Patent Foramen Ovale; two children of the same parent, aged respectively three years and eight months and two years, being the patients from whom the symptoms are drawn. In the one, a murmur was heard, synchronous with the first sound, chiefly with the latter half, loudest at the base, but not propagated along the pulmonary artery or aorta; in the second, it had the character of muffling or slight prolongation of the first sound, increased in proportion to the pulmonary congestion. The clinical facts in the one case were verified by a *post mortem* examination. The mother of these patients, again becoming pregnant, was delivered of another cyanotic child, which, at the end of two months, appeared to have lost all traces of the morbid condition, which was never attended with any alteration with the heart-sounds.

In Essay No. III, we have a good specimen of the scientific method in therapeutics in regard to the administration of Ether in the Treatment of Phthisis. The physiological action is first worked out, and then the therapeutical application to a special class of cases is fairly considered and judiciously noted.

In the fourth Essay, on Digitalis in Heart-disease, there are some practical rules of a sound kind as to its administration, while its action is discussed without prejudice, and free from much of the conjectural reasoning which frequently surrounds the attributes of this potent drug.

Rupture of the Aortic Valves from Accident forms an interesting chapter comprising the fifth Essay; and in the sixth, the Synthesis of Acute Rheumatism displays the care with which the author has weighed and recorded the theories of others as to the influence of lactic acid on the causation and treatment of this disease.

One of the most complete accounts we have of the peculiar affection known as Duchenne's Paralysis is given in the seventh Essay, which may be read with much interest.

The subject of certain observations in Diabetes Mellitus is exhaustively dealt with in the eighth Essay, and the following divisions are explanatory of the disease: 1. Defective power in the liver of assimilating and storing up the sugar formed from starch during digestion, or diabetes from defective glycocrypsis; 2. Increased production of sugar in the liver, or diabetes from excessive glycogenesis; 3. Abnormal production of sugar in the liver as regards quality, or diabetes from abnormal glycogenesis. The effect of various remedies on the progress of this malady in these different classes, the temperature in diabetes, and the influence of cold, are the subjects of a series of trustworthy observations of much value and practical importance.

One of the most noteworthy of these interesting essays is the last but one—No. X—relating to the use of the Sphygmograph and Cardiograph in the Study of Diseases of the Heart and Great Vessels, particularly as we are not aware of any published case which illustrates the form of the heart-beat in the several valvular diseases. Marey's observations in 1868, on the cardiographic signs of aortic insufficiency, followed two years after those of Dr. Foster, who had previously shown that the heart-tracings in this complication may be present in other valvular diseases also. Cases 5 and 6 are admirable clinical specimens, while that of tricuspid stenosis—Case 8—diagnosed during life, and confirmed at the necropsy, indicate the acumen brought to bear by scientific aids to the revelation of disease in this special organ. The book closes with the record of a case of embolism following thoracentesis by aspiration in an instance of pleuritic effusion, and forms a pathological study at once rare and suggestive.

Not the least of the attractions of this volume is the clear and distinct arrangement of details in the cases treated of, an element which will render the perusal free from effort. The views which the author has put forth as explanations, and the deductions made, have throughout a clinical bearing of a reliable character, worthy of the dedication aptly given to his former eminent teacher, Dr. Stokes. The book may be taken up with advantage and profit, read with confidence as to its genuineness, and laid down with a feeling of admiration of the author's appreciation of clinical facts, and his facile and reasonable method of putting them.

SELECTIONS FROM JOURNALS.

PATHOLOGY.

RARE CONCRETIONS IN THE URINARY ORGANS.—Dr. C. Fürstner reports in Virchow's *Archiv*, vol. lix, the case of a man aged 72, who had been troubled for two years with symptoms of stone, and died of rigors five days after the first attempt at lithotrity. At the necropsy, the bladder was found to be small and hypertrophied, and to contain six smooth concretions of uric acid of the size of pigeon's eggs, without facets, "like eggs in a bird's nest"; each of them was embedded in a shallow pouch. The mucous membrane of the bladder and ureters was in a state of hæmorrhagic inflammation. The kidneys were enlarged and hyperæmic, and there were hæmorrhages in their capsules. In the cortical substance of the kidneys were numerous yellow softish deposits, partly round, partly radiated; they followed the course of the urinary tubules and passed into the medullary substance, and were a result of the immigration of parasites. The urinary tubules were filled with shining globular bodies, which were not changed by alkalies, acids, alcohol, or ether; and the tubules in this condition formed the centre of the round yellow deposits. The lithotrite had been carefully disinfected before being introduced, and the bladder was afterwards washed out. Another case described by Dr. Fürstner is that of a man aged 62, who died of tuberculosis. There had been no symptoms of disease of the urinary organs during life. The left kidney had a dilated pelvis; and the ureter was enlarged immediately after its origin into a sac, which contained a mulberry calculus of the size of a walnut. Below this, the ureter was of normal size, and received a second ureter, which arose from the upper part of the kidney. The ureter opened into the bladder immediately above the urethra. The right ureter was formed by the union of six roots, which took the place of the pelvis of the kidney.

THERAPEUTICS.

APOMORPHIA AS AN EXPECTORANT.—Dr. Jurasz writes (*Centralblatt für die Medicin. Wochenschr.*, July 4th) that hydrochlorate of apomorphia has been used with success as an emetic in the hospital at Heidelberg during nearly two years; and that he thought it probable that, like other emetics, it would act as an expectorant in small and divided doses. In this expectation he has not been disappointed; for the drug has been proved to be an useful expectorant in all the cases in which it has been used—comprising cases of tracheitis and bronchitis, and also inflammation of the larger and smaller bronchial tubes. The tenaceous sputa were in all cases readily dislodged, and their discharge was greatly facilitated. The rhonchi, at first dry, blowing and whistling, became moist, and always diminished. The remedy was administered according to the following formula: Hydrochlorate of apomorphia, 1 to 3 centigrammes (0.4 to 1.2 grains); distilled water, 120 grammes (4 ounces); hydrochloric acid, 5 drops; simple syrup, 30 grammes (about 1 ounce): a tablespoonful to be taken every two hours. The amount of apomorphia in each dose was thus from 1 to 3 milligrammes (0.04 to 0.12 grain). The patients stated that the first spoonful caused slight uneasiness, which, however, did not follow the administration of the second dose. The hydrochloric acid was added to remove the tendency of the apomorphia to assume a green colour when in solution.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 37, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 29TH, 1874.

RECENT ADDRESSES.

THE addresses delivered at the meeting of the British Association, which we print to-day, and those which we published in recent issues, while reporting the proceedings of the British Medical Association, deal with the highest problems of life and with the most complex parts of the basis of the science of medicine. None can have read the address of Dr. Russell Reynolds without admiring the conscientious labour which was bestowed upon it, and the delicate and refined thought which was clothed in words of more than ordinary eloquence. It is particularly instructive to compare the addresses of Huxley and of Tyndall with that of Dr. Reynolds. They illustrate habits of thought widely sundered, and will, perhaps, be differently judged, according to the amount of knowledge and the mental attitude of different readers. By many, Dr. Russell Reynolds's teaching will be severely judged. They will analyse the drift and purpose of his argument, and find in it little that satisfies the restless thought of modern searchers after progress. They will fret impatiently, or toss aside scornfully such phrases as those in which he exhorts his readers and hearers to "admit the separateness of life-force from all other forces", to "acknowledge its mystery", and to treat it as an unsearchable enigma. They will treat his illustrative examples and evidences with little less impatience, and will ask if Dr. Reynolds seriously means to maintain the assertion that physicists either have ceased or ought to "cease to question the nature of the simpler forces, such as gravitation or heat", and "have admitted that their essence is beyond our ken". The view that gravitation or heat is an ultimate force having a mysterious essence not to be questioned, will appear to them little in accordance with the progress or present state of physical science, and unfortunately inapt to maintain or illustrate the view that life also is an ultimate essence not to be investigated or questioned. Time was, when popular teachers held that such a phenomenon as that of thunder in the skies was also to be considered mysterious and unsearchable, a voice speaking of a celestial interference not to be questioned, and before which we should humbly bow down as before an unsearchable enigma. Dr. Russell Reynolds's repetition of these formulæ, when speaking of vital force, will seem to many, therefore, not to afford a resting-place for thought or a basis for sound speculation. Nor will they be disposed to treat as invincible the distinctions as to the mystery of life which Dr. Russell Reynolds bases on the very questionable statement that insanity is a peculiar attribute of life as manifested in man, as distinguished from animals. Turning from this to the addresses of Huxley and of Tyndall, they will find more congenial matter for thought in the earnest gaze with which the great physicist and biologist who spoke at Belfast surveyed the gradual clearing of the fogs of mystery in the last century, and brought to us the edge of the cloud into which they are still earnestly gazing. While reverently exalting the Power by which life is evolved, species differentiated, and mind unfolded from their prepotent elements in the immeasurable past, Professor Tyndall led his hearers through the work of the physicist, the biologist, and the physiological inquirer, and boldly stated a solution which differs fundamentally from the Canute-like dictum of Dr. Reynolds. The key-note of this part of his most notable address, which want of space prohibits our reproducing, but which will be found entire in *Nature*, will be found in this paragraph.

"The *origination* of life is a point lightly touched upon, if at all, by Mr. Darwin and Mr. Spencer. Diminishing gradually the number of progenitors, Mr. Darwin comes at length to one 'primordial form'; but he does not say, as far as I remember, how he supposes this form to have been introduced. He quotes with satisfaction the words of a celebrated author and divine who had 'gradually learnt to see that it is just as noble a conception of the Deity to believe He created a few original forms, capable of self-development into other and needful forms, as to believe that He required a fresh act of creation to supply the voids caused by the action of His laws'. What Mr. Darwin thinks of this view of the introduction of life I do not know. Whether he does or does not introduce his 'primordial form' by a creative act, I do not know. But the question will inevitably be asked, 'How came the form there?' With regard to the diminution of the number of created forms, one does not see that much advantage is gained by it. The anthropomorphism, which it seemed the object of Mr. Darwin to set aside, is as firmly associated with the creation of a few forms as with the creation of a multitude. We need clearness and thoroughness here. Two courses, and two only, are possible. Either let us open our doors freely to the conception of creative acts, or, abandoning them, let us radically change our notions of matter. If we look at matter as pictured by Democritus, and as defined for generations in our scientific text-books, the absolute impossibility of any form of life coming out of it would be sufficient to render any other hypothesis preferable; but the definitions of matter given in our text-books were intended to cover its purely physical and mechanical properties. And, taught as we have been to regard these definitions as complete, we naturally and rightly reject the monstrous notion that out of *such* matter any form of life could possibly arise. But are the definitions complete? Everything depends on the answer to be given to this question. Trace the line of life backwards, and see it approaching more and more to what we call the purely physical condition. We reach at length those organisms which I have compared to drops of oil suspended in a mixture of alcohol and water. We reach the *protogenes* of Haeckel, in which we have 'a type distinguishable from a fragment of albumen only by its finely granular character'. Can we pause here? We break a magnet and find two poles in each of its fragments. We continue the process of breaking; but, however small the parts, each carries with it, though enfeebled, the polarity of the whole. And when we can break no longer, we prolong the intellectual vision to the polar molecules. Are we not urged to do *something* similar in the case of life? Is there not a temptation to close to some extent with Lucretius, when he affirms that 'Nature is seen to do all things spontaneously of herself without the meddling of the gods'? or with Bruno, when he declares that matter is not 'that mere empty *capacity* which philosophers have pictured her to be, but the universal mother who brings forth all things as the fruit of her own womb'? The questions here raised are inevitable. They are approaching us with accelerated speed, and it is not a matter of indifference whether they are introduced with reverence or irreverence. Abandoning all disguise, the confession that I feel bound to make before you is, that I prolong the vision backward across the boundary of the experimental evidence, and discern in that matter, which we in our ignorance, and notwithstanding our professed reverence for its Creator, have hitherto covered with opprobrium, the promise and potency of every form and quality of life."

Professor Huxley, penetrating with splendid firmness of step and undimmed mental vision into some of the most interesting phenomena of life, unravels the intricacies of some of the more complex actions of the brain, traces nervous and mental phenomena to associated physical changes, and adds one stone more to that fabric of accumulated fact and deduction on which we may one day hope to stand at such an altitude as will enable us to see further into the land of mystery, and to learn not to shrink from any enigma as unsearchable, and, knowing more, to believe not less firmly, to guide ourselves more rightly, to lend to others who totter or who fall a more unfailing and benevolent help. Such an address as this at once measures the progress of the past and gives high promise of the future. That of Professor Redfern is delightfully clear, and surveys the march of structural investigation with admirable judgment and ample knowledge.

REPORT OF THE SCOTTISH LUNACY COMMISSION.

THE sixteenth report of the General Board of Commissioners in Lunacy for Scotland, just issued, is drawn up with care and regard to scientific accuracy. Side by side with the corresponding English production, it enters more deeply into speculations which are of great interest, and upon which the commissioners, from the varied and extensive field of their labours, are entitled to speak with authority. Such matters are, the actual increase in the number of insane persons under cognisance, and the causes for the increase; the social conditions of various districts which, by sudden development of trade, wealth, etc., cause an influx of persons from less attractive localities, with a corresponding disturbance of the sanitary equilibrium; the comparative rates of mortality and of recoveries, etc. Still it is to be regretted that nothing new is said about the Scotch system of boarding-out, of which so much was boasted at its first appearance, but in the carrying out of which many eminent Scotch asylum superintendents have expressed themselves disappointed; and this makes the silence of the Commissioners all the more ominous.

All estimates of the actual, or only apparent, increase of insanity must be useless, so long as insane persons, maintained in private dwellings by their friends, are unreported; and though the Commissioners formerly estimated these at two thousand, yet "they are now less numerous, from the increasing tendency to accept parochial relief". When it is considered, however, that, in 1873, the actual increase of pauperism was only a hundred and five, and of private patients in establishments only fifteen, the importance of having all insane persons reported, whether in public asylums or dwelling privately with their friends, is apparent. France has recently shown the fluctuations that may appear in the insane population, under different conditions of success and prosperity. After the war with Germany, many families, which had previously maintained their insane relatives, became unable to do so any longer; these persons were then sent to the various public asylums, the result being that lunacy has apparently (not really) made an enormous stride in that country, and the cry is raised for the erection of new buildings to relieve the overcrowded institutions. Many difficulties are in the solution of this vexed question, and one source is the indefiniteness of the term "insane", and the interpretation that different medical men place upon it. Thus, to quote from England, the establishment of the new metropolitan asylums at Leavesden and Caterham, theoretically workhouses, but really asylums, will add about 3,700 to the yearly list of "insane paupers"; but many of these, had they remained in the workhouses, would never have been so classed, because they were not under any certificate of insanity, and were never subjected to control in any part of the workhouse set apart for the treatment or care of the insane.

The total number of insane persons in Scotland is given as 7,982, being an actual increase of 2,029 in the last fifteen years. These 7,982 persons are distributed in royal and district asylums (where, curiously enough, the numbers of males and females are almost equally divided), in private asylums, workhouses, prisons, imbecile schools, and private dwellings. The proportion is thus seen to be 232 out of every 100,000 inhabitants; whilst, in 1853, it was 208 to 100,000, the increase being entirely due to the increased number of lunatics in asylums. The discrepancies in the pauper lunatics of different counties are curious; and it would appear that in some, *e.g.*, Renfrewshire, the forms of insanity are more acute and less enduring than in others, *e.g.*, Perthshire. The causes of these differences are not very evident; they do not depend on geological differences of soil, nor on great differences in climate, but probably arise from the fact, that special local causes have determined the "set" of persons of a definite organisation of mental or bodily constitution, congenital or acquired, in one direction, leaving other towns benefited or not as the case may be. Thus, in contrasting the lunacy of a busy thriving population with that of a community which is less busy, there can be little doubt that active and acquired insanity is much more prevalent among the former, and idiocy and imbecility among the latter. Besides, the one community gathers strength from the infusion of new blood, whilst the other deteriorates, from the helpless material left behind.

The proportion of paupers, in the period of years from 1860-1873, has not increased in anything like the ratio of pauper lunatics to the population; emigration, and a better administration of the Poor-laws, have doubtless tended to keep the poor-roll down.

Regarding insanity as a bodily disease depending on accidental causes, the Commissioners give it as their opinion that it is a preventable malady, and that, in the perfection of systems of education, engendering better knowledge of the rules of health and of moral conduct, they look for the lessening of the evil, and absence of any necessity for more asylums. Drink, as usual, comes to the fore in the causation of insanity, and they ascribe twenty-five per cent. of the admissions to intemperance. This appears to us a low estimate; for English experience tends to show that, direct and indirect causes taken together, the proportion is nearer fifty per cent.; and French and German experience corroborates this. Proverbially, the mortality in all asylums is high, being about four times as great as that of the general population; whilst, compared with the quantity of liquor consumed in a corresponding population in the outside world, the asylum would appear almost as a teetotal institution. Is it possible that much of the large mortality is owing to the sudden deprivation of the stimulation to which many of the inmates were accustomed before their admission, their food being changed in quality, and very frequently of such a nature that their palled stomachs cannot digest it? The experiment was lately tried in a north-country asylum of doing away with stimulants altogether, but the mortality-bill soon rose to such an extent that the practice had to be discontinued.

In discussing the causes of death, some general conclusions at which the commissioners arrive are that epilepsy, general paralysis, organic disease of the brain, and inflammatory affections of the lungs are more fatal to males than to females; and that maniacal and melancholic exhaustion, organic disease of the abdominal viscera, dysentery, and diarrhœa are more fatal to females than to males; whilst general paralysis is more fatal in those asylums where there is a large admixture of city patients than in those deriving their population from a rural source, the difference amounting in some instances quoted to more than four per cent.

The fallacy of comparing the mortality of asylum patients with that of the general community is pointed out; and we might add that, both in this particular and in that of recoveries, it is useless, and at times unfair, to compare asylums amongst themselves, without more precise discrimination of the classes of patients, diet, soil, medical attendance, nursing staff, etc., than is generally made. Just as hospitals differ in their mortality-bills according to the class of cases they receive, and the peculiar ideas of the responsible medical men, so do asylums; no two are the same in any particular, and the ever-changing social conditions of the counties whence the asylum populations are derived make it impossible that they ever should be.

The report closes with some remarks on the Larbert Training School and Columbia Lodge for Imbecile Children. These institutions, conducted much after the fashion of Earlswood and the Royal Albert Asylum at Lancaster, seem well adapted to their ends—viz., the training of idiots and imbeciles by a combination of science, patience, and perseverance. In these places, as in lunatic asylums, the advantages of early treatment are insisted upon; and if the idiot or imbecile is to be improved, he must be sent before bad habits have become confirmed, and whilst there is a hope of developing as much sound brain as exists.

As might have been expected, the expenses of conducting establishments have increased of late years out of all proportion to the increase in the number of lunatics; but, whilst we must, in the face of rising prices, simply shrug our shoulders and pay, whilst enforcing as strict an economy as possible, it is satisfactory to be assured, on so eminent authority as that of the Commissioners, that there is no actual increase in lunacy, and that the question of its possible extinction is no chimera.

THE Emperor of Austria has conferred the decoration of Knight of the Order of the Iron Crown, with a patent of hereditary nobility, on Dr. Julius von Haast, Director of the Museum of Canterbury, New Zealand, in recognition of his eminent scientific merits and attainments.

The Town Council of Portsmouth have decided to erect a new asylum for the town, at a cost of £36,000.

We understand that Mr. E. Bellamy, of Charing Cross Hospital, has been appointed to deliver the course of lectures on anatomy in the Government Art and Science Schools at South Kensington.

The Bill to amend the Medical Act (1858), which was advocated by Sir Dominic Corrigan at the last session of the Medical Council (see British Medical Journal, July 18th, page 81), has been issued, having been introduced into the House of Commons by Dr. Brady, Mr. Errington, and Dr. Lush.

MOSQUITOES IN THE FLESH.

We have received a practical contribution towards the settlement of the question whether mosquitoes have reached London at the close of the season, in the persons of two undoubted but slightly damaged specimens which Dr. George Hoggan, of Granville Place, Portman Square, has left at our office. He writes as follows.

"The appearance of the mosquito in London has already been twice signalled this week in letters to the *Times;* and I beg leave to send you, as corroborative evidence, two mosquitoes whose acquaintance I made in Hyde Park on Monday evening. I was sitting quietly reading on one of the seats in the park, when my attention was attracted by the peculiar movements about my person of two individuals, whom I at once suspected of being members of a family with whom I had been connected with the closest ties of blood for about ten years. On gently laying down my book, one of the pair settled in the wonted gentle manner on the back of my hand, and, after taking a turn or two in search of a part soft enough for digging operations, fastened his proboscis with the usual sharp sting of pain. This last act, I considered, presumed too much on old acquaintanceship; so, without waiting for him to complete the tragedy by becoming gorged with my blood, I caught him *secundum artem*, and send him to you. I am only sorry that the slight necessary violence used by me in his capture has so spoiled his personal appearance that a photograph would give no idea of his living condition. I may say that I also caught the second one in the air. They proved to be male and female."

THE GODDESS SMALL-POX.

Mr. M. J. Walhouse, in a paper entitled "On a Leaf-wearing Tribe on the Western Coast of India". states, amongst other curious particulars of ethnological interest, that, like all the slave castes and lower races, the Koragars, the tribe in question, worshipped Mari Amma, the goddess presiding over small-pox, and the most popular deity in Carnara, represented under the most frightful form, and worshipped always with bloody rites. We have often been puzzled to know where the members of the Anti-Vaccination League might find congenial society, and how best to deal with them. We would venture to suggest emigration to the Western Coast of India.

HEALTH OF THE METROPOLITAN POLICE.

The Report of the Chief Surgeon of the Metropolitan Police shows, for the first time since these statistics were collected, an increase on the previous year in the average rate of sickness, as shown by the daily loss. The increase, however, is not great, the percentage having simply risen from 2.48 to 2.66, and was anticipated, owing to the mildness of the winter season of 1872, which reduced the number of sick cases in the later months of the year, as compared with former years. The average daily number of sick in the police force in 1873 was 265. The number of deaths was 44, the ratio being almost exactly the same as in the year preceding. Out of the 44 deaths, as many as 12 are attributed to consumption and "disease of the lungs". During the year, 255 of the force were recommended for pension or gratuity as invalids, being a somewhat high number, compared with past periods. The principal causes of men being thus invalided are enumerated as rheumatism, rheumatic gout, and sciatica, whereby 71 were permanently laid aside. Long service and debility account for 49, phthisis (including "disease of the lungs") 28, and disease of the heart 13. In all other cases, the number is less than 10.

LEAD-POISONING BY AERATED WATER.

Mr. A. T. Wilson, surgeon, of Lennoxtown, Campsie, has had a similar experience to that which was recorded in our columns some months since (British Medical Journal, February 14th). He relates a case of lead-poisoning recently under his care.

"My patient had been ailing some months. I was very much perplexed by the anomalous nature of her symptoms, the idea of poisoning never entering my mind until, in the course of her illness, well marked symptoms of lead-poisoning showed themselves.......I immediately mentioned my convictions to the patient and her friends; and you can fancy the distress and anxiety caused in their minds by such an announcement. They were equally at sea with myself as to the source of the poison. The water-supply of the house was naturally the first thing to be suspected, as it was led through the house in leaden pipes; but, on being analysed, it was found to be quite free from the least trace of lead. Various other articles were subjected to analysis with a like result. I had the benefit of a consultation with my friend Professor Leishman of Glasgow on the case, and he concurred with me in the opinion that the case was one of well marked lead-poisoning. We were still at fault, however, as to its source, until eventually it occurred to me that I had prescribed soda-water largely to assuage the patient's thirst and relieve sickness; and, on inquiring, I found she had been taking it to the extent of six or seven bottles per day; and that, previously to her illness, she had been partaking of it freely as a beverage. I also found that no other member of the family was in the habit of taking it to any extent. I gave some of the soda-water to a friend to analyse, and the result was, that distinct evidence of the presence of lead was obtained. In order, however, to make sure of the matter, a bottle was taken to Dr. Wallace, analytical chemist, Glasgow; and his report shows the presence of lead in very dangerous quantities indeed. I may mention that the soda-water was obtained from a very respectable firm in Glasgow, whose name I refrain from mentioning in the meantime, as I do not know what action may be taken by my patient's friends with regard to them. My object in writing you will be sufficiently attained if the public are put on their guard with regard to a beverage which is so largely consumed by all classes of the community, and especially invalids."

The following is Dr. Wallace's report.

"Chemical Laboratory, 42, Bath Street, Glasgow,
August 17th, 1874.

"I have made a careful examination of a bottle of soda-water handed to me this day by Major Graham Stirling, Craigbarnet, and I find the water to contain lead in the proportion of nine-tenths of a grain in a gallon. An ordinary soda-water bottle contains ten ounces of liquid, or one-sixteenth of a gallon; so that a person taking four bottles daily would be swallowing about a quarter of a grain of lead each day—a quantity far more than enough to give rise in a week or two to symptoms of lead-poisoning. The fact that soda-water may be contaminated with lead is a highly important one, and I think it is the imperative duty of the discoverer to make it known to the public. I may add that ordinary drinking-water is considered dangerous if it contains one-tenth of a grain of lead per gallon; and that some authorities consider even one-twentieth of a grain deleterious to health, if the water is used continuously for a series of weeks or months.

(Signed) "William Wallace, Ph.D., F.R.S.E., F.C.S.,
"Consulting and Analytical Chemist."

PLAGUE IN ARABIA.

A correspondent writes: There is no longer any doubt that the plague has broken out in Arabia (in Assyr), and the Egyptian sanitary authorities have subjected an Austrian steamer, the *Oreste*, to twenty-one days' quarantine at a place called El-Wedg, ten miles from Suez. This steamer arrived from Jeddah and Hodeidah some five days ago, having left those ports just as some cases of the plague had occurred.

THE UNIVERSITY OF VIENNA.

In the academical year just ended, the total number of students in the University of Vienna was 7,526. The numbers in the Faculty of Law were the largest, being 1619 in the winter, and 1,571 in the summer; next came the Faculty of Medicine, with 1,109 in the winter, and 1,036 in the summer. In the winter, there were 891 students of Philosophy and Pharmacy, and 822 in the summer; and the Theological Faculty numbered 194 in the winter and 184 in the summer session. There were 194 new students of medicine, and 228 left the

University. At the examinations, 140 medical candidates were approved, and 13 rejected. Degrees were conferred as follows: Doctors in general medical practice, 137; of surgery, 33; of medicine (according to the old regulations), 20. Diplomas of Master were granted as follows: Pharmacy, 54; midwifery, 35; dentistry, 3; ophthalmic surgery, 2; 114 midwives also received diplomas. The records of the numbers attending the classes show that, in the Faculty of Medicine, Professor Brücke had a class of 885; Hyrtl (winter only), 680; Langer, 555; Bamberger, 540; Billroth, 509; Dumreicher, 495; Duchek, 389; Rokitansky, 354; Karl Braun, 225; Arlt, 218; Vogl, 157; Späth, 126; Sigmund, 94; Meynert, 70.

ACTION FOR ALLEGED UNSKILFUL TREATMENT.

At the Liverpool Assizes on August 22nd, in the case of Brelsford *v.* Rigby, the parents of a girl ten years of age, residing in Chorley, brought an action against Dr. Rigby of Chorley to recover damages for alleged unskilfulness. The child had fallen over a fender and received a compound fracture of her left arm. The defendant was called in, and it was alleged that his treatment by tight bandaging had induced mortification and rendered amputation necessary. His case was supported by Mr. Bradley of Manchester. On the other hand, Mr. Southam of Manchester, and Mr. Hakes of Liverpool, gave evidence to show that the treatment had been properly conducted. The jury, however, found for the plaintiff—damages £150.

ACTION FOR NEGLECT AGAINST THE MANAGER OF A LUNATIC ASYLUM.

An action was tried in the Western Circuit, at Bristol, before Mr. Justice Brett, on August 12th, which was brought by a young gentleman named Broad against Dr. Lyle, the Superintendent of Warford House Asylum, near Exeter. Mr. Broad, having become insane, and having suicidal tendencies, had been placed in Dr. Lyle's asylum; and one night in December last, having broken the window, jumped to the ground—a distance of about thirty feet. The result was, that he injured his spine to such an extent as to produce complete paralysis of the lower limbs; but at the same time he became perfectly sane, and remained so at the time of the trial. The action was brought to recover damages on account of imperfect supervision; but the judge ruled that there was no evidence of negligence on the part of the defendant for which he was legally responsible. The plaintiff was nonsuited.

VISIT OF THE EMPRESS OF AUSTRIA TO BETHLEHEM HOSPITAL.

The Empress of Austria visited Bethlehem Hospital on Tuesday last, and spent two hours in the wards. Her Majesty saw all the patients, both male and female, and took the greatest interest in the various cases. On leaving, Her Majesty expressed to Dr. Rhys Williams, the resident physician, the great satisfaction she had derived from her visit.

MEDICAL EDUCATION IN JAPAN.

An interesting report has been prepared by Her Majesty's Secretary of Legation at Yedo, Mr. Watson, dealing with the educational system of Japan; and from this report we obtain some interesting information as to the mode of medical instruction. One of the chief educational establishments now in operation at Yedo is the "Dai Gakko", or University, which includes several separate colleges for the study of medicine, jurisprudence, etc. A college of medicine and surgery was opened in 1871 at Yedo. Attached to this college is a preliminary school, in which German, Latin, mathematics, chemistry, natural philosophy, natural sciences, geography, and history are taught. This course—at present for two years—is to be extended gradually to three and six years. There is also the college (academy) proper, in which medicine and surgery in all their branches are thoroughly taught, both theoretically and practically; as also, for the present, German, chemistry, natural philosophy, and natural sciences. The prospectus ("studienplan") is calculated on a course of six years, at the end of which the student will be entitled, after having passed an examination, to a doctor's diploma and Government employment. It is further mentioned that to the college will be added, in the autumn of this year, an "Apothecary's School", the students of which will be obtained from the preliminary school. The course of the "Apothecary School" will be three years; and it is the intention to select some of the qualified doctors for the purpose of being sent to Europe to complete their education, either for specialities or as professors for the college. The whole teaching is now conducted under the independent supervision of German professors, without any interference on the part of the Japanese authorities. New admissions take place in the autumn. The age of admission is nominally sixteen years. In addition to the regular students, a number of Japanese doctors have hitherto been admitted for the purpose of qualifying themselves for the requirements of the native hospitals. Their education, it is mentioned, is "incomplete and one-sided". In future, this kind of teaching is to be discontinued. The students are supplied with board, lodging, clothing, fuel, and light from the institution. The instruction is free, and the students receive, by way of loan, the necessary books and instruments; or, if they wish to buy them, they are charged at cost prices. For these advantages, they pay a monthly contribution of ten dollars. If they cannot pay, they are allowed credit, until they have received their diploma and Government employment, when one-fifth of their salary may be deducted until such time as the debt is paid off. On the other hand, should they be unable to pass their examination, or be dismissed before they have completed their studies, they will be liable to serve the Government in some subordinate capacity until the debt is redeemed. The following is the list of the professors at this college: Dr. Muller, staff-surgeon major of the Prussian army, for surgery, and as dentist and accoucheur; Dr. Hoffman, staff-surgeon, Prussian navy, for internal medicine; Dr. Woenitz, for anatomy and physiology; Dr. Cochins, for chemistry and natural philosophy; Dr. Hilgendorf, for natural science and mathematics; Dr. Funk and Mr. Holz, for languages; and Mr. Neeworth, apothecary. Mr. Watson also mentions that, at the Government hospital in Nagasaki, there are forty-one students studying medicine under the supervision of two Dutch doctors. A Prussian has lately been engaged, who will teach these students the Dutch and Latin languages. There are also a hospital and a medical school at Saga, the capital of Hizen. This is under the direction of Dr. Junghaus, described as a German North American. It is estimated generally that there are at present about a hundred and fifty young Japanese who are students of medical science. As further indicative of the progress of Japanese civilisation, Mr. Watson mentions that lock hospitals have been established at several of the Treaty ports; and that at the educational establishments the students are required to adopt foreign clothing, and to be attended by European medical officers.

ENLARGEMENT OF KING'S COLLEGE.

A new and lofty wing is being added to this College. The architecture will be in keeping with the present style of the building; and the frontage of the wing will be towards the embankment. The dissecting-rooms and laboratory will be considerably enlarged, and new consulting-rooms are being erected.

HASSALL AND WANKLYN ON ANALYSIS OF BUTTER.

As might be expected, Dr. Hassall gave a good deal of evidence before the Select Committee on the Adulteration Act; and a very curious display he appears to have made. Without following Dr. Hassall through his expressions of opinion, it may be noted, with interest, that he committed himself to a scientific statement on the subject of the analysis of butter, professing to be able to distinguish the amount of fats in so-called butter; a matter of some importance, on which we have before had occasion to comment, in connection with the statements of another public analyst. In *Food, Air, and Water*, for July, there is a paper giving the result of an analysis of butter in Dr. Hassall's laboratory at Ventnor. In it the curious statement is made, that butter contains "a considerable quantity of butyric acid, which amounts to nearly ten per cent. of the butter-fat". It is furthermore stated that the insoluble fatty acids in pure butter-fat amount to from 85.48 to 85.71 per cent., whilst the insoluble fatty acids in mutton-fat are 95.6 per cent. Based on these propositions, a method of distinguishing between butter-fat and certain other fats is propounded. Mr. Wanklyn, commenting upon this in the *London Medical Record*, observes:

> "That pure butter-fat contains about ten per cent. of butyric acid, is somewhat startling to a chemist. A few weeks ago, I had occasion to determine the quantity of butyric acid present in butter, either in the free state or in the form of butyrate of glycerine. From ten grammes of excellent fresh butter, the history of which I know, after saponification with caustic potash, I could not obtain more than 0.01 gramme of soluble and volatile fatty acids. Instead of ten per cent. of butyric acid, I got not more than 0.1 per cent. Rancid butter appears to yield somewhat more butyric acid than fresh butter; thus, from rancid butter, I got upwards of 0.5 per cent. of volatile fatty acids. Possibly the small quantity of butyric acid in rancid butter is developed by a kind of fermentation. The further statement that butter-fat yields only eighty-five per cent. of insoluble fatty acids, whilst mutton fat yields ninety-five per cent., is very interesting, if true. It would seem to point to the existence of mono- or di- instead of tri-palmitate of glycerine in butter."

Mr. Wanklyn drily adds, "there is, however, a much simpler mode of explanation. Possibly the butter-fat was not quite dry".

THE NATIONAL HOSPITAL FOR INCURABLES AT OXFORD.

THIS building, which is situated near Oxford, has now been completed, and is open for inspection. The Lady Superior appeals for assistance, both in kind and money, especially for furniture. She also intends to finish an incomplete wing, and applies for funds with which to build the chapel of the institution, for which £10,000 is required. The foundation of the hospital was commenced May 6th, 1873. It is to be open to the whole kingdom.

HOSPITAL SATURDAY FUND.

AN open-air meeting for promoting this fund was held on the 22nd at Blackheath, under the presidency of Captain Mercier. A local committee for Greenwich and Deptford was appointed, and a vote of thanks to the Chairman concluded the proceedings. A meeting of the Executive Committee was subsequently held, at which it was reported that the movement was making progress in various parts of London, and that collections in aid of the fund were already in progress in several workshops with every prospect of success. It was also announced that a grand *fête* in aid of the funds will be held at the Crystal Palace early in October.

THE CORONERS OF MIDDLESEX.

A PARLIAMENTARY return has just been issued to the House of Lords, which shows the amount of disbursements made by each of the coroners for the county of Middlesex during the five years ending 30th June last. In that period, Dr. Diplock received respectively—£1,048 16s. 6d in 1869-70, £1,118 18s. 8d., £1,278 5s. 6d., £1,424 9s., and £1,381 18s. 6d.; Dr. Lankester, £3,847 5s. 4d., £4,620 6s. 6d., £3,894 14s. 6d., £4,098 4s. 6d., and £4,144 8s.; Mr. Humphreys, £2,816 14s. 6d., £2,932, £2,929 5s., £2,985 9s. 4d., and £3,145 16s. 1d.; Mr. Bedford, £689 16s. 6d., £728 18s., £735 2s., £795 15s. 6d., and £705 1s.; and Mr. Payne received in the several years £64 14s. 10d., £97 9s. 8d., £62, £102 6s. 6d., and £93 9s. 6d.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AT VENTNOR.

THE Earl of Strafford has just munificently contributed the amount necessary to become a donor of one of the sixteen hospitals or houses of which the institution is composed. This hospital is to be called The Lady Agnes Byng's Hospital, and is in memory of the Earl of Strafford's first wife, the late Lady Agnes Byng, fifth daughter of Henry, Marquis of Anglesey. All the hospitals or houses are now either built, or in course of erection, excepting the two subsidiary hospitals. Funds are, however, still urgently required for many works still necessary, and for maintenance.

PROFESSOR GRANT.

DR. ROBERT EDMOND GRANT, F.R.S., the distinguished comparative anatomist and zoologist, died on Friday, the 21st instant, at his residence in London. Dr. Grant, who was born in Edinburgh on November 11th, 1793, was a son of Mr. Alexander Grant, Writer to the Signet. He received his early education at the High School, Edinburgh, and commenced his medical studies in the University of that city in 1808. In May 1814, Dr. Grant obtained his diploma as surgeon from the Royal College of Surgeons; and on June 24th, in the same year, he graduated as M.D. at the University of Edinburgh. After visiting the medical schools of Germany and France, he returned to Edinburgh, and commenced the practice of his profession in 1820. He also gave courses of lectures on comparative anatomy. On the organising of University College, London, in 1827, Dr. Grant accepted the Chair of Comparative Anatomy and Zoology. Of the staff of professors who were appointed at the opening of the College, he was the last survivor. In 1833, Dr. Grant delivered a course of lectures before the Zoological Society of London on the structure and classification of animals. In 1837, he was appointed Fullerian Professor of Anatomy and Physiology at the Royal Institution of Great Britain. He was subsequently appointed by the trustees under the will of the late Dr. Swiney to deliver a course of lectures on palæontology, an appointment he has several times filled. Dr. Grant was a great contributor to the *Transactions of the Zoological Society*, and was the author of a work on *Comparative Anatomy*. Dr. Grant was a member of numerous scientific societies in Great Britain and abroad, and a Fellow of the Royal Societies of London and Edinburgh.

NEW INFIRMARY FOR WARRINGTON.

IT has been decided to erect the new Infirmary and Hospital for Warrington on the site originally fixed upon for it at Bank Park Gardens, Warrington, notwithstanding that considerable opposition had been made to that particular site by the Medical Committee.

ACTION AGAINST AN INSURANCE COMPANY.

THE case of Dr. Jay *versus* the Gresham Life Assurance resulted in a verdict for the plaintiff on the 24th instant. The action was brought by Dr. Jay to recover £3,000, the amount of a policy effected on the life of his late wife; and payment was disputed by the company on the ground that material facts had been suppressed when the policy was effected. It was alleged by the defendants that deceased was of intemperate habits, and a vast amount of contradictory medical evidence was produced. Dr. Jay denied that Mr. Dale, a surgeon at Scarborough, had spoken to him before the marriage, and had warned him that the lady was addicted to drinking and suffered from enlargement of the liver. Mr. Baron Amphlett, in summing up, alluded to the way in which the case had been got up, saying that Dr. Steele's letter was no doubt an attempt to get evidence for the office. His lordship condemned the practice of a great insurance company getting evidence in that way. As to the words in a letter from Dr. Jay to Dr. Steele, "I never knew until I was married and the life insured that Mrs. Jay's failing was of long standing", the jury would have to consider whether there was a reasonable construction to be put upon them. The jury, after five hours' consideration, gave a verdict in favour of Dr. Jay, after four days' hard fighting.

PURE WATER ON BOARD SHIPS.

SIR A. ARMSTRONG, the Head of the Medical Department of the Admiralty, having urged upon the authorities the urgency of supplying pure water to Her Majesty's ships, a large number of charcoal filters have in consequence been purchased, and are now in course of delivery. The filters are constructed on the charcoal block system. For this great hygienic reform the Navy will long be indebted to Sir A. Armstrong.

A VETERAN ARMY SURGEON.

AT Wrington, North Gloucestershire, the inhabitants have been celebrating the marriage of the granddaughter of Dr. Young, formerly

Surgeon to the 28th Regiment. Dr. Young served in the Peninsula from March 1811 to February 1813, including the last siege of Badajoz and battle of Salamanca. He served also in the campaigns of 1813-14-15 in Germany, Holland, and the Netherlands, including the attack on Bergen-op-Zoom and battle of Waterloo. He has received the war medal with two clasps for Badajoz and Salamanca.

DEATH FROM HYDROPHOBIA.

A WOMAN, named Elizabeth Cartwright, married, and residing at Blackbrooke, near St. Helens, Lancashire, has died from hydrophobia. Deceased, about a month ago, on going into her own yard, found a dog there which belonged to a neighbour; the animal flew at her, and bit her in the cheek and nose. She did not feel any serious effects until a few days ago, when she was seized with illness. Dr. Ricketts was called in, and ordered her removal to the Cottage Hospital, where he attended her; but she died after suffering from all the symptoms of the malady.

THE REPORT OF THE MEDICAL REFORM COMMITTEE*

THE last session of Parliament has not been fertile in legislation, owing, doubtless, in no slight degree, to the sudden and unexpected resignation of the late Ministry, and the consequent unpreparedness for activity of the new Government.

During the past year, the Medical Reform Committee, in the exercise of that discretion allowed by the Association, have felt that they would not have been serving the cause of Medical Reform by pressing forward the Bill of the Association. The Bill of the Association has, however, been fully prepared, and embodies the principles for which the Association has long contended.

First. It provides for the admission to the General Medical Council of direct representatives of the profession in the proportion of one-fourth of the numbers of the Council, in order that the objects and interests of the profession, in so far as they may be distinct from those of the Universities and Licensing Bodies, may be submitted to and duly advocated in the debates of the General Medical Council.

Secondly. The Bill of the Association will confer on the General Medical Council, thus modified so as to represent not only the Government, the Universities, and the various Licensing Corporations, but also the general body of the profession, more important and greater powers than the Council at present possesses, for it will grant to the proposed Council efficient control over the education and examinations of all candidates seeking to enter the medical profession. No Licensing Corporation will, after the passing of the Bill, be in a position to disregard the mandates of the Council.

Thirdly. The Bill will enable the various Universities and Corporations to form—subject to the approval of the General Medical Council—a conjoint examining board for each of the three divisions of the kingdom; but in case the Universities and Corporations in either division of the kingdom should not succeed in doing so, the General Medical Council shall then have the power and be required to form a conjoint examining board for any such division of the kingdom.

Fourthly. The conjoint boards will be framed on the principle of equal fees and equal examinations.

Fifthly. Your Committee also recommend the registration of a distinct qualification in State Medicine.

The candidates who may pass the examining boards to be formed under this Bill will be styled Licentiates of the General Medical Council, and they will then be at liberty to graduate at any University, or join any of the Colleges, on fulfilling the requirements of the Corporation they may desire to join.

Your Committee feel that so long as there are nineteen distinct Universities and Corporations in this kingdom entitled to grant licenses to practise the medical profession, they need not dilate on the necessity that exists for medical reform: the General Medical Council has admitted it; this Association has, by its votes at every annual meeting succeeding that held in Chester in 1866, unmistakably demanded it; and the late Government actually attempted to carry a measure of medical reform embodying many of the views of the Association.

Your Committee have deemed it wise to forego pressing action during the past session of Parliament, though at one time, previously to the resignation of the late Ministry, they had reason to believe that they had secured the interest of a very influential member of the late Government in their favour. The Committee were aware that the General Medical Council was urging the formation of conjoint schemes of examination, and they desired to leave the field clear for them.

Your Committee have held several meetings. On the 27th June they assembled specially at Chester, when the President of the Council of the Association, and Professor Haughton of Dublin, at great inconvenience, attended. At that meeting it transpired that the efforts in favour of the conjoint schemes would again prove a failure. Your Committee at once went to London, where for three days—being aided by Dr. Sibson, Dr. A. P. Stewart, Mr. Michael, and Mr. Heckstall Smith, the metropolitan members of the Committee—they were engaged in consulting several members of the Commons, and the conclusion arrived at was, that it would not be judicious to introduce the Bill of the Association during the past session, as, owing to the press of business, it would be impossible to succeed in carrying it; and the great influence attaching to the Association might be weakened by a futile attempt.

The past history of medical reform tends to show that the Association may eventually be called upon to settle the vexed question of medical reform; and the Committee, while looking with most favourable, though anxious, consideration on the efforts of the Medical Council to bring to a successful issue the scheme of conjoint examinations, earnestly recommend that the weight of the Association should be brought to bear on the Government to induce them to take up the subject with a view to legislation.

Your Committee have to deplore the untimely loss of the lamented Dr. Charlton of Newcastle, who, with the late Mr. Nunneley of Leeds, were zealous labourers in the work of the Committee. They would recommend that the vacancies thus caused should be filled by the appointment of Dr. Wade and Dr. Balthazar Foster of Birmingham. They would also recommend that Dr. Philipson of Newcastle should be added to the Committee.

EDWARD WATERS,
Chairman and Convener of the Committee.

[By a special vote, carried by acclamation, Dr. Copeman of Norwich, the President of the Association, was also placed on the Committee.]

THE FOOD OF PLANTS AND ANIMALS.

DURING the meeting of the British Association at Belfast, Professor Redfern contributed a paper on the influence of food, and the methods of the supplying of it to plants and animals, full of theoretical and practical wisdom.

Plants, he said, entirely uninfluenced by any but physical conditions, had long since taught farmers, and gardeners especially, that they must not only have abundance of food, but that they must have it in a condition in which they can readily make use of it. In proof of this, he need only refer to the known necessity for the regular use of highly nutritious liquid manure in the cultivation of perfect roses, and to the care the agriculturist had learned to take in the application of the proper kind of artificially prepared manure for each crop, and in its use in a form in which the plant could most easily absorb and apply it. It was many years since, that Mr. Ward gave a beautiful illustration of the influence of food on plants. He found a perfect specimen of the common centaury half an inch high, with one or two pairs of most minute leaves and one flower, on the bare chalk at the border of a wood; on tracing it into the open parts of the wood, it became a glorious plant, four or five feet high, and covered with hundreds of flowers. He (Professor Redfern) wished to show that it was not only important to supply plants with food, but to do this so that they could easily appropriate it, otherwise the supply would be lost and wasted. He had brought with him a series of specimens of common rape, which would speak for themselves. The largest specimen measured five feet six inches high; they branched freely from the ground upwards at intervals of a few inches; their large leaves, thick and fleshy, measured fourteen inches by six inches, and their flowers once covered the plants with their brilliant yellow colour. The middle-sized specimens measured five feet two inches high, but for three feet from the ground they had no branch at all; their leaves were very small, and the plants were little more than a fibrous stem with a few flowers at the top. The smallest specimens were only three feet high, having a few leaves not an inch long by three-sixteenths of an inch broad, and a few flowers at the top entirely useless for any purpose whatever. Other specimens of an essentially similar kind were grown on another spot of ground, under circumstances essentially similar. Of those specimens a large number only measured fifteen inches high; they were furnished with a few almost linear leaflets and a few flowers at the top. Yet the larger specimens grown on this ground were five or six feet high, covered with large spreading branches, furnished with abundance of leaves, yielding a very large amount of good fodder compared with the amount of surface covered by them. With regard to the roots, those of all the poorer plants were straight, small, and but little branched; while those of the well-developed plants were thick, branched, and extended on one side only. For from four to six feet distant from the edge of the plot of rape, on each side the ground, had been trenched two spades deep for planting with trees and shrubs, and a quantity of bog earth with sand and manure had been mixed with it, the manure having been put at the bottom of the trench, and the mixed bog earth and sand half way down. The only well-developed plant grew near the edge of this trenched ground, and their one-sided root spread into it for two feet, exactly in the position occupied by the mixed bog earth and sand. There were only occasional smaller plants at this part, and the roots of every one of these were straight, short, and but little branched. They, in short, had not discovered that there was soft and spongy ground within so short a distance, ground in which their roots might have revelled in growth like those of their neighbour giants, if they had been equally fortunate in finding their way thither. None of the thick long roots on the trenched side of the plants penetrated deeply into the trenched ground. It was the loose and spongy condition of the soil that had attracted them, and not the manure, for not one root had attempted to penetrate to the depth of the manure; all had been content with the position of the mixed bog and earth and sand, thus affording an absolute demonstration of the necessity of attending to the mechanical condition of the soil as well as to its containing a sufficency of the materials which plants needed for food. His plants of rape had abundant nourishment in their immediate vicinity, but they could not avail themselves of it, the soft spogioles of their roots being unable to penetrate the tough clay which a great amount of labour had failed to render porous enough for roots of any kind to enter to any considerable extent.

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* Read at the Annual Meeting of the British Medical Association in Norwich.

Such was exactly the condition in which many persons were who had never applied their intelligence to the selection of their food or to the methods of taking it. There were few social problems more important than how to acquaint the wife of the labourer and artisan, or even the wives and servants of the middle classes, how to spend a fair share of their income upon food to the greatest advantage, and how to prepare it without destroying its nutritive properties. A savoury dish of meat was often prepared by mincing or cutting the meat into small and more or less cubical blocks. It was then stewed or more frequently boiled; the outer surface of each little block had its albumen firmly coagulated, and the whole was converted into about as indigestible a mass as could well be imagined, the high priced and highly nutritious meat having been destroyed for the purposes of nutrition, and the action of the digestive organs probably injured for some time to come. Or good and valuable flesh meat was subjected to the process of salting, which, first of all abstracted the juices of meat, and then hardened the fibres, so as to destroy or greatly deteriorate its digestibility. No doubt it was convenient to have a hardened dry mass of meat incapable of much change for months, and ready to be used for the purpose of filling the stomach and effectually satisfying the appetite, but these were not the purposes for which food was intended to be used. It ought to be capable of supplying the waste of the body, and of being easily converted into heat and motion. If it failed in these particulars, it would also fail in nourishing the brain, and aiding in the evolution of intelligence, and thus intellectual and bodily power was lost to the community, and deterioration of race was promoted. His colleague Dr. Gordon, said that he recollected running races, putting stones, wrestling, and other athletic exercises being the favourite amusements of the sons and servants of the farmers in the county Down. Now, nothing of the sort was heard of. These young men found a short day's work almost too much for them, and at the end of it they were to be seen lying about indulging in idle conversation. Coincidently with this, they imagined themselves the equals of their masters and mistresses, and that the healthful oatmeal porridge and buttermilk twice daily, with beans and bacon for dinner, was too strong and coarse; they insisted on a more delicate fare, and demanded a supply of tea and white bread. They were unconscious that persons in their position but a few years ago possessed amazing vigour, and performed twice the amount of labour with greater ease, and when the day's work was over actually revelled in the display of surplus strength, which nothing but their better and more rational diet could have yielded them.

THE NEW SYDENHAM SOCIETY.

THE sixteenth annual meeting of the New Sydenham Society was held at Norwich on Thursday, August 12th, Dr. Waters of Chester in the chair. The ballot having been taken, the following officers were declared duly elected for the ensuing year. *President:* Cæsar H. Hawkins, Esq., F.R.S. *Vice-Presidents:* A. Baker, Esq. (Birmingham); E. R. Bickersteth, Esq. (Liverpool); J. S. Bristowe, M.D.; E. Copeman, M.D. (Norwich); J. Matthews Duncan, M.D. (Edinburgh); D. Embleton, M.D. (Newcastle); E. L. Fox, M.D. (Bristol); Prescott G. Hewett, Esq., F.R.S.; W. D. Husband, Esq. (York); T. B. Peacock, M.D.; Sir James Paget, Bart., F.R.S.; G. Southam, Esq. (Manchester); A. P. Stewart, M.D.; W. Stokes, M.D., F.R.S. (Dublin); Sir Thomas Watson, Bart., M.D., F.R.S.; C. J. B. Williams, M.D., F.R.S.; Hermann Weber, M.D. *Council:* James Andrew, M.D.; Warburton Begbie, M.D. (Edinburgh); W. H. Broadbent, M.D.; C. Brooke, Esq., F.R.S.; T. Bryant, Esq.; T. Buzzard, M.D.; R. Ceely, Esq. (Aylesbury); W. Cholmeley, M.D.; T. B. Crosby, Esq.; T. M. Daldy, M.D.; J. Langdon H. Down, M.D.; Dyce Duckworth, M.D.; Robert Dunn, Esq.; C. Hilton Fagge, M.D.; J. Fayrer, M.D.; C. J. Hare, M.D.; T. F. Grimsdale, Esq. (Liverpool); John Hamilton, Esq. (Dublin); W. Price Jones, M.D. (Surbiton); J. C. Langmore, M.B.; Joseph Lister, Esq., F.R.S. (Edinburgh); Alfred Meadows, M.D.; G. H. Philipson, M.B. (Newcastle); Henry Power, Esq.; W. O. Priestley, M.D.; W. Roberts, M.D. (Manchester); James Russell, M.D. (Birmingham); L. W. Sedgwick, M.D.; S. W. Sibley, Esq.; Thomas Sympson, Esq. (Lincoln); T. P. Teale, Esq. (Leeds); William Turner, M.B., F.R.S.E. (Edinburgh). *Treasurer:* W. Sedgwick Saunders, M.D. *Auditors:* E. Clapton, M.D.; S. Fenwick, M.D.; F. M. Corner, Esq. *Honorary Secretary:* Jonathan Hutchinson, Esq.

It was moved by Dr. McIntyre of Odiham, and seconded by Mr. Clubbe of Lowestoft, "That the report and balance-sheet, as presented by the Council, being satisfactory to the meeting, be printed for distribution as usual". Mr. Mason of Bath moved a vote of thanks to the officers for the past year; and after some other formal business, the meeting concluded.

The report showed the financial condition of the Society to be highly satisfactory, there being more than a thousand pounds in hand, in addition to a very valuable stock of books. The principal works which the Society has in progress are its *Atlas of Skin-Diseases*, which it is intended to continue for some years longer; its *Retrospect of Medicine and Surgery*, which appears biennially; and a new and revised edition of Mayne's *Lexicon*, which is in course of preparation. The latter was referred to as follows in the report.

"In the last report, the name of Mr. Robert Cooke was mentioned as that of editor-in-chief of the Society's new edition of Mayne's *Lexicon*. The Council has now the pleasure to be able to add that Dr. Greenhill, Dr. Clifford Allbutt, Dr. John W. Moore of Dublin, and Dr. Reay Greene of Belfast, have been associated with Mr. Cooke as coadjutors. The labour on this volume has been found to be very heavy, and it would be premature as yet to fix any definite time for its probable completion. As a necessary measure of limitation, the Council has decided, on the advice of the editors, to restrict the work to words having relation to medical pursuits, and to omit those which are used only in other sciences—botany, geology, astronomy, etc. This will materially alter the scope of the work, but it is believed that it will make it more useful to medical men, since it affords a much better probability of its being fairly complete in its own character."

The balance-sheet showed an annual income of £3566, which would appear to represent subscriptions of about 3000 members, augmented by receipts from the sale of surplus back volumes. A fourth volume of Hebra's work *On Skin-Diseases* will probably appear shortly, and also a second part of the Descriptive Catalogue.

FORTY-SECOND ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in NORWICH, August 11th, 12th, 13th and 14th, 1874.

PROCEEDINGS OF SECTIONS.

SUBJOINED are abstracts of most of the papers presented to the several Sections of the Association at the Annual Meeting. The papers themselves will, as opportunities occur, be published in full in the JOURNAL.

SECTION A.—MEDICINE.

Wednesday, August 12th.

The President, Dr. EADE, delivered an introductory address at 2.30 P.M. It was published at p. 218 of the JOURNAL for August 15th.

Some Observations on the Mechanism of Cough. By A. RANSOME, M.D.—The actual course of the ribs during the acts of coughing, sneezing, etc., had been recorded by means of Dr. Ransome's stethograph, modified by Mr. Gibbon, assistant at Owens College, so as to avoid any error that might arise from the radial movement of the liver. The tracings obtained showed that, in coughing after the preliminary inspiratory forward and upward stroke of the rib, closure of the glottis sometimes took place immediately, at other times only after the expiratory effort had commenced. When this closure occurred, there was usually for the moment arrest of the upward and downward motion of the end of the rib; but it moved in the horizontal plane either forwards or backwards—the former case being most usual; this was then followed by a downward sweep of the rib, during which it was often bulged forwards, and then there was an almost horizontal indrawing of its anterior end. The variations in these motions was accounted for by the varying extent to which the rib was active or passive in the process, and to the power of inbending in forced expiration which it possessed.—Dr. SIBSON spoke in terms of admiration of the instrument used by Dr. Ransome in his investigations, and also of the importance of the researches.

The Systemic Indications of Chronic Bright's Disease. By J. MILNER FOTHERGILL, M.D.—He pointed out the numerous different forms which might be assumed by chronic renal disease, and which are commonly termed "suppressed gout". The changes in the circulation he regarded as much a part of chronic Bright's disease as sore throat is a part of scarlatina. The different excreting organs were commonly affected; and skin-diseases, chronic bronchitis, and diarrhœa, were as much consequence and sequels of primary renal changes as were gout proper, muscular rheumatism, or neuralgia. Certain outcomes, including mental irritability, were so commonly found and grouped together, that a presumptive diagnosis of renal disease was often practicable when it was not possible to examine the urine. Dr. Fothergill was careful to limit exactly what he meant by a "presumptive diagnosis", which was only an imperfect diagnosis. This diagnosis consisted of a synthesis, resting upon several factors—physical signs and vital symptoms. The physical signs were accentuation of the aortic second sound, and a well-sustained pulse; the vital symptoms were great variations in the bulk of urine, getting up at night to make water, and an excessive mental irritability. When these were found aggregated, and especially if accompanied by any of the known outcomes of renal disease, or suppressed gout, a diagnosis, sufficiently accurate to indicate a line of treatment, was at once furnished. Dr. Fothergill pointed out how habits of life, occupations, and diatheses influenced the form assumed, and so explained why a peculiar group of symptoms was manifested in one person, and another series in another, though in both the starting-point was renal inadequacy.—Dr. RINGER asked Dr. Fothergill whether he would rest his diagnosis of Bright's disease upon the symptoms described, without any examination of the urine, as he (Dr. Ringer) was of opinion we should not be justified in allowing a patient to leave the consulting-room with the symptoms described without making a full and complete examination of the urine. The varying quantity of urine in Bright's disease Dr. Ringer would attribute to changes in the kidney itself, rather than to alterations in the heart. He considered the quantity of urine passed of value in prognosis, a large secretion being a favourable indication.—Dr. FOTHERGILL said, in reply, that in some cases of Bright's disease there was no albumen in the urine. He also stated that the bulk of urine depended more on the state of the circulation than on the condition of the kidneys, a large flow of urine never occurring in those cases in which the heart was dilated and weak.

On the Anatomical Lesions of General Paralysis. By Drs. MAGNAN and MIERZEJEWSKY.—The joint communication of Dr. Magnan, Physician to the Asile Sainte Anne at Paris, and Dr. Mierzejewsky, Physician to the Clinical Lunatic Asylum at St. Petersburg, had for its object to exhibit some microscopic specimens tending to demonstrate that the constant characteristic lesion of general paralysis (of the insane) is a diffuse interstitial encephalitis. Other lesions, such as colloid degeneration, spots of softening, hæmorrhages, etc., may be met with in the subjects of general paralysis; but these are not constant, and ought to be regarded as accessory lesions, bearing only a more or less distant relation to the diffuse interstitial encephalitis.* The specimens were:—1. A series of specimens having reference to the cortical layer; thickening of the walls of the vessels; multiplication of the nuclear and cellular elements of the interstitial tissue; stellate or *spider-like* cells, which may reach the size of .04 to .088 of a *millimètre* (1-630th to 1-300th of an inch); cloudy infiltration and granular fatty and pigmentary degeneration of the ganglionic cells; and, exceptionally, hypertrophy of some of these cells: 2. A series of specimens relating to the white substance; thickening of the walls of the vessels; multiplication of the nuclear and cellular elements of the interstitial tissue; hypertrophy of some of the axis-cylinders of the nerve-tubules, which may reach the size of .04 *millimètre* (1-630th of an inch): 3. A series of specimens relating to the ependyma and the subjacent parts; thickening, at times enormous, of the walls of the vessels; thickening and hypertrophy of the connective tissue layer of the ependyma, with the production of papilliform fibromas at the surface, and development of fibrous tracts in the deeper parts: 4. A series of sections relative to accessory lesions; thrombosis of vessels; hæmorrhages; colloid degeneration. [The paper, which was read by Dr. Shrimpton, was illustrated by microscopical specimens.]

On the Action of Mercury. By JAMES ROSS, M.D., Waterfoot, near Manchester.—A study of the physical properties of mercury will prepare us to expect that it will have a profound effect upon the body. The following may be laid down as general laws, other things being equal. 1. The generality of the effect produced by an agent increases directly as its molecular mobility. Mercury possesses a high degree of molecular mobility, since it is fluid, and volatilises to a sensible extent at ordinary temperatures; hence it may be expected to produce a very general effect upon the body. 2. The more massive the molecule of an element, the more defined the action its compounds produce on the parts of the body upon which they act. The molecule of mercury is massive; hence its action may be expected to be not only general, but specific. 3. The salts of those agents which form stable compounds with albuminous substances are retained for a comparatively long period within the body. The salts of mercury form very stable compounds with albumen, and it is known to be retained for a long period. After absorption, mercury has a preferential action upon the white tissues of the body, more especially upon the adenoid tissue, which it stimulates to increased activity. Its action upon the adenoid tissue will enable us to explain the mercurial cachexia and fever without supposing that it is a direct blood-poison; and its action upon the connective tissue will enable us to explain the mercurial tremor and paralysis without supposing that it has a direct action upon the nervous tissue itself. Mercury should only be administered in disease in cases of lesion of a tissue for which it has an affinity, or upon which it exercises a preferential and direct action. When the disease occurs in a tissue for which mercury has an affinity, it may do harm by stimulating in excess in the first stage of inflammation. If the part be on the eve of breaking down into pus, mercury may so stimulate as to accelerate the process; and this is generally undesirable. It does most good in chronic indurations and effusions; it stimulates such cases to increased activity, and thus promotes health. Syphilis is a disease which falls mainly upon the white tissues of the body; these being generally the same tissues upon which mercury has a direct action. This drug, therefore, will be useful in the induration of the primary sore; and, when the primary sore is cured, it ceases to be a source of infection, and the secondary symptoms may be prevented. But the secondary symptoms are not always prevented; and, if mercury be acting freely upon the body at the time that the affections of the skin and fauces are about to make their appearance, it and the syphilitic poison will act upon the same tissues at the same time, and graver lesions will be produced than each would cause acting separately. Therefore a clear interval of a fortnight should intervene between the administration of the drug for the primary sore and the time at which the secondary symptoms should appear. After the feverish symptoms of the secondary stage have subsided, the drug may be administered cautiously again. It does no good during the tertiary symptoms, just because the disease is then acting upon tissues for which mercury has no affinity.

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* Magnan: *De la Lésion Anatomique de la Paralysie Générale.* Thèse de Paris, 1866. Magnan et Mierzejewsky: Des Lesions des Parois Vasculaires et des Parties sous-jacentes dans la Paralysie Générale (*Archiv. de Phys. Normale et Patho.*, 1872). Magnan: De la Dégénérescence Colloïde du Cerveau dans la Paralysie Générale (*Archiv. de Physiol. Normale et Patho.*, Mars 1869).

The Pathology of Lesions of Speech in the General Paralysis of the Insane.—By AUGUSTE VOISIN, M.D. (Paris). —In this paper, which was illustrated by numerous drawings of brain-structure, Dr. Voisin divided the troubles of speech observed in general paralysis of the insane into stuttering, drawling, hesitation, jabbering, stammering, and quavering. These conditions, he said, were often confounded; and their intimate causes did not seem to be sufficiently known. Stuttering, hesitation, and drawling, originate in the brain; they indicate disturbance of the intellect and will, and of the memory of words. Jabbering, stammering, and quavering, have their origin in disorder of the medulla oblongata, and correspond with disturbances of automatic and involuntary co-ordination. Dumbness, in the general paralysis of the insane, is the result of paralysis of the tongue and pharynx. The pathological lesions connected with these several conditions were described.

On the Action of Croton-Chloral Hydrate in Certain Forms of Megrim. By SYDNEY RINGER, M.D.—Dr. Ringer included under the term megrim the affections commonly known as sick headache, bilious headache, nervous sick headache, and hemicrania. He described the phenomena of an attack: and, with regard to its pathology, said that, though the affection was seated in the nervous centres, the frequency and severity of the attacks depended on peripheral exciting causes. The treatment included that of the central nervous affection; the removal or prevention of exciting causes; and the treatment of the paroxysm. Having referred to bromide of potassium as being often useful in a twofold sense, Dr. Ringer said that, remembering how closely megrim is allied to neuralgia, and how useful hydrate of chloral is in facial neuralgia, he had been induced to try this remedy in megrim, and had found it useful in cases of the continuous form.—Mr. HALL WRIGHT asked Dr. Ringer what doses of croton-chloral he found most useful.—Mr. ASHBURTON THOMPSON wished to know if he had tried phosphorus in megrim.—Dr. BRADBURY said he had had no experience of croton-chloral in the paroxysms of megrim, but had found guarana very useful in some cases, though not in all. He found this disease common amongst hard-reading men at the University; and the best prophylactic which he knew against the attacks was a mixture containing the ammonio-citrate of iron, bromide of potassium, tincture of nux vomica, and a little glycerine. Unfortunately, he said, in a few cases, after a long interval of freedom from the attacks, the next paroxysm was of unusual severity.—Dr. DURRANT had met with success from the use of croton-chloral in megrim. He advised, however, in some cases, the previous administration of a gentle purgative, such as rhubarb, twice a week.—The PRESIDENT thought the best way of treating a sick headache was to go to bed in a dark room and take nothing. His experience of drugs in this disease was not encouraging. It was a mistake to regard the paroxysms as "bilious attacks". He thought many cases of megrim had a strong affinity to epilepsy, the disease having a tendency to occur in epileptic families.—Dr. RINGER, in reply, said croton-chloral may be given in doses of five, ten, or fifteen grains. He had given ten grains every hour for a fortnight without any unfavourable symptoms. He recommended five grains every three hours in ordinary cases of megrim, and the same quantity every two hours in severe attacks. With regard to the use of *combination* of drugs in megrim, alluded to by Dr. Bradbury, he said he had found cannabis Indica, in conjunction with other drugs, the most useful form. Dr. Ringer had not found phosphorus successful.

Leamington Spa, its Mineral Springs, Climate, and Sanitary State.—By JAMES THOMPSON, M.B.—The author gave a brief description of the town of Leamington, and pointed out its advantages as a health-resort for invalids during the winter months, adducing details of several cases of chronic invalids and delicate children to whom a winter residence in the town had been most beneficial. The increased value of the mineral waters, as a means of treatment in chronic diseases of stomach and liver, was attributed to the increase in the quantity of mineral salts contained in the spa water of the pump-room, which now has twenty-five grains per pint of saline residual salt more than when the last analysis was made. An analysis of the meteorological reports for the past ten years was given, showing an average temperature of 48.8 deg., and an average rainfall of 23.79 inches, thus illustrating a moderate temperature and a dry state of the atmosphere, while the daily range was only 14.7 deg. These conditions seem suitable for invalids suffering from many of "the ills that flesh is heir to". The Registrar-General's returns were alluded to, as giving Leamington an average death-rate of 11.9 per 1,000; and his recently published report on the health-returns of English watering-places, in which he placed Leamington among the towns of the highest rank. The report of the medical officer of health to the sanitary authority for the previous week showed two deaths from natural causes in a population of 25,000. From these and other statistics the author proved the high sanitary condition of the town, and deduced its value as a health-resort.

Thursday, August 13th.

Cases of Convulsion from Organic Brain-Disease. By W. R. GOWERS, M.D.—In these cases, the commencement of the fit was deliberate and local, and the cerebral lesion was obvious and circumscribed. The first case was that of a child with old renal disease, who died after a series of unilateral (left side) convulsions. Each fit began equally in the two frontal muscles; then passed to the orbiculares palpebrarum, but affected the left more than the right; and then involved the angle of the mouth, the arm, and the leg, on the left side only. A series of fits, probably similar, had occurred two months before. After death, an old hæmorrhage was found in the white substance of the right hemisphere, just above the lateral ventricle, involving, by its adjacent softening, a small portion of the gyrus fornicatus. The author pointed out that Dr. Broadbent's hypothesis, which explains the escape of the bilaterally acting muscles of both sides in hemiplegia, equally explains their involvement in a convulsion due to a lesion in one cerebral hemisphere. The second case was that of a man suffering from phthisis, who died after a series of convulsions beginning unilaterally by a special movement of the left hand and arm, and spreading thence to the side of the face and leg of the same side, and subsequently to the corresponding parts of the opposite side. After death, there was found an area of extreme congestion of the convolutions of the right frontal lobe, extending across the anterior half of that lobe from the longitudinal fissure to the short anterior limb of the fissure of Sylvius. The congestion was due to the extension of a thrombus from the superior longitudinal sinus into the vein from this part of the frontal lobe. The case derived its chief interest from a comparison with the results of experiments on animals. The affected area was anterior to Dr. Ferrier's centre for the movements of the hand in monkeys. The third case was that of a girl who had suffered for six years from convulsions with loss of consciousness, all the fits being preceded by an aura in the left wrist. By blistering above the left wrist, the aura had been for a time transferred to the opposite side. After death, a small tumour was found in the white substance of the left hemisphere. It contained two calcareous masses, and was evidently of considerable duration. If the cause of the convulsive attacks, and none other, were discoverable, it could only have produced an aura, and probably, therefore, commencing convulsion in the arm of the same side, by acting on the opposite hemisphere of the brain by means of the commissural fibres of the corpus callosum in which it was placed.

The Localisation of Function in the Brain. By D. FERRIER, M.D.—Dr. Ferrier read a paper, explaining his views on the localisation of function in different parts of the brain. — Dr. BATEMAN (Norwich) said there could be only one opinion as to the extreme value and importance of the communication with which it was their privilege to have been favoured by Dr. Ferrier. As he had reason to believe that his (Dr. Bateman's) views upon this subject were generally known, he would rather not have begun the discussion. He wished to take this opportunity of saying that he by no means desired dogmatically to urge his views upon the profession, nor did he wish it to be understood that he had any pretension that his feeble researches upon this subject had in any way settled the question in dispute. He had collected a variety of observations from English, American, German, and French authors, together with cases observed personally by himself, and he found so many exceptions to the principle of localisation of the faculty of speech in any definite portion of the brain, that he claimed at least the Scotch verdict, "Not proven". The cases to which he alluded could be divided into two classes: 1. Those in which not only the third frontal convolution was destroyed, but the contiguous parts, and, in some instances, almost the totality of the anterior lobe, and yet speech was not impaired; 2. Those cases in which the converse condition existed—viz., aphasia, with perfect integrity not only of this third frontal convolution, but of the entire brain. He was perfectly well aware that the supporters of Broca's theory might say that in these cases there may have been some slight disease, not appreciable by our present means of investigation. Now, this was an objection which might be raised against all negative conclusions. He admitted that loss or lesion of speech might depend upon an altered condition of cerebral tissue not patent to the sense of vision—to the eye—for the microscope was only the aided eye. He admitted that there might be some altered electrical condition of the cerebral tissue, some thermal or chemical change, not appreciable by our means of investigation. There was one class of cases which seemed to him to be inconsistent with the idea of organic change of structure—*i.e.*, cases of temporary aphasia. He might cite a case which he had published in his work *On Aphasia*, in illustration of this point. He was requested by his friend Mr. Allen to see with him a man aged

37, who, whilst taking a meal, was suddenly deprived of the power of speech. He continued speechless for six days, without any paralytic symptom being present, when, being asleep on his couch, he suddenly started up, and was heard to say three times, "A man in the river". From this moment speech was restored; and when he (Dr. Bateman) saw him an hour afterwards, he told him he had dreamed that a man was falling into the river. The mental shock produced by this dream was salutary, for it resuscitated the previously dormant faculty of articulate language. He would like to elicit further information as to the effect of cutting off the direct supply of blood from the left side of the brain by ligature of the common carotid artery. He had collected several cases in illustration of this point, and in the majority of them speech was unaffected. He (Dr. Bateman) considered further investigations were needed; and he deprecated rash and hasty conclusions from imperfect data. The whole question was involved in so much obscurity that it was only by discarding all preconceived opinions, and by carefully studying the various phases of the cases which one had the opportunity of closely watching, that one could hope to throw further light on one of the most complex questions of cerebral pathology—the localisation of the faculty of speech.—Dr. MILNER FOTHERGILL considered Dr. Ferrier's contribution to be one of the most important of modern times, and brought forward objections to the views of Dr. Bateman. He (Dr. Fothergill) had been pursuing for some time an inquiry with regard to the supply of blood to the brain, upon which its functional activity depends. He thought cerebral anæmia might account for some of the phenomena described by Dr. Ferrier.—Dr. BATTY TUKE thought with Dr. Bateman that sufficient importance had not been given to cases of aphasia in which no lesion had been found to exist. In one case which came under his observation, where there was complete obliteration of the region of Broca, no aphasia whatever was observed.—Dr. DOWSE remarked that there were several points of special interest in the paper. Dr. Ferrier had proved conclusively that there were certain centres of movement, but he was not clear that the movements produced by experiment had origin from those centres: there was no movement produced by touching the island of Reil, but this could be explained anatomically. Dr. Dowse thought that the author's observations were in the main correct, but that they still required further elucidation, and remarked that we cannot deal with the subject better than by clinical observation. In more than a hundred instances, he had proved absolutely the truth of Broca's view with regard to the third convolution. He concluded by stating that it is not fair to assume, because we find no *post mortem* appearances, that no disease exists, especially as a host of observations show the truth of Broca's theory of localisation.—Dr. EADE had seen cases in which aphasia was a marked symptom, and in most of these there was disease in the left frontal convolution.—Dr. FERRIER replied that, with regard to Dr. Bateman's remark that he (Dr. Ferrier) had given too much importance to movement and too little to mind, before there can be an idea there must be a point where an impression can be stored up. If no impression be left, there is no memory. Psychical impressions are bound up with sensation and motion. The centres of memory are probably the same as those of movements. He had no explanation to offer to Dr. Tuke, as he thought his case did not militate against localisation of function in the brain, but only against Broca's theory.

Accidents that may happen to Pregnant Women suffering from Disease of the Heart. By MICHEL PETER, M.D., Paris.—Women suffering from an organic disease of the heart, who become pregnant, are exposed to accidents that may strike the lungs, impede gestation, and aggravate the state of the heart. The pulmonary accidents are production of an extremely rapid double congestion of the lungs, with spitting of blood, and asphyxia, or capillary bronchitis, or lobular pneumonia, or double pleurisy. The accidents of gestation are miscarriage, with the death of the fœtus. The cardiac accidents are the acceleration or aggravation of the general disorders attending organic diseases of the heart, namely, dyspnœa, painful palpitation, visceral congestion, anasarca. Pulmonary accidents and miscarriage happen ordinarily towards the middle of the gestation, and especially in the course, or towards the end, of the fifth month. These results were derived from eight cases, four observed by the author, and eight by Professor Sée, at La Charité, in Paris; M. Budin, house-physician at the Hospital St. Antoine, in Paris; and M. Seuvre, house-physician at La Maternité, of Paris; each of those physicians having observed their cases after their attention had been called upon these facts by the author. All these women but one were not at their first gestation; they had their attacks, one at her second pregnancy, three at the third, one at the sixth, one at the fifteenth; and one of them, after having miscarried at her third gestation, miscarried again at her fourth and fifth; another, who miscarried at her sixth gestation, had again two successive miscarriages; at length the one who miscarried at her fifteenth gestation had also two successive miscarriages. The meaning of these facts is, that their heart was a fatigued one, both by the increase of work caused by pregnancy, and the more remote date of the disease of the heart. The production of the pulmonary accidents is due to the augmentation in the total mass of the blood, which increases necessarily as increase the wants of the fœtus. Thence the occurrence of these accidents, not at the beginning of the pregnancy, but after some months. The augmentation in the total mass of the blood, caused by pregnancy, produces physiologically plethora in the lungs, and, in some women, dyspnœa, and even spitting of blood. The disease of the heart involves morbid congestion of the lungs, hence a pregnant woman with disease of the heart is doubly exposed to pulmonary accidents. The gestation produces an hypertrophy of the left ventricle, so that morbid regurgitation of blood in the lungs is increased by the state of heart. In seven cases, the organic disease of the heart was an insufficiency of the mitral valve (complicated, in two cases, by a stricture of the orifice). In one case only the disease was a stricture of the aortic orifice. Two of the women died in consequence of their pulmonary accidents and miscarriages, and the six who recovered were afterwards rendered miserable by the severe and permanent aggravation in the disorders of the disease of their heart. The recovery was due to medication both energetic and rapid. The practical consequences of these facts are the following. 1. A woman diseased at the heart should not be a mother. 2. If she become pregnant, the physician must attentively survey her respiratory functions, and intervene energetically as soon as pulmonary disorders begin. 3. If the woman be safely delivered, she must not nurse her child, in order not to fatigue more her diseased heart. 4. Reciprocally, when a pregnant woman suffers towards the middle of her pregnancy very severe pulmonary disorders, or when she miscarries by them, the physician must consult her heart, and perhaps he will thus discover a disease of the heart till then unknown or mistaken.—Sir JOHN R. CORMACK remarked that renal congestion is a common cause of albuminuria, and of the various associated dangers of toxæmia. This toxæmia takes place from the pressure of the gravid uterus, when there is neither disease of heart or kidney, particularly in primiparæ, in plural pregnancies, and in women of extreme muscular development, whose rigid fibres do not readily yield to the augmenting womb. Of course, with disease of the mitral valve, or structural disease of the kidney, the toxæmic dangers incident to the pressure of the gravid uterus are much augmented. He thought that Dr. Peter's paper was of great practical importance, as was the whole subject of the dangers of pregnancy originating in the diseases or structural peculiarities of the individual.—The PRESIDENT thought the albuminuria of pregnancy was often of a reflex nature.—Dr. PETER, in his reply, said that, in the cases he had observed, there were no symptoms of toxæmia.

On the Uniformisation of the Instruments, Scales, and Tables, of Clinical Observations. By EDWARD SEGUIN, M.D., Delegate from the American Medical Association. The Section thought the subject ought to be referred to the meeting of the General Association.

A Disease of Carpenters. By PETER EADE, M.D.—It is well known that undue or too prolonged exertion of any part of the body is apt to be followed by an exhausted or more or less paralytic condition of the overworked part; and, further, that this effect may be produced not alone in the fatigued muscles, but also at the spinal origin of the nerves supplying those muscles, and by reflected action at more distant parts. Carpenters, in certain portions of their work, use their upper extremities very continuously and monotonously; and the special case now detailed—that of a carpenter—illustrated the morbid effects produced in them by such overwork. Other forms of employment in which the arms are strained by overexertion, such as that of "navvies" and labourers, who dig much, induce the same results. Sawyers are liable to a peculiar form of exhaustion of their shoulders and arms, but it differs from the affection now described; so also does the well known cramp and arm-weakness of writers, smiths, etc. The special symptoms of "carpenters' disease" are, shortness of breath; vague pains in the chest; pains ascending thence to the neck, face, or head; a constant secretion of salivary or bronchial mucus; and a peculiar nervousness or fidgetiness of manner. A subclavian murmur may be present (and Dr. Richardson has shown this very frequently to exist in carpenters). In some important respects, the symptoms are similar to those seen in chronic cases of concussion of the spine from a railway accident. The nerves involved are doubtless at first those of the brachial plexus, and then those of its related cervical ganglia and (by reflexion) other portions of the sympathetic and cerebro-spinal system. Various kinds of treatment have been tried, but nothing except prolonged rest has been found to be of any benefit.

On the Physiological Action of the Chinoline and Pyridine Series of Bases. By J. G. MCKENDRICK, M.D., and JAMES DEWAR, Esq.

On the Etiology of Endemic Goître, with Special Reference to its Geo-

logical Bearings in Great Britain. By Morell Mackenzie, M.D.—The author of the paper commenced by quoting Sir Thomas Watson's dictum, that the etiological problem of goître could only be solved by the medical geologist; and, after passing in review the many causes to which goître had been referred, he proceeded to map out the geological distribution of goître in the different parts of Great Britain. Pointing to Derbyshire as the centre of the disease, he traced it through Yorkshire, Cumberland, Westmorland, Northumberland, and the south-eastern counties of Scotland, where the endemicity attained its maximum in Scotland in the valley of the Nith. In Derbyshire, the disease was almost entirely confined to the mountain limestone. In Yorkshire, it was found on a similar formation at Hawes, and, to a slight extent, on the magnesian limestone near Knaresborough and Ripon, and it was highly endemic on the oolite at Helmsley. In Cumberland, it was found on the Goredale Rocks at Alston Moor; and on the Lower Silurian formation in Westmorland. In Northumberland, it was again found on the mountain limestone; and also on a similar formation on a small portion of the south-eastern part of Berwick. In the south-western counties of Scotland, it occurred on the Lower Silurian. In the midland counties, with the exception of Derbyshire, the disease was generally absent. It was slightly endemic in Norfolk, Suffolk, and in a south-westerly direction through Hertfordshire, Berkshire, Hampshire, and Dorsetshire; in fact, throughout the greater part of the chalk formation. It showed, however, a greater endemicity through the weald clay and Hastings sand of Sussex. After referring to a few other places in which goître was more or less endemic, the author proceeded to show that neither the limestone nor magnesian theory could explain the etiology of the disease, and that the presence of metalliferous earths was the only coincidence which was universal. This coincidence had been first pointed out in a work of great ability by Dr. St. Lager, and had subsequently been maintained by Mr. Lebour, of Her Majesty's Geological Survey. Dr. St. Lager had even gone so far as to single out sulphate of iron as the essential cause of the disease, but it was more probable that the poison was some substance commonly associated with iron and other metals. Roughly speaking, goître might be said to be most prevalent on certain parts of Derbyshire, on Alston Moor, at Helmsley, and at Wantock Head on the Nith. In each of these places, the population was engaged in mining operations, which circumstance clearly pointed out the presence of metalliferous earths. On the other hand, it must be admitted that, although iron is prevalent in the soil of these places, it does not appear to exist to any appreciable extent in the potable waters, and Dr. Moffat had shown that it was absent in certain wells in Cheshire where goître was endemic. It was quite possible that goître might be due to some metal or salt with which we are already acquainted, or it might be that chemistry or spectrum-analysis would bring to light some new substance which was the poison so long sought in vain.—Dr. Lowe remarked that West Norfolk, where goître was endemic to a considerable extent, ought to afford a good test of the soundness of Dr. Mackenzie's views. In the centre of the district the chalk formation prevailed to a depth of some hundreds of feet, while on the outskirts of the district the lower green sand cropped out, and the water was consequently strongly ferruginous. Goître, according to his experience, was more frequent on the chalk than where iron prevailed. Dr. Lowe asked whether the author of the paper had extended his inquiries to Norway, where a large extent of country abounds in metal and metallic earths, and ought to afford good indications in support or contradiction of the theory.—Dr. Durrant agreed with Dr. Lowe, and stated that in his district iron could not be assigned as a cause of goître, but thought it was due rather to anæmia. He had found iron one of the most useful remedies in treating the disease.—Dr. Thompson remarked that at Midhurst in Sussex, where both chalk and iron abound, bronchocele is very common.—Dr. Balthazar Foster, while accepting the theory of metallic impurities as a cause of goître, considered that we ought to keep in view the states of periodical enlargement of the bronchial gland. The physiological relation of the gland ought to be considered.

Notes of Six Cases of Hydatids of the Liver treated by Puncture. By J. B. Bradbury, M.D., Cambridge.—Detailed accounts were given of six cases of hydatid tumours of the liver treated in Addenbrooke's Hospital by puncture during the last two years. Of the six cases, four were females, and two males. The aspirator was found of value in assisting in the diagnosis of some of the cases. Pain in the hepatic region was present in all the cases; and Dr. Bradbury thought hydatid tumours of the liver were more frequently painful than painless. In one case, there was albuminuria from pressure of the tumour on the renal veins. Thoracic complications occurred in three of the cases, and in the only one which terminated fatally, the hydatid cyst communicated through the diaphragm with the bronchi of the right lung. Dr. Bradbury considered medicine useless in the treatment of these tumours. Puncture with a fine trocar, or with the needle of the aspirator, was the best mode of treatment. The cases showed that the smaller the tumour, and the earlier the operation was performed, the more favourable were the results. When suppuration had taken place, a free and permanent opening was made by trocar and cannula. A feather-barb was shown, which was found to be of great use in clearing the hydatid vesicles out of the cyst. In two of the six cases, the first puncture was followed by an eruption of urticaria. Temperature-charts were shown which enabled the observer to predict with tolerable certainty whether suppuration had followed the puncture or not. Of the six cases, two were cured with a single puncture; in one (cured), suppuration had taken place before the puncture; and in the other three (of which two were cured), suppuration followed the punctures, although not the first one.—Mr. Hemming narrated a case in which two separate attacks occurred; the second after an interval of two years. In this case, the patient expectorated pure bile, and subsequently hydatid vesicles, after an attack of what seemed to be pleurisy. In both attacks the symptoms disappeared after the internal administration of sulphurous acid.—Dr. Jagielski regretted that there had been no spirometrical measurements.—Mr. Ashburton Thompson asked Dr. Bradbury to what he attributed the collapse after the iodine injection in Case I. He had known similar collapse follow injection of perchloride of iron into the uterus.—Dr. Lowe remarked that they were much indebted for a very valuable paper, of great practical interest, and wished that there had been time for more full discussion. He thought that in those cases where the signs of suppuration in the cyst existed—and they were generally easy to diagnose—it would be advisable to use a large trocar in the first instance, as it was more difficult to do so after the cyst had been partially emptied. In one instance he had done this, using a full-sized trocar, and thus experienced no trouble in withdrawing the hydatids by means of the aspirator; and the patient made a rapid recovery. It would be interesting to know in how many cases a real cure was effected by tapping; and he narrated a case in which an enormous cyst was found fifteen years after it had been first tapped. He had in more than one instance met with the yellow expectoration mentioned by Mr. Hemming, and considered it quite diagnostic of hydatid of the liver; but in the cases he had seen it did not consist of pure bile, but of gelatinous matter, tinged with bile.—Dr. Bradbury, in reply, said the case narrated by Mr. Hemming was one of very great interest. He (Dr. Bradbury) had had no experience of the value of sulphurous acid in similar cases, and thought it highly probable that the disappearance of the symptoms after the administration of the drug was only a coincidence. Dr. Bradbury promised to make spirometrical observations should any more cases of hydatids come under his care. He could not exactly say to what the collapse in Case I, after injecting the iodine, was due. He thought probably to shock, and not to peritonitis or iodine poisoning. An incision through the abdominal wall, recommended by Dr. Lowe, previous to the puncture of the cyst, he considered unnecessary. He thought the rack-aspirator of Dieulafoy a convenient instrument for injecting fluids into the cyst, and subsequently withdrawing them. He believed the cure in most cases was permanent.

Friday, August 14th.

Diphtheritic Paralysis. By Sir John Rose Cormack, M.D.—The author began by describing a minutely observed very severe but typical case of diphtheritic paralysis. The main object of the paper was to elucidate the natural history of the affection, which he looked upon as the true guide to the prognosis and treatment of each case—so far as a guide exists irrespective of the individual peculiarities of the patient, and the character of the disease in respect of the district, season, and race in which it occurs, and the constitution of the prevailing epidemic, should the disease be prevailing as an epidemic. The most skilful physician cannot cure pneumonia, typhoid fever, or diphtheria; but he can guide to recovery many cases of these diseases which would be lost by the routine administrator of remedies. Medicines are sometimes exceedingly useful in diphtheritic paralysis, as well as in the earlier stages of diphtheria; but in each case, and in each epidemic, we find that the efficacy of particular remedies varies with the variation in the therapeutic opportunities. The author regarded a generous easily assimilated diet in all stages and forms of diphtheria as generally the basis of the treatment; ferruginous medicines were nearly always useful, but, like all other medicinal agents, they had their times for being given and for being withheld. In diphtheritic paralysis, the persistent use of local stimulants and small blistering bands (according to a method described) constituted, perhaps, the most valuable treatment. Electricity had its opportunities, and was sometimes most useful. Change of air, the douche, and short courses of nux vomica were agencies which frequently gave a start to a lagging recovery. Still, we must never lose sight of the fact that the paralysis has a definite career to run; and that if the patient were only to eat and drink well and digest his aliment, he will, at the end of a longer or shorter time, be restored to health—provided always, of course, that no insuperable obstacle to recovery exist, such as implication of the muscles of respiration in the paralysis. In discussing the pathology of the affection, the author referred to recent German and Italian physicians who had described necropsies in cases of diphtheritic paralysis, in which they found a structural change in the grey and white matter of the medulla, which some of them have termed *disseminated myelitis*. The author looked on these appearances in the cases referred to as secondary. Diphtheritic paralysis, though it has its own peculiarities and specialities, is similar in kind to the paralysis which we meet with as a sequel of typhoid fever, relapsing fever, scarlatina, and dysentery. In all, it is peripheric. Its invariable starting point is the velum pendulum palati; and that is a distinctive peculiarity between it and the paralysis following typhoid fever, relapsing fever, scarlatina, and dysentery.

On Diphtheria. By T. PRANGLEY, Esq.—Mr. Prangley's paper was founded on the observation of fifty-six cases of diphtheria which came under his care at Aylsham during an epidemic which prevailed in the summer and autumn of 1868. The cases had been of all degrees of severity. He regarded the amount of engorgements of and deposit on the tonsils as a valuable prognostic sign; and said that one of the worst signs was the extension of the disease to the nares. The propagation of diphtheritic membrane to the larynx was also an ominous symptom. Regarding the treatment, he said that in every case he applied tincture of iodine (48 grains to ℥i) locally to every part of the throat covered with membrane at least once in every twenty-four hours, and also ordered the inhalation of iodine-vapour with steam. The general treatment was supporting and stimulating. Of his fifty-six cases, seven died, five of whom were moribund when he first saw them.—Dr. RUSSELL REYNOLDS remarked that the paralysis after diphtheria bore no relation to the severity of the case. Mild cases were often followed by paralysis, even very slight cases where the throat had not even been looked at. He alluded to the curious way in which the paralysis spread, from one side of the throat to the other. Sometimes, he observed, paralysis of sensation passed away, leaving paralysis of motion, and *vice versâ*. Muscular irritability, as tested by electricity, was often reduced, and sometimes extinguished. In some cases, Dr. Reynolds ceased to give food by the mouth, and fed his patients by enemata.—Dr. RINGER asked Sir John Cormack how he explained the general paralysis on the peripheric theory? He said there were two theories—one central, which would account for the general paralysis; the other peripheral, which would explain the local palsy. Dr. Ringer thought strychnine a remedy of greater value in diphtheritic paralysis than the authors of the papers had allowed. In his opinion, there are two forms of diphtheria—the one febrile, the other non-febrile. He had seen cases where there was much exudation in the throat and no febrile symptoms. He considered the laryngeal forms the most dangerous.—Dr. PÉTER (Paris) agreed with Sir John Cormack, that there was always a spontaneous tendency to recovery in diphtheritic paralysis, and that the affection was peripheric and reflex in its origin. It always began in the velum palati.—Dr. BALTHAZAR FOSTER agreed with Dr. Ringer, that there are two forms of diphtheria. The non-febrile form should not be called diphtheria at all, as diphtheria is a constitutional disease. He said that pressing the nostril with the finger was a convenient mode of ascertaining whether the nose was affected in children or not. In reply to Dr. Ringer, Dr. Foster said he had never observed paralysis to follow the non-febrile forms.—Dr. BRADBURY asked Mr. Prangley if he had found the pulse of any value as regards prognosis, as it was stated that a very quick or a very infrequent pulse was an unfavourable augury; also if Mr. Prangley had treated any cases without local applications, and with what results. He could not endorse one remark in Mr. Prangley's paper, viz., the maxim of John Hunter, that two poisons cannot exist in the same body at the same time, as he (Dr. Bradbury) had seen a patient simultaneously suffering from both enteric and scarlet fevers.—Dr. EADE said he was the first person in England who pointed out (in 1859) that paralysis followed diphtheria. These cases had been previously described as paraplegia. When the paralysis affects the œsophagus, even enemata will not in all cases save the patient. It is necessary to use the bougie. He agreed with Mr. Prangley that iodine was a most useful application, either applied locally or by inhalation; but in some cases a solution of chlorinated soda was better. In the treatment of the paralysis, he recommended zinc and change of air.—Dr. ROSS had found the state of the glands useful in prognosis; no implication of the glands being a good sign, whereas rapid implication of the glands is of bad omen. He recommended in the paralysis the application of a blister to the throat after a certain time, as he thought blisters increase the nutrition of the surrounding structures. In his opinion, the purgative treatment in Sir John Cormack's case was too severe.—Sir JOHN CORMACK, in reply, said that it was not safe to found our treatment of diphtheria only upon what we ourselves may have seen and done. A practitioner may have seen in some particular locality, or in some particular epidemics, nothing but recoveries; and, if he have applied iodine locally, and given zinc or iron internally, he may be inclined to attribute the successful issue of his cases to the treatment which he pursued. Unless he be as conversant with the experience of others as with his own, he may long slumber under his delusion; but the time may come to him, as it has come to others, when, in spite of his cherished remedies, local and general, he will see a large proportion of the attacked perish from croup, or be saved only by tracheotomy performed in good time. The use of local applications to the throat of a diphtheritic patient is fraught with infinite danger to the applier. Many medical practitioners and medical students have received the diphtheritic poison in the spit of their patients, involutarily ejected on the application being made. Promising young physicians and some elder men—celebrities in medicine—have died of diphtheria so contracted. If we do apply anything to the throat, we can only do it with safety to ourselves if we wear a mask. But all potent applications to the throat have ceased to be in favour with those who have seen most of diphtheria. They say that iodine, nitrate of silver, and the like, generally produce increased exudation; while in other cases, where the exudative tendency is moderate, they seem to do little or no harm. The only local application now used by the author is the glycerole of borax of the *British Pharmacopœia*. It promotes the separation of the pellicle, and does not irritate the mucous membrane. The appearance of albumen in the urine is not of itself of evil prognosis. In many cases in which the urine has been intensely albuminous, we have complete recovery. Diphtheria is essentially characterised by intermittence in the gravity of the symptoms: a lull, often mistaken for the dawn of convalescence, is not at all unusual. After such a lull, as a prelude to an exacerbation of symptoms, we can usually, by the thermometer, detect a rise in temperature, and a concurrent appearance or reappearance of albumen in the urine. Touching the differential diagnosis of simple membranous sore-throat from the specific disease diphtheria, the author thought that it could neither be determined by the presence nor by the absence of fever, nor by any other than one test—a test simple and sure. Apply a small blister to the arm or elsewhere: if the case be diphtheria, the said surface will become covered with a diphtheritic pellicle; if it be not diphtheria, no false membrane will appear.—Mr. PRANGLEY, in reply, said that as regards the pulse, temperature, and urine, he could not get any information from them which was valuable in prognosis. He had in some instances tried for a time treating the cases without any local application, but as they became worse, he subsequently resorted to this mode of treatment. He could not agree with Dr. Bradbury that two diseases may coexist in the body. He thought it better to consider the two forms as one and the same disease, and to impress upon the friends the importance of mild cases.

General Remarks on the Internal Administration of Free Phosphorus. By J. ASHBURTON THOMPSON, L.R.C.P.—The author commenced with some literary and clinical prefatory remarks, giving the grounds on which his observations were founded. The former resulted from a perusal of nearly every note published on the subject during two hundred years; the latter from the administration of phosphorus in every kind of formula to many hundred individuals during the last nineteen months. The following propositions were submitted for discussion. The action of phosphorus varies strictly according to the form and dose in which it is given; thus, a stimulant, a tonic, or a poisonous action may be elicited at will. The stimulant power may be enhanced by an adjuvant. The choice of adjuvants is limited, the best being ether. The dose to be given for this purpose must not fall below one-twelfth of a grain, nor be repeated at any definite interval; but the quantity may be advanced to one-eighth of a grain, and is to be repeated as the occasion demands. The objects for which it is proper to employ phosphorus as a stimulant were described as being: preparation for unusual mental or bodily exertion; relief from the effects of such exertion; as a remedy for the typhoid state, especially in the specific fevers. From the use of a stimulant dose in calling forth the rash in the exanthemata, and its diaphoretic powers, an analogy was drawn between the power of a stimulant dose of phosphorus and a violent purgative (croton-oil) to remove an uncomplicated acute attack of trifacial neuralgia occurring in an otherwise healthy subject. The formulæ appropriate to the kind of stimulation desired in special cases were referred to and exhibited. The tonic power of phosphorus was considered. The mode of administration and the dose to be given for this purpose were described. The dose was fixed at one-hundredth to one-twenty-fifth of a grain. The dose must be carefully regulated within the prescribed limits, since phosphorus is appropriate as a tonic in cases in which its stimulant action would be disastrous. The special powers of phosphorus as a tonic were described as being: to renovate exhausted nerve-function; and to reconstruct altered nerve-matter. The facts from which these powers were inferred were detailed. The aphrodisiac power of phosphorus was not evinced under ordinary circumstances; but only if either the patient's sexual power were in abeyance, or if the dose given was excessive. Sexual excitement was therefore one of the signs, if not of poisoning, at least that the dose in use was excessive.

On the Treatment of Acute Rheumatism. By T. S. DOWSE, M.D.—After briefly reviewing several points in connection with the nature of this disease, and the various remedies which had from time to time been advanced for its treatment, the author explained his own remedial process, which consists in packing the patient as follows. The bed is covered with India-rubber sheeting, over which is placed a blanket, previously wrung out in hot water. The patient is then enveloped in the blanket, and covered with six folds of blanketing. The effect of this is twofold, namely, to increase the temperature, and promote profuse sweating. The former is aided by the administration of brandy in half-ounce doses every hour (when required); the latter, by drinking freely of warm milk and water. If the temperature of the patient exceed 102 deg. Fahr. before the packing, then the stimulant is not necessary. The treatment must be continued for three successive days, namely, for six hours the first, four hours the second, and two hours the third day. After the first packing the patient is free, or nearly so, from pain. After the second packing, the pain has completely subsided. After the third, the sour smell usually disappears. Dr. Dowse, after repeated trials, has found that these results are invariable, and that inflammation of the membranes of the heart is prevented. The following precautions in this mode of treatment are necessary. It should not be adopted—1. When the patient suffers from aortic incompetency; 2. If there be much fluid in the pericardium from previous inflammation; 3. If the temperature be as high as 104 deg. Fahr; 4. If, when the temperature is high, it be attended with a dry, harsh skin, without tendency to sweating; 5. If there be extreme nervous prostration, from habits of drunkenness, or other irritating cause; 6. If the patient be pregnant. He then brought forward some tabulated cases, out of a large number which had been so treated. Some of these were complicated with endopericarditis, pleurisy, and congestion of the lungs, but the result was invariably the same. He drew attention to an important point, that the temperature must be noted at intervals during the packing process, and, should it exceed 105 deg. Fahr., the treatment must at once be discontinued.

Case of Fibro-Nucleated Tumour. By T. S. DOWSE, M.D.—Dr. Dowse read a paper on a case of general paresis resulting from pressure upon the spinal cord, by a growth originating from the dura mater in the cervical region. It passed outwards between the second and third vertebræ by a kind of pedicle nearly an inch in length, and then expanded into a tumour of the size and shape of a small orange, occupying considerable space in the posterior superior triangle of the neck, where it was freely movable and non-adherent to surrounding tissues. Under the microscope, it was found to be fibro-nucleated in texture. The symptoms and signs of the paralytic state were fully described. The patient died quite suddenly—no doubt from paralysis of the centres of origin of the phrenic nerve. In connection with the dura mater laterally and to the right, there was found an abnormal substance pressing forwards and inwards upon the cord; in one part especially it pushed the membranes before it to the size of a small bean, pressing forwards the posterior nerves with the sensory ganglion, so that the ganglion could be distinctly seen, with the posterior and anterior nerves in connection with it. It was quite distinct from the cord, and the arachnoid membrane could be readily separated from it. Dr. Dowse said that the case was of interest both to the surgeon and to the physician: to the latter on account of the paresis; and to the surgeon on account of its free mobility, which might have led a bolder man than himself to attempt its extirpation.

On Spirometry, and a new Spirometer or Pneumometer. By V. A. JAGIELSKI, M.D.

Several Cases of Brain-Disease. By JAMES SHAW, M.D. (Thorpe).

Tumours involving the Cerebellum. By J. W. OGLE, M.D.—Observations were related by Dr. Ogle, including (1) a case of gliomatous tumour connected with the dura mater of the right cerebellar fossa of the occipital bone immediately above the foramen magnum, and producing softening of the cerebellum around; (2) a case of scrofulous tumours in the left lobe of the cerebellum and the inferior part of the pons Varolii; (3) a case of large blood-clot in the cerebellum, with softening of the cerebellum and of the posterior cerebral lobe. In one case, that (4) of a tumour in one lobe of the cerebellum, total blindness was one of the striking symptoms; and the ophthalmoscope showed that a form of retinitis existed precisely resembling that which is common in albuminuria, excepting that no hæmorrhages existed. The disease appeared to have begun very shortly after the patient's confinement, and at the time was attributed to an attack of rage, which was followed by "fits" of some kind. The recent observations on the functions of the cerebellum were alluded to in connection with the comments on the above cases, as those of Wagner, Brown-Séquard, Rolleston, Hammond, etc.

Illustrations of Lymphadenomatous Disease. By JOHN W. OGLE, M.D.—The contribution contained the details of certain cases of this affection, under which Dr. Ogle included not merely those cases of enlargement of the lymphatic glands, spleen, and liver, but also cases in which the white corpuscles of the blood were increased, with or without disease of the red corpuscles. As it would appear that the white corpuscles of the blood had a definite relation to the leucocytes or lymph-bodies which in this affection are found to exist in large numbers in the glands above mentioned, so, in all probability, when in excess in the blood, this excess has arisen from some affection of the glandular system, even though the glands do not present material increase in size. Dr. Ogle adduced among other cases, one in which the disease appeared in the shape of what is called leukhæmia, along with enlargement of the spleen; another in which the liver and spleen were enlarged, but in which the white corpuscles of the blood were not found to be increased; and another in which the liver and the spleen and the lymphatic glands were all enlarged, and the white corpuscles much increased. Commenting on these cases, Dr. Ogle dwelt upon the temperature-changes which were found to exist in the above three cases, in the first of which on six consecutive days it was greatly diminished, whilst in the others it was above the average. In connection with these cases, he adduced several cases observed and recorded by several others, in which peculiarities in temperature had been noticed; alluding to Dr. Southey's paper on Adenoid Disease in the *St. Bartholomew's Hospital Reports*, and a paper by Dr. Murchison in the *Pathological Transactions*, in which he had gone into the literature of the subject of so-called lympho-sarcoma and lymphadenoma. Dr. Ogle also alluded to certain observations which had been made in Germany by Neumann, and in America by Dr. Wood, on the condition of the marrow of the liver in this disease; and to the connection observed to exist by Ollivier and Ranvier in France, and others, between leukhæmia and certain affections of the brain and of the retina. In one case examined by Dr. Ogle after death, the marrow of the bones did not present any of the peculiarities which others have discovered in it in the disease in question.

The Pathogeny of Communicable Disease. By B. ANNINGSON, M.A., M.B.—After briefly reviewing the several germ- and fermentation-theories, Mr. Anningson maintained from, *inter alia*, the analogy of normal physiological processes and morbid anatomy, that the essential factors in the morbid processes, and the chief agents of infection in communicable disease, were epithelial cells and leucocytes, which multiplied in the affected individual, and were able to impart to healthy tissues a morbid action similar to their own. He was of opinion that the masses of living protoplasm in the lymph-tracts and the white blood-corpuscles had functions analogous to secreting gland-cells or nuclei of tissues; and that, just as cells otherwise indistinguishable possessed such varied chemical powers as the production of ptyaline, snake-poison, pepsine, etc., and the indifferent embryonic cells could build up the simple and complex tissues of the organism according to the direction primarily given to their activities, so the leucocytes, especially lymph-corpuscles, had definite secretive relations to the circulating fluids; and further, that, as the cells of secreting glands may have their original line of physiological action deflected, thus to speak, so as to give rise to morbid products, in the same manner the leucocytes may have a new direction imparted to their line of action by contact with a diseased cell (infection), or by some alteration of their normal surroundings from accidental circumstances, such as overcrowding, damp, etc. (*de novo* origin), and a poisonous matter result. A poison of this sort is "septine", found by Richardson in the blood of animals affected with pyæmia; and Mr. Anningson ventured to predict that other poisonous matters would be discovered in relation to other infective diseases. As an example of different functions of similar bodies, pus-cells and white blood-corpuscles may be compared; they are generally indistinguishable; both exhibit amœboid movements; yet how dangerous is the admission of pus into the blood! Mr. Anningson thought his view supported by the facts of morbid anatomy, which show excessive cell-proliferation as a leading feature in all communicable diseases. Moreover, cell-proliferation accorded as well with the symptoms of idiopathic fever as the growth of germs, which latter point was well put forward by Dr. Maclagan at the meeting last year.

ASSOCIATION INTELLIGENCE.

SHROPSHIRE SCIENTIFIC BRANCH.

THE annual meeting of the above Branch will be held in the Natural History and Antiquarian Museum, at Shrewsbury, on Wednesday, September 9th, at 1.30 P.M.; WM. EDDOWES, Esq., jun., President.

Papers on Hydrophobia and Chorea will be read, and others are promised.

The dinner will take place at the George Hotel at 4.30 P.M.

SAMUEL WOOD, *Honorary Secretary.*

Shrewsbury, August 14th, 1874.

MIDLAND BRANCH.

THE President of the above Branch, T. SYMPSON, F.R.C.S., intends to hold a quarterly meeting at Boston during the month of September.

Members desirous of reading papers, are requested to communicate at once with C. HARRISON, *Honorary Secretary.*

Lincoln, August 1874.

NORTHERN COUNTIES (SCOTLAND) BRANCH.

THE annual meeting of this Branch will be held in the Royal Hotel, Inverness, on Saturday, September 12th, at 11 A.M. J. J. Ross, Esq., M.D., of Inverness, *President.*

Particulars by circular.

The Council will meet in the same place at 10 A.M.

J. W. NORRIS MACKAY, *Honorary Secretary.*

Elgin, August 25th, 1874.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at Saltburn-by-the-Sea, on Thursday, September 17th, at 1.30 P.M.; Andrew Legat, M.D. *President.*

The following papers have been promised.

1. Dr. H. J. Yeld: The Health and Mortality of Towns and Villages, as affected by Sanitary Legislation.
2. Dr. J. W. Macdonald: Catarrhal Pneumonia.
3. Dr. J. W. Eastwood: Case of Insanity, complicated with partial Paralysis.
4. Mr. J. T. Parkinson: Case of Chronic Bright's Disease of the Kidneys (small contracted variety).
5. Mr. J. T. Parkinson: Case of Paracentesis Thoracis.
6. Dr. G. H. Philipson: Case of Hydatid Disease of the Liver, treated by puncture.

Gentlemen who desire to make communications at the meeting are requested kindly to communicate with the Secretary without delay.

Dinner at the Alexandra Hotel, Saltburn, at 4 P.M. Tickets, exclusive of wine, six shillings.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, August 26th, 1874.

CORRESPONDENCE.

THE DISCOVERY OF THE MECHANISM OF FLIGHT.

SIR,—It is extremely distasteful to me to have to reply to the anonymous assertions of one who either does not understand what he writes about, or, understanding, wilfully perverts the truth. Your correpondent, who designates himself "A Physiologist", endeavours to claim for Professor Marey of Paris, what Marey's own countrymen and the whole Continent have awarded to me, viz., the discovery of the true principles of flight. He does this in the face of Professor Marey's original statement to the French Academy of Sciences (*Comptes Rendus*, May 16th, 1870), to the following effect:

"I have ascertained that, in reality, M. Pettigrew has seen before me, and represented in his Memoir, the figure-of-8 track made by the wing of the insect; that the optic method to which I had recourse is almost identical with his. . . . . I hasten to satisfy this legitimate demand, and I leave entirely to M. Pettigrew the priority over me relatively to the question so restricted."

If, as your correspondent asserts, Professor Marey, in his last work, *La Machine Animale*, published in 1874, states that "his theory and mine differ radically from each other", then I can only say that Professor Marey has shifted his ground since 1870, and that I cannot, as your correspondent avers, be accused of a want of courtesy if I prefer his first statement to his second. The following passage from your correspondent's letter will speak for itself:

"As to the fact that the French physiologists do not eagerly vindicate Marey's claims, I regret to have to say that the cause of this indifference is well known. Jealousy is very rife among the physiologists of Paris, and Marey is too original and too able a man to please his elder colleagues. . . . . Meanwhile, his compeers and competitors are not unwilling to exalt Dr. Pettigrew, if, by so doing, they can do even a little damage to Professor Marey."

This is a truly humiliating statement! Is it possible that any member of our profession could so degrade himself as to malign, in this shameful manner, honourable and illustrious scientific men, merely because their testimony nullifies his own unwarrantable assertions? I leave to others to form their own opinion of the motives of "A Physiologist" who thus recklessly and unscrupulously impeaches the conduct of such men. The jealousy attributed by "A Physiologist" to the French *savans* could not possibly influence the Germans; but these, as I showed in my last letter (BRITISH MEDICAL JOURNAL, August 8th), award me priority of discovery over Marey in the matter of the figure-of-8 movements described by the wing in flight. The Italians, too (who can scarcely be supposed to be actuated by motives of jealousy in this case), uphold my claims to be considered the discoverer of the true principles of flight, as the annexed extract from a testimonial, furnished me by Dr. Schiff, Professor of Physiology in the University of Florence, will show.

"The work *On Flight*, without being a complete treatise of the mechanical conditions of this mode of locomotion, is generally and justly considered as the base of all the modern advances of our knowledge about the mechanical appliances by which flight is attained. It is known that the principal discovery it contains has been since confirmed by other methods quite different from those of the author."

So much for Continental opinion. If I turn homeward, the support I have received is not less hearty. Dr. Lauder Brunton, whose familiarity with Continental literature is well known, in advancing my claims for the Edinburgh Chair of Physiology, writes as under:

"Dr. Pettigrew's works have been translated into foreign tongues, and are highly prized by Continental physiologists, while his countrymen are proud to think that the credit of first discovering the mechanism of flight is fairly and admittedly due to an Englishman."

The *British and Foreign Medico-Chirurgical Review* is not less emphatic. As recently as April 1874, it states:

"But one of the most powerful of all the powers of locomotion is the fact, that motion in all animals is produced after one definite and simple method or plan. We have long been familiar with Dr. Pettigrew's 'figure-of-8'. It is many years since the author first made the discovery of the prevalent and extensive distribution of this peculiar mode of arrangement of muscular fibres in certain organs. Year after year Dr. Pettigrew has continued his investigations, and the more extended they have been, the more they have evidently convinced him of the truthfulness of his discovery, and also of the extensive applicability of this ellipsoidal factor of active motion. There can be no doubt that other authors have contributed facts in support of the beautiful theory of figure-of-8 motion. But it must be granted that Dr. Pettigrew was the first to discover it. If, then, M. Marey has made independent discoveries, we must ask the question how far these discoveries have been influenced by the previous labours of Dr. Pettigrew. Every one who enjoys the privilege of his acquaintance knows well that, long before 1868, Dr. Pettigrew was at work on this subject, and that his views were well known to the scientific public. There can be no doubt that, before Dr. Pettigrew's investigations and publications upon the figure-of-8 movements, little or nothing had been done. It is easy to extend the application of a discovery once made. The discovery is the chief difficulty, and he who first discovers deserves more credit than he who improves upon, or elucidates something new from, that discovery."

Your correspondent has a convenient way of getting out of difficulties. Those journals which express an opinion contrary to his own are "utterly wanting in scientific authority"; those gentlemen who, in the cause of science, and, let me add, of truth, have felt constrained to side with me, "are personal friends and former fellow-students," and, therefore, not entitled to credence. I rely upon the good sense of your readers. Such one-sided logic can, I fancy, have very little weight with them. I may, however, be permitted to mention, that I altogether deny your correspondent's statement when he says: "As recently as January of this year, the whole matter was gone into by thoroughly competent writers in both the *Athenæum* and *Nature*, and the utter fallacy of Dr. Pettigrew's pretensions was simply and forcibly exposed in reviews of his book on Animal Locomotion." The reviews here referred to, I may observe, were fully and fairly answered by me on their appearance, and I shall only be too happy if your readers do me the honour of perusing the reviews and replies for themselves. If these reviews, written apparently, like your correspondent's letters, for a purpose easily understood, were not printed in my "List of Works", it was because I did not wish to make my "List of Works" a controversial pamphlet. It was not, as your correspondent ungenerously and unjustly asserts, owing to a want of candour on my part. If I did not print the hostile reviews, neither did I print all, or nearly all, the favourable reviews. The want of candour argument consequently falls to the ground.

I further and most emphatically deny the accuracy of your correspondent's interpretation of my figure-of-8 movement. He says: "Dr. Pettigrew's diagram represents the twisting of the wing on its axis, but the arrows pointing out the direction of movement ought to be reversed." This is not so. My diagram is absolutely correct. Your correspondent, with the one-sidedness which characterises all his statements, or rather misstatements, makes it appear as if Professor Marey had only made experiments, and that my conclusions were based only on anatomical research. Now, I wish to inform your readers that I have made hundreds of experiments, not only with living and recent natural wings, but with every possible form of artificial wing. My conclusions, consequently, have been drawn from combined anatomical, physiological, and physical investigation. My results have, in every instance, been again and again tested by actual experiment. I hope this statement will extract the sting from the following bitter paragraph, penned by "A Physiologist who expresses no opinion".

"But I distinctly object to an anatomist bearing his claims to a physiological chair upon claims to a physiological discovery, with which his only connection, in reality, is that he has made a bad guess at an explanation of anatomical arrangements, which experiment has not verified, but refuted."

I beg to remind your correspondent that *Animal Locomotion* is not the only physiological work I have written, and that, therefore, my claims on the Chair of Physiology in Edinburgh do not rest on a single investigation. Your correspondent, having closed his own eyes, endeavours to lead others astray.

In conclusion, I desire nothing more sincerely than that your readers will peruse and examine for themselves my several works on Animal Locomotion, and compare them with similar works by Professor Marey. A deep, and I hope a proper, sense of professional and scientific etiquette will prevent my again replying to an anonymous writer, who makes a violent personal attack, and has neither the courtesy nor the manliness to sign his name.—I am, etc.,

J. BELL PETTIGREW.

Royal College of Surgeons of Edinburgh,
August 22nd, 1874.

THE RELATION OF HARD WATER TO STONE IN THE BLADDER.

SIR,—In Mr. Cadge's very able Address in Surgery, occurs the following observation. "I leave this question of the effect of hard waters, therefore, as an undecided one, requiring fuller investigation, and especially the tracing the absence or prevalence of stone in other countries, and connecting it with local influences or endemic causes." Living in a district in which stone is comparatively unknown, or, at any rate, of very unfrequent occurrence, I have often asked myself why it is so, and what peculiarities in the geological character of the country, the food of the people, their habits, or the nature of the drinking-water, could account for this, when the statistics of Derby and Leicester show that stone is more or less prevalent in their respective localities. I have only had two cases of stone under treatment in the last twenty years, in a district which numbers upwards of twenty thousand people. In one patient, a phosphatic calculus had been crushed by Sir James Paget some years before he came to live in this neighbourhood; and in the other, a lithic acid stone was passed, after great suffering, down the ureter, and subsequently voided with the urine.

As far as I know, no case has occurred in the town of Wirksworth in the last twenty years. It is built upon the carboniferous limestone. To the north of the town, we find the limestone formation everywhere; on the east and south, the millstone grit-measures; on the west, generally limestone. The drinking-water is soft and good, being conveyed in pipes from a covered reservoir supplied by springs which come from the gritstone; and this probably acts as a good natural filter. The following is a report upon this water some years ago by Dr. Bernays of St. Thomas's Hospital.

"It is beautifully clear and sparkling, very soft, and available for every household purpose. It contains a large amount of carbonic acid, to which the briskness of this water is owing. On further investigation, I found in one gallon:

	Grains.
Sulphate of lime	0.6500
Bicarbonate of lime	2.4480
Bicarbonate of magnesia	0.1370
Bicarbonate of iron	0.0090
Carbonate of soda	Traces
Chloride of sodium	0.0258
Silica	0.0080
Carbonate of potassa	Traces
Organic matter	1.1210
Free carbonic acid...	7.2160

"Its specific gravity is 1.00014.

"In conclusion, it is just such a water as one would expect from the millstone grit, and I have no hesitation in saying that no town in England is supplied with one of better quality."

Your correspondent Dr. Murray would probably expect a freedom from stone in persons drinking this water; but I am at a loss to account fur its absence in some of the villages near Wirksworth, in which the water is very hard, and obtained directly from the limestone. I shall be glad if any light can be thrown upon this point.

In conclusion, let me state that the two patients to whom I have referred were in easy circumstances, and could obtain all the necessaries and comforts of life. I am, etc.,

WILLIAM WEBB, M.D., F.R.C.S.

Wirksworth, Derbyshire, August 22nd, 1874.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE authorities of St. George's Union, at their usual meeting on August 21st, voted a sum of eighty guineas to Dr. Symes, medical officer of the Mount Street Workhouse, in recognition of his services in attending 239 lunacy cases, and giving certificates in 159 cases for admission to asylums.

APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

PATTEN, Charles A., M.R.C.S., to the Ealing urban sanitary district.

CROOK, John E., M.D., to the Northfleet urban sanitary district.

HOLMES, Charles, F.R.C.S., to the Slough urban sanitary district.

CLENDINNEN, William E., M.D., to the Stafford urban sanitary district.

SMITH, William J., L.R.C.P.Ed., to the Rawmarsh urban sanitary district.

APPOINTMENTS AS MEDICAL OFFICERS AND PUBLIC VACCINATORS.

TAYLOR, Frederick E., to the Wells district of the Walsingham Union.

THOMPSON, Edward T., L.K.Q.C.P., to the Whitmore district of the Newcastle-under-Lyne Union.

JACKSON, Joseph, L.R.C.P.Ed., to the Frodingham district of the Driffield Union.

HUNTER, Christopher, L.R.C.P.Ed., to the Carrick Dispensary district of the Glenties Union.

POPE, John R., M.R.C.S.Eng., to the Harrow Weald district of the Hendon Union.

BEAMISH, Robert T., M.D., to the Blanchland district of the Hexham Union.

ATKINSON, John P., M.D., to the Bampton district of the Witney Union.

PIGGOTT, Edward A., L.R.C.P.Ed., to the Stoke Ferry district of the Downham Union.

GORHAM, Patrick C., L.R.C.P.Ed., to the Roundstone district of the Clifden Union, co. Galway.

GREER, William, L.K.Q.C.P., to the Grey Abbey Dispensary district of the Newtownards Union, co. Down.

O'FARRELL, Henry, L.K.Q.C.P.I., to the Spiddal Dispensary district of the Galway Union.

CHARTRES, William, L.K.Q.C.P.I., to the Strangford Dispensary district of the Downpatrick Union,

MAHON, Charles J., L.K.Q.C.P.I., to the Workhouse, Dromore Union.

Scott, Thomas H., L.R.C.P.Ed., to the Easky Dispensary district of the Dromore West Union.

Hackett, John B., L.R.C.P.Ed., to the Ballyraggett Dispensary district of the Castlecorner Union.

Keyworth, John W., M.D., to the Aston Road district of the Aston Union.

Brewston, William, M.R.C.S.Eng., to the New Radnor district of the Kington Union.

Lloyd, Thomas Ll., L.R.C.P., to the Cheswardine district of the Drayton Union.

MILITARY AND NAVAL MEDICAL SERVICES.

Indian Medical Service.—List of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examinations held at Burlington House, on August 10th, 1874. Twenty-eight candidates competed for fourteen appointments, and all were reported qualified.

		Marks.			Marks.
1.	Stocker, R. N.	2340	8.	McCartie, C. J.	1898
2.	Bomford, G.	2190	9.	Lucas, J. C.	1885
3.	Barclay, A.	2156	10.	Adams, A. F.	1840
4.	O'Hara, W.	2135	11.	Sweetnam, M.	1800
5.	Tootell, E.	2065	12.	Oliver, J. P.	1795
6.	Gray, H. A. C.	1935	13.	Hume, T.	1755
7.	O'Keefe, J. L.	1910	14.	Parakh, D. N.	1720

ARMY MEDICAL APPOINTMENTS.

Surgeon Samuels has arrived at Athlone, from Enniskillen, and taken medical charge of the troops in that garrison.

Surgeon-General Balfour, M.D., has embarked for Gibraltar, to assume the duties of principal medical officer at that station.

Surgeon-Major M. Parish has been posted to the 17th Lancers for five years, in place of Surgeon-Major Greer.

Surgeon Barrow has received instructions from the War Office to proceed from the Eastern to the Northern District for duty.

Surgeon-Major Gore has reported his arrival in Dublin to the Surgeon-General, and has been posted for duty to the General Hospital.

NAVAL MEDICAL APPOINTMENTS.

Staff-Surgeon Francis W. Davis, additional, to the *Royal Adelaide.*

Staff-Surgeon Patrick Keelan (second class) to the *Sappho.*

Surgeon R. W. Coppinger to the *Cambridge,* as supernumerary.

Surgeon H. A. W. Richardson, to the *Topaze.*

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 20th, 1874.

Key, Augustus Cooper, Elliott Road, North Brixton
Skinner, Edward, Red Hill, Sheffield
Stocker, Charles Joseph, Globe House, The Green, Stratford

The following gentlemen also on the same day passed their primary professional examination.

Chadwick, George Richard, Guy's Hospital
Karop, George Charles, Middlesex Hospital
Pitt, Richard Joseph, Charing Cross Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ACCRINGTON and DISTRICT DISPENSARY—Medical Officer. Applications, 31st instant, to W. C. Parker, Secretary, *pro tem.*, 5, Croft Street, Accrington.

ANDERSON'S UNIVERSITY, Glasgow—Professor of Chemistry. Applications, 1st September, to J. B. Kidston, Secretary.

ATKINSON-MORLEY CONVALESCENT HOSPITAL—Resident Medical Officer: £75 per ann., furnished rooms, and board. Applications, 7th October, to Charles L. Todd, Secretary, St. George's Hospital.

BALLYSHANNON UNION, co. Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ballyshannon Dispensary District: £95 per annum, and fees. Applications, 19th September, to Robert Reynolds, Honorary Secretary, Mullins, Ballyshannon.

BIRMINGHAM GENERAL DISPENSARY—Additional Resident Surgeon; £130 per annum, rising to £150, £30 per annum for cab-hire, furnished rooms, etc. Applications, 29th instant, to A. Forrest, Secretary.

BRADFORD (Yorkshire) EYE AND EAR HOSPITAL—Assistant-Surgeon: £52:10 per annum. Applications, 8th September, to Wm. Maw, Secretary.

BRISTOL GENERAL HOSPITAL—Physician's Assistant: £50 per annum, board, lodging, etc. Applications, 24th Sept., to Henry Fox, R.N., Secretary.

CARLISLE DISPENSARY—Assistant House-Surgeon: £90 per annum, with apartments, coal, gas, and attendance. Applications to Mr. Davidson, Honorary Secretary, 8, Devonshire Street, Carlisle.

CORK SOUTH CHARITABLE INFIRMARY and COUNTY HOSPITAL—Resident Apothecary and House-Surgeon: £100 per annum, and furnished apartments. Applications, 2nd September, to the House Committee.

FOREST HILL DISPENSARY—Medical Officer.

GLENTIES UNION, co Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Doochary Dispensary District: £100 per annum, and fees. Applications, 31st instant, to John O'Donnell, Honorary Secretary, Knockletra, Stranolar.

GLOUCESTER COUNTY PRISON—Surgeon: £175 per annum. Applications, 15th September, to George Riddiford, Clerk of the Peace, Gloucester.

GREAT NORTHERN HOSPITAL—Physician-Surgeon. Applications, 15th September, to A. Phillips, Secretary.

HULL AND SCULCOATS DISPENSARY—Resident Surgeon: £150 per annum, with house-rent, coals, and gas free. Applications, 2nd September, to G. W. Stourton, Hon. Secretary.

HUNTINGDONSHIRE COUNTY HOSPITAL, Huntingdon—Medical Officer. Applications, 15th September, to R. H. Gatty, Honorary Secretary.

LUNESDALE UNION—Medical Officer for the Workhouse and Hornby District: £30 and £70 per annum, and fees, respectively. Applications, 8th Sept., to Robert Stephenson, Clerk.

NEWCASTLE-ON-TYNE INFIRMARY—Physician. Applications, 3rd September, to R. Y. Green, Secretary.—Senior House-Surgeon, and Junior House-Surgeon, if present one should be appointed Senior. Applications, 15th Sept.

NEWPORT UNION, co. Mayo—Medical Officers for the Ballycroy and Achill Dispensary Districts: £100 per annum, each.

NORTHAMPTON GENERAL INFIRMARY—Dispenser: £100 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Resident Medical Officer. Applications, 7th September, to A. Boodle, Secretary.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—House-Physician: £80 per annum.

SOUTHPORT CONVALESCENT HOSPITAL—Resident Medical Officer and Superintendent: £80 per annum to commence, with £10 additional each year to £10c, with board, lodging, and attendance.

STOCKPORT URBAN SANITARY DISTRICT—Medical Officer of Health and Public Analyst: £150 for one year, office, and stationery. Applications, 14th September, to Walter Hyde, Town Clerk.

SUNDERLAND AND BISHOPWEARMOUTH DISPENSARY—Junior House-Surgeon; £60 per annum, with board and residence, with yearly increase of £10.

TYNEMOUTH UNION—Medical Officer for the Workhouse: £100 per annum.—Medical Officer for the Tynemouth District: £60 per annum.

UNIVERSITY COLLEGE, London—Professor of Comparative Anatomy and Zoology.

WESTMEATH COUNTY INFIRMARY—Medical Officer. Applications, 17th September, to J. Swift, Treasurer.

WEST WARD UNION—Medical Officer and Public Vaccinator for the Patterdale District: £10 per annum, and fees. Applications, 2nd September, to the Chairman, Hackthorpe.

YORK DISPENSARY—Resident Medical Officer: £130 per annum, apartments, coals, and gas. Applications, 3rd September, to S. W. North, Esq., Castlegate, York.

YORKSHIRE LUNATIC ASYLUM—Resident Medical Superintendent: £300 per annum, house-rent and taxes free; coals, gas, vegetables, milk, and washing provided; £150 will be expended on substantial furniture. Applications, 19th September, to the Committee, under cover to R. D. Horne, Clerk.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*Barham, Charles, M.D., appointed Consulting Physician to the Royal Cornwall Infirmary.

Caddy, Henry, M.R.C.S.E., appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* W. Williams, M.D., promoted.

Crowe, George W., M.B., appointed House-Surgeon to the Warneford Hospital, Leamington.

Crowe, John W., L.K.Q.C.P.I., appointed House-Surgeon to the Hartlepool Hospital.

Ferrier, David, M.D., appointed Assistant-Physician to King's College Hospital.

Lloyd, Edward J., M.D., appointed House-Surgeon and Secretary to the Denbighshire Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

Lattey.—On August 21st, at Wood House, Southam, the wife of Walter Lattey, L.R.C.P., M.R.C.S., of a daughter.

MARRIAGES.

Kenny—Collins.—On August 12th, at Holme-on-Spalding Moor, by the Rev. G. A. Shanahan, Pastor of Holme Hall, York, assisted by the Rev. C. P. Kenny, of Limerick, brother to the bridegroom, and the Rev. F. Gorrelli, M. A. Kenny, L.R.C.P.Ed., to Annie Mary, only daughter of George Collins, Esq., Holme, York.

Paget—Price—On August 12th, at Standish, Lancashire, William S. Paget, M.B.Lond., to Margaret Elizabeth, eldest surviving daughter of John Llewellyn Price, M.R C.S., Standish.

Hydrophobia.—A painful case of hydrophobia has been investigate by the Manchester coroner. Two or three months ago, a boy, named Dunstan, was bitten by a bull-and-terrier dog, and the wounds were afterwards cauterised and bathed. The wounds healed in a fortnight; but, shortly afterwards, all the symptoms of hydrophobia manifested themselves; and, after enduring frightful agony, the boy died on Monday last. The doctor who made the *post mortem* examination was of opinion that the boy had exhibited all the usual symptoms of hydrophobia.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M —Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M. —Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

WEST LONDON HOSPITAL, Tuesday, September 1st, at 3 P.M. Ovariotomy, Lithotomy (female); Removal of Exostosis. By Mr. W. F. Teevan.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer and publisher, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 37, Great Queen Street, W.C.

DR. JOYCE (Cranbrook).—It is not possible, nor, under the circumstances mentioned in our correspondent's letter, would it be proper for us to offer an opinion on the merits of the case. We would, however, strongly advise him to hold firmly to the position which he has taken.

THE SONG OF THE UNION DOCTOR.

SIR,—It appears to me that the "Song of the Union Doctor" is written in very bad taste, and from a morbid and discontented disposition. No one is bound to accept office under the Local Government Board; and whoever elects to do so, does it with a general knowledge of the inconveniences of a post that can be resigned at will, and ought not to be grumbled at so long as it suits the incumbent to retain it.

That the Poor-Law Medical Officers' Association has not effected the good that might have been expected of it is due less to its fault than the supineness of those who should have supported it. Let Dr. Campbell set a good example with his £10, and send it to Dr. Rogers, who will be very much obliged for it, on behalf of the Association, which the latter has established with great self-sacrifice, and by which much good has been done.

I am, etc.,

G. S. SYMMONS.

Ledbury, August 22nd, 1874.

SIR,—The letter from Mr. Monckton, in your last issue, is of considerable importance, in showing to those interested in the treatment and welfare of the sick poor one of the quarters from whence opposition to an improved system of medical relief is likely to be offered. Mr. Monckton thinks that those who complain should resign their appointments. The fallacy of this plausible suggestion is the fact, that it would apply no remedy, for changing the medical officers would not change the system; and no one would be justified in giving up, on sentimental grounds, a post, the weak points in which he had consistently and honourably called attention to, in favour of another, who could not be more satisfied with the state of affairs even were he less inclined to make known his convictions. It is one of the (sacred) duties of the authorities to see that the medical officer has such facilities as to be able to afford proper time and consideration to each and every case under his care; and the time that he requires for compounding and dispensing could be far better occupied in mental and scientific culture and research in aid of the diagnosis and treatment of diseases. Allowing medical officers to pay for drugs is not defensible on any grounds, and that such is the case was admitted when dispensaries were instituted in some places. Perfect unanimity on these subjects is hardly to be expected, as there are sure to be some who, being being better paid, or having their work done by assistants (perhaps unqualified), or living out of their districts, or practising, or expecting to practise, among their guardians, or being in weak health, and looking forward to a pension from their guardians, or other personal motives, may reasonably be expected to keep aloof, or even to be antagonistic; but let others take courage; it may take time to obtain what is required, but the common sense of the country is strong, and will prevail.

I am, etc.,

LAM-ALEPH.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Printing Office, 37, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

THE TITLE OF DOCTOR.

M.B., C.M., asks: Will you or any of your readers inform me if the British Medical Association would sanction the holder of M.B., C.M., to put the courtesy title of "Dr." on his door-plate?" If not, should the name and diplomas be both printed on the plate?

HOTEL-KEEPERS AT NORWICH.

T. Q.—We have received, with regret, many complaints of the rapaciousness of the hotel-keepers at Norwich during the late meeting. It should, however, be borne in mind that the influx of a large number of visitors into a city like Norwich, where the hotel accommodation is comparatively limited, is likely to drive up prices, and to tempt the inhabitants, to use a homely illustration, "to make hay while the sun shines".

THE NON-MERCURIAL TREATMENT OF CERTAIN DISEASES.

SIR,—It appears to me that the time has arrived for some independent member of the profession to expose, as far as possible, the fallacies and dangers of the non-mercurial treatment of certain diseases, and to lay bare the audacious manner in which mercurialists have been cited in support of antimercurial doctrines. This disingenuous trick has certainly had a startling effect upon the minds of the public. Almost daily I see patients who refuse mercury in any form whatever; and even medical men have a fashion nowadays of prescribing the drug in the most timid, inefficient, and vacillating manner possible. It is useless to urge the *laissez aller* system in this matter: it has been tried and found wanting. The reviewer of a pamphlet by myself, in the *Edinburgh Medical Journal*, August 1874, says: "There is no doubt that though the cry raised against mercury in syphilis has not influenced the profession much, yet it has had some effect on the public, and that to the great annoyance of practitioners and the injury of their patients, who sometimes refuse to take even the smallest dose of mercury."

In order to counteract these injurious tendencies, a pamphlet bearing my name will be circulated right and left throughout the kingdom. This explanation, I think, is due both to myself and to the profession.

I am, etc.,

R. SISSON, M.D.

37, Warwick Road, Maida Hill, August 24th, 1874.

⁂ We sincerely trust that, for his own sake as well for the sake of the profession and the public, Dr. Sisson will not carry out his threat. The more than doubtful advantages of the end will certainly not justify the obvious impropriety, folly, and mischief involved in the use of the means. Practitioners who are in the habit of prescribing mercury do not need the intervention of Dr. Sisson between themselves and their patients to reconcile their patients to their prescriptions. The public do not need to be stirred up to use mercury on their own account; and when it is prescribed by the medical attendant, he may be left with advantage to influence his patient's heart without the aid of popular pamphlets. A *popular* crusade in favour of mercury would be a thing ludicrous to contemplate, if it were not even more shocking than ridiculous. Popular counterblasts are full of danger and degradation in such a matter; and if Dr. Sisson should persist in carrying out his threat, he must expect to be judged and treated with as much severity as if his motives were as evil as his course would undoubtedly be.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Aug. 24th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Edward Waters, Chester; Dr. Embleton, Newcastle-upon-Tyne; Dr. Henry Barnes, Carlisle; Dr. Buchanan, Glasgow; Dr. W. Williams, Liverpool; The Secretary of the Hospital for Consumption, Ventnor; Dr. W. Draper, York; Our Paris Correspondent; Dr. J. Batty Tuke, Edinburgh; Mr. B. J. Vernon, London; Mr. Eastes, London; Dr. C. Harrison, Lincoln; Dr. Bradbury, Cambridge; An Old Member; Dr. J. Morton, Glasgow; Mr. Walker, Glasgow; Dr. J. Crichton Browne, Wakefield; Dr. Moxon, Brigg; Mr. G. S. Symmons, Ledbury; Our Dublin Correspondent; Dr. Sisson, London; Dr. Webb, Wirksworth; Dr. G. M. Humphry, Cambridge; Mr. Odell, Hertford; Dr. Pettigrew, Edinburgh; An Associate; Dr. Russell, Birmingham; Dr. Grigg, London; Dr. Hardie, Manchester; Dr. Jolly, Birmingham; Mr. T. Holme Nicholson, Manchester; Our Edinburgh Correspondent; Dr. D. Toler D. Maunsell, Dublin; Lam-Aleph; Dr. Harris, Redruth; "Personally Indifferent"; Dr. A. W. Edis, London; Dr. James Thompson, Leamington; Dr. Madge, London; Dr. Cheadle, London; Dr. Duncan Bulkley, New York; Dr. Goodell, Philadelphia; Mr. Wm. Date, Crewkerne; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Mr. G. E. A. Moir, London; Dr. Martin, Portlaw; Blighted Warrant of 1864; Dr. Beverley, Norwich; Dr. Batty Tuke, Edinburgh; Mr. Chauncy Puzey, Liverpool; Mr. Gornall, Warrington; Mr. Jackson, Birmingham: Dr. Menzies, Naples; Dr. Philipson, Newcastle-on-Tyne; Mr. E. J. Clarke, Sheffield; Mr. Piggott, Stoke Ferry; Mr. Haviland, Northampton; Dr Drury, Pulham St. Mary; Mr. W. F. Teevan, London; etc.

REMARKS
ON
A CASE OF SUICIDAL POISONING WITH BURNETT'S FLUID.

By H. M. TUCKWELL, M.D., F.R.C.P.,
Physician to the Radcliffe Infirmary, Oxford.

A MAID-SERVANT, aged 21, was brought from a village near Oxford to the Radcliffe Infirmary on the afternoon of February 2nd, 1874. The person who brought her stated that she had taken Condy's fluid* about six hours before. An emetic was at once given, and vomiting encouraged by draughts of warm water. The girl was put to bed, and ordered to take nothing but cold milk. I saw her on the following morning. The body was plump and well nourished. She lay on her back, with an anxious and depressed face; was quite sensible, and answered all questions clearly and readily; but her voice was feeble, almost whispering. She stated that on the previous day, about noon, in consequence of a quarrel with her fellow-servant, the cook, she resolved, in a fit of desperation, to destroy herself. She went to a cupboard where was a bottle labelled "poison", containing a white fluid; she uncorked the bottle, poured out about three-parts of a teacupful, and drank it off. As the fluid passed down into the stomach she felt no pain, but directly afterwards she was seized with a violent burning pain at the pit of the stomach, and vomited the contents of the stomach. She was now suffering from a feeling of great faintness, and a burning pain at the epigastrium and under the left ribs. Her throat was sore, and she had some difficulty in swallowing. She had retched frequently since admission, but there had been no action of the bowels. The lips, mouth, and tongue, were unhurt; but the soft palate, uvula, tonsils, and pharynx, were inflamed. There was much tenderness on pressure at the epigastrium. Pulse 144, very feeble. She was ordered to suck ice, and to continue the cold milk.

February 4th. She had severe pain in the epigastrium and left hypochondrium. There was less vomiting, but still a little retching, with which she brought up a little mucus. She felt very faint if she attempted to raise herself in bed. The mucous membrane of the soft palate was covered with a white film, not unlike diphtheritic membrane. A slough was separating from the right tonsil and uvula. She had had no action of the bowels. There was no albumen in the urine.

February 8th. The vomiting had stopped for three days. The pain was relieved. The soft palate was covered with a yellowish slough.

February 12th. The vomiting had begun again last night, when she brought up a potful of black fluid, with much mucus, some shreds of tissue, and much clotted milk. The sloughs in the throat had not yet separated. Pain was constantly felt in the left hypochondrium, and was increased by food. She was ordered to continue milk-diet, and to have an enema of warm water.

February 20th. A copious black pitchy stool followed the enema. She had had no more sickness. The throat had healed.

March 9th. The pain and sickness, which had abated for awhile, had returned. She had suffered occasionally from attacks of tetanic spasm in the right forearm and hand, which lasted for a few minutes and then passed off, being unattended with loss of consciousness.

March 23rd. She was in much the same state. Yesterday she had passed, after an injection, another copious dark pitchy stool.

April 2nd. The vomiting and pain had both increased, and she was rapidly losing flesh. She was ordered to take nothing but ice by the mouth, and to have four times in the twenty-four hours an injection of strong beef-tea and brandy.

April 9th. She had continued vomiting, though nothing but ice had been taken. The vomited matters contained a considerable quantity of altered blood.

April 18th. She had become steadily thinner and weaker. The vomiting had continued quite uninfluenced by remedies, of which prussic acid and morphine had been the chief. The vomited matters were whitey-brown in colour, with a dark sediment. The gums were becoming spongy, and bled.

May 9th. Injections of beef-tea and brandy had been continued steadily. She had sucked ice and sipped iced water, and occasionally sucked an orange, but nothing else was taken by the mouth. She still, however, retched and vomited, at intervals, a brownish fluid with a flocculent sediment, but not containing bile. She had passed daily on an average one pint of urine, of specific gravity 1025-1030, turbid with lithates, but not containing albumen. There had been no action of the bowels since March 23rd.

May 22nd. Yesterday, after an injection of warm olive oil, she passed a copious motion, pultaceous in consistence, and of a greenish colour—the first action of the bowels for eight weeks. The vomited fluid was now tinged with bile.

May 29th. There was extreme emaciation; the gums were spongy; and she had a peculiar fœtor of breath. The trunk and extremities had a strange bluish mottled appearance, from innumerable petechiæ and vibices. The skin of the legs was covered with thick scales. Her intellect was clear by day, but she wandered at night. Her voice was reduced to the faintest whisper. She retched at intervals, and vomited a greenish fluid. Pulse 130, scarcely perceptible. Injections of beef-tea and brandy were still continued, and had been now given uninterruptedly for fifty-seven days, during which time she had taken nothing but iced water and a little orange-juice by the mouth. She died the same afternoon.

Her temperature rose for the first few days after the poison was taken till it reached 100.6 deg.; it then slowly fell, and reached its lowest point, 96.4 deg., on May 8th; from which time till death it ranged from 96 to 98 deg., but never fell below 96, though it was taken within a few hours of her death. Life was prolonged one hundred and sixteen days after the poison was swallowed, during which time the bowels were moved only three times.

The verdict was, "That the deceased took poison while in an unsound state of mind".

Necropsy, by Dr. Rayne and Myself, Seventeen Hours after Death.—The body was greatly emaciated. Rigor mortis was slight in the legs; very slight in the arms. The surface of the trunk and extremities was very thickly covered with ecchymoses, seen during life. The skin was tough; there was no trace of subcutaneous fat. The muscles were pale and wasted. The omentum was shrunken and filmy, totally devoid of fat. *Heart:* There was a mere trace of fluid in the pericardium. The substance of the heart was generally pale, soft, and flabby. A large pale clot, entangled in the tricuspid valve, extended through the auriculo-ventricular orifice into the right auricle. There was a little atheroma on the anterior segment of the mitral valve. The *Lungs* were healthy. There were old tough adhesions on the right side; the left pleura was empty of fluid, dry and sticky. The pharynx and œsophagus were healthy. *Stomach:* With the exception of the cardiac orifice, which was healthy, the whole of the mucous membrane of the stomach was of a deep red colour, thickened, and softened. This redness was uniformly intense, as far as that part of the fundus which lay in contact with the spleen: here the redness was deeper than elsewhere, and there was an ulcer of the size and shape of a penny-piece, which had penetrated the coats of the stomach, but had been prevented from perforating, partly by the spleen, which formed the floor of the ulcer, partly by adhesions which passed from the spleen to the stomach, and were recent and thin, so as to tear readily when stretched. The stomach contained from half a pint to a pint of green fluid, just such as the girl had vomited during the last week of life. The pyloric orifice was small and tight from firm contraction of its sphincter, but there was no real constriction of the opening. *Small Intestines:* The duodenum, in its ascending and descending portions, was congested and bile-stained; in its transverse portion, deeply congested. The jejunum and ileum were deeply congested throughout; the solitary follicles were swollen and bright red. In the subperitoneal coat of the lower ileum were a few deep ecchymoses, reminding one of what is seen in the skin. *Large Intestines:* The cæcum was congested. The mucous membrane of the large intestine, from the ascending colon to the rectum, was of a dull leaden colour, with here and there an admixture of the deep red seen in the small intestines. A considerable quantity of greenish pultaceous fæcal matter was contained in the transverse and descending colon. The *Liver* was large and swollen, with rounded margins; it weighed sixty-three ounces. The surface was smooth, greasy, soft, and doughy, of a pale fawn-colour. On section, it was soft and greasy, breaking down readily under the finger; of the same fawn-colour as the surface. The lobules were large and distended with fat. The gall-bladder was distended with bile. The *Pancreas* was of the same pale fawn-colour as the liver, evidently fatty. The *Kidneys* were large, swollen, buff-coloured: the capsule stripped off too easily. On section, the cortex was found to be increased in thickness, and buff-coloured; the pyramids were deep red, offering a marked contrast to the cortex. The calyx of the right kidney was distended with a discoloured fluid containing much gritty substance. The ureter was blocked at its orifice by a small mulberry calculus.

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* On subsequent inquiry, it was ascertained that the bottle from which the poison was taken contained Burnett's, not Condy's, fluid.

Microscopical Examination.—Liver: On scraping the cut surface, nothing but fatty granules and oil-globules were seen; no liver-cells. Sections of the liver were hidden by agglomerations of large oil-globules. Where the liver-cells could be here and there seen, they were stuffed out with oil. *Kidneys:* On scraping the cut surface of the cortex, nothing but fatty and granular matter could be seen—no portions of tubules, and no cells. On sections of the cortex, the convoluted tubes were swollen, and appeared almost black with granular and fatty matter. Where the tubules were cut transversely, the epithelium could only be seen in some of them; in the greater part it was hidden by abundant granules. On freezing portions of the cortical substance with ether-spray, and making very fine sections with a Beale's knife, the epithelium lining the tubules was brought into better view, but was still in part hidden by fatty granules. The pyramids were unaffected by this fatty accumulation. *Heart:* The muscular fibres of all parts of the ventricular walls were in a state of advanced fatty degeneration. The pectoral and rectus muscles showed fibres in different stages of fatty degeneration, but none so advanced as in the heart.

REMARKS.—Chloride of zinc, from the mere accident of Burnett's fluid being in the hands of the people of this country, may be fairly called an English poison. In a case which occurred in Germany some years ago (Canstatt's *Jahresbericht*, 1866, p. 307), recovery followed after sixty grains of the salt in solution had been swallowed; but I can find no other instance of the kind recorded in foreign publications. In England, this poison has now proved fatal several times, and has been taken in the form of Burnett's fluid, either with suicidal intent, or accidentally, by mistake for "fluid magnesia". Death follows more often rapidly, by the violent twofold action of the poison as an irritant or corrosive and as a depressor of the nervous system. But occasionally life has been prolonged for many days, or even weeks; the patient sinking at last from inanition caused by the secondary effects of the poison on the œsophagus, stomach, and intestines. Of ten fatal cases recorded, including my own, death was rapid in six, more or less protracted in four. Where death is rapid, intense inflammatory changes are found in the fauces, œsophagus, and stomach, and sometimes, though not always, in the lips and mouth. Where death has been slow, there has been found, once, thickening of the coats of the stomach and closure (? constriction) of the stomach; once, complete closure of the stomach by constriction of the pyloric end; once, softening and well marked ulceration of the stomach and intestines, with extravasation of much blood; once (my own case), inflammation and ulceration of the stomach, together with inflammation of the small intestines.

As regards the smallest quantity of the fluid which is sufficient to destroy life, nothing positive can be said—much depending on the emptiness or fulness of the stomach at the time when the poison is taken, on the rapidity with which vomiting follows, and on the time that elapses before medical help can be summoned. In Dr. Wardell's case (*Lancet*, January 9th, 1864), "three parts of a wineglassful" caused rapid death; and the same writer refers to a case in the *Times* of July 6th, 1863, where half a wineglassful had a similar result. Now, an ordinary modern wineglass for sherry holds, on an average, two-and-a-half ounces of fluid; an ordinary port-wineglass, nearly three ounces: indeed, I am not sure that I could not produce one of the latter sort from one of our Oxford "Common-rooms" capable of holding four ounces. At any rate, half a wineglassful must be equivalent to at least an ounce. According to Pereira's estimate, one fluid-drachm of Burnett's fluid contains twenty-five grains of zinc-chloride; so that an ounce of the fluid, containing two hundred grains of the salt, has been known to cause rapid death. On the other hand, Dr. Hassall's case (*Lancet*, August 20th, 1853) swallowed three ounces by measure of the fluid, equal to six hundred grains of zinc-chloride, and recovered after a very severe and protracted illness. This is the largest dose which I can find recorded as being taken without a fatal result. In my own case, the teacup from which the girl drank contained by measure six ounces; so that, from her own account, she must have taken at least four ounces of the fluid. With Dr. Hassall's case before us, it is quite possible that she may have taken this quantity and have lived a hundred and sixteen days, more especially as she vomited quickly the contents of the stomach.

From a medico-legal point of view, the absence of all injury to the lips and mucous membrane of the mouth is worthy of notice. The same fact was observed by Wardell and Hassall, and is doubtless to be explained by the way in which the fluid was drunk—tossed off, and not sipped.

Other interesting features in this case are: 1. The tetanoid contractions of the arm, which were also observed by Dr. Hassall in a marked degree; 2. The long time—fifty-seven days—that life was supported by injections, water only being taken by the mouth; 3. The abundant petechial spotting and streaking of the body, which has been occasionally seen in death from starvation (Taylor's *Medical Jurisprudence*, p. 744); 4. The remarkable fatty changes in certain organs of the body and in the muscular tissue, coexisting with extreme general emaciation of the body. These changes were of two kinds. In the liver, kidneys, and pancreas, there was a positive infiltration or accumulation of fat, not a substitution or degeneration; for, after the fat had been removed from them in the process of mounting microscopical preparations, the natural structures were found to be perfect; the epithelial lining of the tubules of the kidney more especially was as regular and well preserved as in the illustrations given in books. In the muscles, on the other hand, there was a true fatty substitution or degeneration. Two different explanations of these strange appearances may be given. It may be said that chloride of zinc is analogous to phosphorus in its action on the tissues; both poisons being strong irritants, and both having a powerful action on the nervous system. That the liver is directly affected by chloride of zinc, is clearly shown by Dr. Hassall, who noticed for a long time an almost complete absence of bile in the stools of his patient. Dr. Letheby (*Medico-Chirurgical Transactions*, 1850) also points out that the same poison acts with energy on the kidneys; he found these organs greatly congested after rapid death from Burnett's fluid. Lastly, the *post mortem* appearances in my case are identical, as far as the fatty changes are concerned, with those enumerated in cases of phosphorus-poisoning scattered through German and French medical literature. But, in phosphorus-poisoning, this fatty infiltration and degeneration begin very shortly after the poison has been taken. Less than a week suffices to produce them in a marked degree; and, in a case recorded by Fritz (*Archives Générales de Médecine*, July 1863), advanced "steatosis" of the liver, kidneys, and muscular tissue was developed within seventy-seven hours from the time that the phosphorus was taken. Now, in no single instance of poisoning with chloride of zinc, whether acute or chronic, has any such steatosis been hitherto met with; nor has the jaundice which is so regular a symptom in phosphorus-poisoning ever been seen after chloride of zinc has been taken. Inasmuch, then, as the case that I have related stands alone in respect of the peculiar *post mortem* appearances under consideration, a more probable way of explaining them is this: that the fatty infiltration of the internal organs is a result of the slow process of starvation which the girl's body underwent, and is, therefore, to be compared with that storing up of fat in the liver seen after death from phthisis and other diseases of emaciation. Frerichs (*Diseases of the Liver*, New Sydenham Society's translation, vol. i, p. 298) has found fatty liver as a frequent accompaniment of death from inanition consequent on diseases of the stomach, stricture of the œsophagus, etc. He would, no doubt, consider this girl's condition as favourable to this kind of fatty accumulation. Kept absolutely at rest in bed, with no muscular waste; her breathing reduced to its lowest limits, and thus imitating the obstructed respiration of the phthisical; an abundant natural development of fat in the outset; a diminished secretion of bile from impaired or spoiled digestion; the body supplied with alcohol as its chief food for several weeks before death,—it is likely that her blood would become "loaded with fat taken up during the advancing emaciation, in order to be employed for supplying the demands of the metamorphosis of matter in the system" (Frerichs, *op. cit.*, p. 285); and that this fat would, as in the phthisical, accumulate gradually in certain of the internal organs. The true fatty degeneration of the muscular tissue is probably to be regarded as a form of "necrobiosis", or slow death of tissue, commencing even while the body as a whole was still alive.

As regards the treatment of this form of poisoning, one or two different plans have been tried with success; but, of course, everything depends on the time which has elapsed before an antidote can be given. So concentrated is Burnett's solution, that a very short contact with the mucous membranes is enough to corrode them and convert them into a substance which has been compared to leather. In Dr. Hassall's case—the most remarkable instance of recovery on record—a mixture of eggs and milk was freely administered, and continued as long as it was vomited in a curdled state. He recommends strongly the administration of "copious and long continued supplies of albuminous matters". In a case related by Dr. Stretton, soap-suds were given freely, and life was saved after two hundred grains of the chloride in a wineglassful of water had been taken. The carbonates of potash and soda have also been successfully used; and it seems reasonable that, if a person could be seen soon enough after the poison had been swallowed, there could hardly be a better plan of treatment than this. Copious draughts of warm water, holding in solution one of the alkaline carbonates, would throw down the insoluble carbonate of zinc, and at the same time promote vomiting. In my own case, it was impossible to adopt any definite plan of treatment, seeing that the girl was not brought to the Infirmary for six hours, and that the real nature of the poison was not made known when she did arrive.

SUCCESSFUL RESECTION OF THE SHOULDER-JOINT IN A CASE OF GUNSHOT WOUND.*

By SIR JOHN ROSE CORMACK,
Chevalier of the Legion of Honour; M.D.Edin. and Paris; F.R.S.E.; F.R.C.P.Lond. & Ed.; Physician to the Hertford British Hospital, Paris, etc.

BETWEEN six and seven o'clock on the evening of April 12th, 1871, when reposing at home after a long and anxious day's work among my wounded, I was summoned to the Ambulance Anglaise to receive four soldiers of the Commune, who had been wounded an hour or two previously at the bridge of Neuilly. Within two minutes, I was beside my new patients; for the Ambulance Anglaise (entirely maintained by Sir Richard Wallace) was installed in a spacious mansion and garden close to my house. One of the new comers was Alphonse Brunet, a strong muscular man of communistic type, thirty-four years of age. By trade, he was a mason. The exigencies of the Franco-German war had made him a soldier; and the civil war had more recently made him one of the pseudo-military masters of Paris.

On my arrival, I found him yelling lustily, and evidently suffering intense pain. Experience justified me in attributing his noisy violence more to alcoholic preparation for fighting, than to the wound which he had just received. Like many of our wounded of the second siege, he came to us in an almost frenzied state, the result of alcoholic excesses, bodily pain, and a peculiar form of mental excitement engendered by the desperate game which all knew hâd to be played out to a terrible end. It was not without difficulty that Brunet was undressed and put to bed. He had to be held down by infirmary men, whilst I examined his wound. The whole hospital was disturbed by his noise and cries.

I found that a rifle-bullet had entered from behind, at the top of the right shoulder, and had made its exit in the anterior aspect of the upper third of the arm, smashing in its traject the head of the humerus and the upper part of its shaft. This information was at once obtained by introducing the little finger into the wound. In very recent gunshot wounds, although the hole made by a Chassepot bullet is small, finger exploration can often be made either with or without enlarging the wound. There is no probe equal to the finger, when the wound admits of its being used.

The patient at once consented to amputation, or any other operation which I might deem necessary, provided it relieved him from pain. Lack of daylight, and my own state of fatigue constrained me to postpone the operation till the morning. At that period, moreover, I had to perform operations under great difficulties. I could only command one assistant possessing any professional training—my son, Mr. J. R. Baillie Cormack, who during the German siege had served in the American Ambulance, till it was closed on March 1st, when he came to the Ambulance Anglaise.

I left the patient (about eight P.M.) having administered to him a grain of opium, and directed another grain to be given at midnight should he then be noisy or sleepless. It was found necessary to give the second grain at midnight. At the commencement of my visit at seven next morning, I saw the patient. He was tolerably calm. He was reported to have slept very little, if at all, during the night. He complained of intense pain in the shoulder and arm; and objected to the slightest examination of the wound being made till he should be put under the influence of chloroform. I agreed to act in accordance with this wish. At nine o'clock, on a beautiful sunshiny morning, the patient was carried from his bed to an adjoining room, and placed in an easy position on the operating table in front of two large windows. My friend, and near neighbour, Mr. Falconer Atlee, Her British Majesty's Consul, kindly responded to my appeal, and came to aid us as he had before done in similar circumstances. Taking a deep interest in surgical proceedings, and doing exactly what he was appointed to do, he made a most efficient and reliable assistant in such emergencies. As the operation was likely to be of long duration, and from the patient being already considerably narcotised by opium, as his contracted pupils showed, I directed my son to give the chloroform very cautiously and slowly, which he did by placing near the patient's mouth a napkin folded as a hollow cone containing within it a small quantity of chloroform. The time occupied in bringing the patient fully under the influence of the vapour was twenty minutes. He gently passed into complete anæsthesia, after a short stage of subdued talkative delirium. Mr. Atlee then took charge of the chloroform, allowing the vapour to be inhaled at such intervals, and to such an extent, as was sufficient to keep up, without dangerously increasing, the narcosis. At the first plunge of the knife, the patient moaned slightly, but during the whole operation, which lasted forty-five minutes, he remained quiet and motionless, with normal pulse and respiration. He was not at all roused by removal from the operation table; and remained in a profound sleep for half an hour after he was replaced in bed. On awaking, he was quite free from pain, and spoke to me very pleasantly, expressed satisfaction that his arm had not been amputated. He did not seem to be the same man who had been so unruly and noisy on the previous night.

In severe gunshot wounds, it is of immense importance to bring the patients, with the least possible delay, under the obtunding influence of opium; and, sometimes, to maintain them for days under that influence. It is, of all the drowsy drugs, the most valuable in such cases. To use it skilfully, cautiously, very watchfully, is often to secure recovery from the most terrible mutilations of war—provided there be a possibility of recovery. It not only removes pain and calms the nervous system, but it likewise, in a marvellous manner, sustains the vital powers.

From their position, neither of the two apertures made by the bullet could be utilised in the operation. I, therefore, made a single longitudinal incision at the outer side of the joint, through the deltoid and in the course of its fibres, exposing well the bone. Three small arteries had to be tied. There was no troublesome bleeding. Notwithstanding the muscularity of the patient and the depth of the incision, I got a good view to the bottom of it. Having dislocated the head of the humerus, I dissected out the pieces—more than twelve in number—of the smashed head and shaft. I then examined carefully with my fingers the irregularly fractured end of the humerus, pushing and pulling each of its jagged points, so as to enable me to determine whether the shaft was or was not split down towards the elbow. In musket-ball wounds, it is not always easy or possible to determine whether a long bone is or is not split, because a longitudinally fractured shaft may be maintained for days in an apparently unfractured state by the periosteum and surrounding tissues. Having come to the conclusion that the remainder of the shaft was sound, I resolved to try to save the arm; and, therefore, forthwith proceeded to complete the operation by removing the irregular end of the bone. My son grasped the arm a little above the elbow, and so manipulated it as to push the bone through the incision, whilst I, holding the extremity to be removed in my left, used a small saw with my right hand. The arm which had been operated upon was then flexed at the elbow, and laid across the chest. It was securely, but with very little pressure of bandages, attached to a concavely moulded oakum-padded pasteboard splint, so that it might be easily examined during the day without occasioning pain or displacement. Cold water dressings were applied by means of light compresses, and were diligently continued during the day. There was a considerable sanguineous oozing for some hours. In the evening, the cavity was syringed with creasote-water, when five or six minute pieces of bone, not much larger than pinheads, were washed out. More solid bandaging was then adopted, and a grain of opium was administered when the night-nurses took charge at 9 P.M.

I ought to mention that, with the exception of two or three cups of cold beef-tea during the night, the patient had no food of any kind from the time he entered the ambulance, at or about 6 P.M., till near noon next day, on his thoroughly emerging from his chloroform-sleep. He then had, at his own request, a basin of milk-coffee, some bread, and a small glass of brandy.

Immediately after the operation, the patient was able to move his hand, the thumb and each finger; he could also squeeze tightly with the hand. Sensation in arm or hand was never in the slightest degree impaired.

For a few days, half a grain of opium was given night and morning; great attention was paid to digestion and alimentation, the latter being generous. By means of a sufficiency of properly placed oakum, the purulent discharge, which soon became very profuse, was removed every three or four hours, the more thorough washings and dressing with creasote-water being performed once in the twenty-four hours. The wound very soon showed a disposition to contract and close. Unfortunately, it was allowed nearly to close about a fortnight after the operation. At that date, everything seemed to be going on well, when he was suddenly seized with rigors, and there was great tension and tumefaction in the right mammary region. To this region, large poultices were applied. Tincture of cinchona was freely administered. In two or three days, an abscess had declared itself in the upper and anterior aspect of the right side of the chest. When pressed upon, a fulness was perceived in the axilla, and pus was caused to flow from the reopened operation-wound. Free incisions were made, and drainage-tubes were introduced, so as to prevent matter from accumulating in the axilla, or elsewhere in pouches. This state of matters rendered the daily dressings most tedious and troublesome, but, after a short period, did not apparently interfere with his general well-being. He was keenly alive to the exciting rumours and incidents of each day, slept well, and fared generously. This internal medication was slightly varied from time to time; but his principal medicines were iron, gentian, cinchona, and rhubarb. Occasionally, he had a few grains of grey powder and a smart saline cathartic.

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* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

On May 28th, he was out of bed for some days. On and after the 31st of that month, he was in the habit of spending several hours daily sauntering and sitting in the garden. He had, however, after that date, occasional suppurations near the seat of the operation; and several times minute scales of bone were detected in the matter which came from the partially healed operation-wound. So late as February 1872, he had an abscess in the arm, when I removed with the forceps a small piece of necrosed shaft of humerus. Since that date, the cicatrisation has been solid and complete.

Exactly one year after the operation—that is to say, on April 12th, 1872—I had the photograph taken which I now exhibit. He was then, as he is now, August 1874, in excellent health. You will observe that he is holding the removed portion of the humerus—three-and-a-half inches in length — in the hand of the operated arm. The fragments have been joined together, as you now see them in the preparation now submitted to your inspection. He can make good use of his arm in many ways. He can lift with it great weights, such as large pails of water and baskets of coal; he can write and work a sewing-machine with it. He can place the palm of the hand on his forehead. To the casual observer, he can do everything with his arm which others can; but it is not so; he cannot stretch the arm outwards far from his side. The false articulation is marvellously strong and flexible. There is not the slightest atrophy of any of the muscles, except the deltoid, which is much smaller than that of the opposite side, though now it has not nearly so wasted an appearance as it had twelve months ago.

I need hardly say that Brunet did not remain under my care till April 12th, 1872, the date of the photography. In the preceding August, when our Ambulance was closed, I tried, without success, to prolong his stay at Sir Richard Wallace's temporary convalescent-house at Levallois-Perret, then in use for the remainder of my wounded; and, after several prolongations of his residence with us, I was obliged to deliver him over to the authorities, a medical inquiry by them having resulted in an official letter to me, stating that he was quite well and must be removed forthwith. He was imprisoned for some time, and then tried by one of the courts-martial installed for many months at Versailles. He was, for reasons not disclosed, acquitted without the infliction of any punishment. On the day of his acquittal, his wife and he came to see me. As he entered my consulting-room, I expressed my surprise at seeing him, saying that I thought he had been, or was to be, shot. He replied: "I expected either to have been shot or banished for life; but, a few hours ago, the *conseil de guerre* dismissed me without even a scolding, and without calling for the evidence against me." I may add, that he has at last got occupation as a door-keeper, and has retrieved his character. He lost situation after situation on its transpiring that he had on him the war-brand of the Commune.

CASE OF MEDIASTINAL SARCOMA, SIMULATING "CALLOUS MEDIASTINO-PERICARDITIS".

By T. CLIFFORD ALLBUTT, M.A., M.D.,
Physician to the General Infirmary, Leeds.

THE following case of mediastinal sarcoma deserves to be recorded both for its own interest as a somewhat unusual form of intrathoracic growth, and also for the resemblance which it bears to the affection first observed, I believe, by Griesinger,* and further described by Kussmaul, under the name of Callous Mediastino-Pericarditis.

The patient was a girl, named Davidson, who was admitted some time ago into the Leeds Infirmary under my care. Her illness on admission was so great that Dr. Barfoot, then house-physician, sent for me to see her as soon as possible. His own first impression was that there was extensive effusion into the pericardium and the pleural cavities, and that tapping of one or more of these cavities should be practised forthwith. This impression seemed to me on the first view of the case to be just. The girl had not the aspect of one worn out by prolonged cachexia, but rather of one suffering under the pressure of an acute disease; and she had the præcordial anxiety, the pallor, the distress, and the fear of movement which are often seen in pericardial effusion. We learnt that her father and mother were living and well, but that a sister had died of phthisis at the age of 21. The patient was aged 16, was a weaver, and had always enjoyed good health, save an attack of small-pox when young. On Shrove-Tuesday, she caught cold by going out to "play at skipping" with her hair wet. A bad cough followed the cold; and, as she did not improve, the mother feared she might run into a consumption like her sister. She took her, therefore, to two medical men, who told the mother her lungs and chest were unaffected. But the girl's breathing became very short, and she grew altogether worse; and, for a month previous to admission, she had been unable to lie down on account of great dyspnœa and palpitation. She had never complained of pain at any time, but said that "if she could only get her breath, she would soon be well". She was admitted on May 9th, 1874, and was of delicate appearance with dark hair and eyes. The superficial veins of the neck were prominent, and she had the distressed aspect already described. When we came to examine her carefully, however, we found that, although there was considerable dulness in the middle of the chest, yet the distribution of it forbade the inference of pericardial effusion. Taking the base line of dulness from the lower edge of the liver and heart, it extended upwards all over the front of the chest, leaving only a triangle of resonance at the upper and outer corners. The two outer thirds of each clavicle might be taken as the upper side of an equilateral triangle of comparative resonance on each side. All beside was dull, and the dulness reached about an inch beyond the mammary line on each side. On the left side of the chest, however, there was another district of dulness continuous with the former and clearly corresponding to a small pleuritic effusion. The pulse was small, rapid, irregular, and sometimes intermittent. The respiration was very shallow and frequent; so much so, that it was impossible to say whether inspiration had any effect upon the fulness of the jugular or upon the radial pulse. We thought it desirable to attempt to relieve her for a while by tapping the left pleura; and fourteen ounces of clear fluid were, therefore, taken away from that cavity by the aspirator. She died, however, fifteen minutes after the operation.

As regards the diagnosis of the case, I thought that it closely resembled the affection to which I have already referred, namely, "callous mediastino-pericarditis"; an affection which I only knew from a description of it in the *London Medical Record* (December 17th, 1873), taken from a paper by Kussmaul, in the *Berliner Klinische Wochenschrift* (Nos. 37, 38, 39, 1873). The diagnosis lay, of course, between this and a more common kind of mediastinal tumour. It was found to be a diffused sarcomatous growth or thickening, closely resembling the disease described by Kussmaul, and attaching the sternum to the aorta, though not lessening the lumen of that vessel, as in Kussmaul's cases. The early death prevented our having the opportunity of fairly seeking for the "paradoxical pulse", or for respiratory influence upon the jugulars. It is probable that a diagnosis between the two conditions might be impossible; fortunately, it is of little practical importance. For an account of callous mediastino-pericarditis and its curious symptoms, I must refer the reader to the *London Medical Record* (*loc. cit.*); I have only space to subjoin the description of the parts removed from the chest, which I placed in the hands of Mr. Greenwood, the resident curator at the Leeds School of Medicine.

The specimen consisted of the thoracic viscera removed *en masse*. The pericardium had been opened. There was enormous dilatation and thickening of the pericardium, due to a firm yellowish homogeneous-looking growth, occupying the anterior mediastinum and reaching above to the thyroid on the left, and to the diaphragm below on the right. The chief mass of the tumour was situated in front of and around the base of the heart, completely embedding the great vessels at the root of the neck and the arch of the aorta, and closely adherent to them, but not seemingly contracting their calibre, though they were rather small, the descending aorta especially so. The tumour blended insensibly with the pericardium, which gradually thinned out to each side and behind to nearly the normal thickness. In front, it had evidently been adherent to the sternum and costal cartilages for a considerable breadth, and had been continued along the pleura costalis. Below, the adherent diaphragm showed several nodules of similar structure. The enlarged pericardium formed a nearly globular sac, flattened below where it rested upon the diaphragm, and about eight inches across. Its lining was more opaque than natural. The heart was small, flabby, and pale. Along its anterior borders and near the base were several nodules of the new growth, on incision evidently infiltrating its muscular tissue. The lungs, which had evidently been laterally displaced, were small and almost airless, with the exception of their apices. Around their roots, and extending along the vessels and bronchi, and the edges of the lobes for a short and variable distance, was the same sort of tissue as in the mediastinum. The microscopic appearance of the growth was that of small round cells, with no fibrous stroma, and very little intercellular substance. A section from a nodule upon the heart showed the same material infiltrating the muscular fibres. And in one from the root of the lung the pulmonary tissue was infiltrated with similar small cells. There can be little doubt, I think, that the tumour was a sarcoma, commencing in the mediastinal connective tissue, spreading by continuity along the pericardium, pleura, and heart; in each case being more developed where more connective tissue naturally existed, as along the vessels, costal pleura, etc., but also infiltrating the subjacent tissues.

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* I find no notice of it in Griesinger's collected works, edited in 1872, 2 vols.

TWO CASES OF *POST PARTUM* HÆMORRHAGE TREATED BY THE INJECTION OF PERCHLORIDE OF IRON.

By W. P. SWAIN, F.R.C.S.,
Surgeon to the Royal Albert Hospital, Devonport.

WITHOUT wishing to fan into a flame the dying embers of controversy on the subject of the injection of perchloride of iron in *post partum* hæmorrhage, I desire to put on record the two following cases which have occurred in my practice during the last six months.

CASE I was that of an exceedingly fine, handsome lady, a primipara. Her pregnancy had been uninterruptedly good. Labour commenced on the evening of January 21st. The presentation was normal, the pains good, and a fine male child was born about half-past seven on the morning of the 22nd. I gave a small quantity of chloroform at the last. Immediately after the delivery of the child, I found a second head presenting, and, as the pains were not very expulsive, I put on the forceps and delivered a second male child in a few moments. I then removed the placenta, which was single and of enormous size. Considerable hæmorrhage occurred at the moment the placenta was expelled, but the womb contracted firmly, and a binder was put on. Within a few minutes, however, I found the uterus largely expanded, and, on pressure, a huge clot was expelled. I immediately introduced my left hand into the uterus, making pressure externally with the right, but was unable to produce any uterine contraction. During the whole time there was a constant and excessive flow of blood from the vagina, and the patient became collapsed. I administered brandy in large quantities and ergot, and the moment ice could be obtained I placed a large lump in the cavity of the womb, and a bag of ice on the abdomen. All was, however, of no avail, and my hopes of saving the patient were at zero. In the mean time, I had obtained further professional assistance, and, with the concurrence of my father and Mr. Whipple, I injected perchloride of iron into the uterus, in the manner advised by Dr. Barnes. From the moment of the injection all flow of blood ceased, although the uterus remained for some time flaccid. The lady made an excellent recovery, and, with the exception of a little lymphatic tenderness in the right thigh, complained of nothing during her convalescence. I should mention that, on the second day and on every succeeding day for some time, the vagina was thoroughly well syringed out with Condy's fluid and water.

CASE II. I was asked by Surgeon-Major Ferguson to see at the Women's Hospital, on July 9th, a soldier's wife in her third pregnancy. She had a contracted pelvis in its antero-posterior diameter. In her first confinement she remained a hundred and eight hours in labour; in her second, eighty-seven hours. No instrumental assistance was afforded on either occasion, and the children were still-born. This time she had been in labour sixty hours, and I found the head well down on the pelvis, but tightly fixed there. I suggested the application of the forceps, and in a very short time, after the use of considerable traction, the child was born alive, but lived only for half an hour. The placenta was removed at once without difficulty, and the uterus contracted for a short time, but in a few moments tremendous hæmorrhage set in, the blood being projected from the vagina on to the floor some distance from the bed. I immediately passed my left hand into the uterus, cleared out its contents, and endeavoured to secure contraction, whilst cold water was poured on to the abdomen from a height, and brandy freely administered. This, however, did not correct the bleeding, although it somewhat lessened in quantity. Feeling that another gush of hæmorrhage might be fatal, I injected the perchloride, all the materials being fortunately at hand. The uterus at once contracted, all hæmorrhage ceased, and I hear from Dr. Ferguson that the woman has made an admirable recovery.

I think I may fairly claim two lives for the perchloride treatment. In the first case, all the usual resources, excepting galvanism, were tried in vain; the lady lay dying before our eyes, and there can be no doubt that any further hæmorrhage must have turned the balance against her. In the second case, so rapid and so large was the loss of blood, that nothing short of *immediate* arrest could have saved the patient; and this the perchloride certainly effected.

LEAVES FROM MY DIARY DURING THE ASHANTEE WAR.

BY ALBERT A. GORE, M.D., F.R.C.S.I., Surgeon-Major,
Late Surgeon 34th (Cumberland) Regiment.

VI.—THE CLOSING DAYS OF OUR VOYAGE.

THE night after leaving Sierra Leone, we passed the mouth of the Sherborough, which, with the Mesurado, are the only two considerable rivers entering the space intervening before the commencement of the Grain Coast of Guinea is reached—a distance of some two hundred miles. At the mouth of the former are the Plaintain Islands, the residence of the Chief of the Kossoos; and on its banks are found a species of pearl-oyster. The Mesurado is a larger and more rapid stream, with finely wooded and fertile banks; according to the natives, taking three months to ascend to its source. We were now steaming by countries whose states are entirely negro in religion and manners, and their sovereigns absolute as a rule. Next morning, September 7th, was fine but clouded; a light wind was blowing from the south-west; and already we were beginning to feel the long swell which was rolling in in great waves from the Atlantic. As the day advanced, it became more sultry, the hygrometer reading 78 and 83 deg. in the shade on deck at 3 P.M., where we had now commenced to breakfast and dine, the cabin being far too close. We passed Cape Mount, forty miles west of Monrovia, at 8 P.M., anchoring, at 1 A.M. in the morning of the 8th, at Cape Mesurado, which, as the sun rose, appeared as a stunted promontory, apparently about two hundred feet high. Two or three houses surrounded by coffee-plantations, and a light tower above, were visible from the deck of the steamer. About a mile to the left was the mouth of the river; and, on an island there, Monrovia, the capital of Liberia, a settlement formed by the Americans in 1820, with the object of obtaining an asylum for liberated negroes. The territory is said to be healthy and fertile. A few Kru canoes could be seen creeping along the shore in the dull and clouded early morning, which just before had been wet and raining, the bulbs reading 74 and 76 deg. in the shade under the dripping awning at 7 A.M. A hazy but very beautiful moon had been sufficiently indicative the night before of the coming day. We lost here another of our passengers, the Netherlands consul, who was returning to his factory on the river. While on board, he had told us many amusing stories of Liberia and the Gold Coast, where he had been several years. From all we heard, the Society of the African republic must have been very peculiar. Cape Mesurado is two hundred and sixty miles from Freetown. At times, the surf breaks here with such violence, that landing is extremely difficult and dangerous. Just before leaving at 10 A.M., our Krumen had had an exciting chase after one of their number, who had absconded in a shore-boat, getting into the bush before them; they failed to catch him, much to their chagrin and our captain's annoyance.

The Grain-Coast (so called from the grains of paradise or Malaguetta peppers, *Amomum grana paradisi*, whose scarlet pods grow here in abundance, and were largely exported to Europe in the sixteenth and seventeenth centuries) which we were passing, appeared as a fringe of lowland, with a series of ridges or undulating paps four or five hundred feet high, and some miles in the interior. We could see the spray of the surf on the beach quite distinctly from the deck of the steamer.

From here to the river Volta, there is very little difference in the nature of the soil; within five or six miles of the shore it is silicious, the hills met with in every direction being composed principally of gneiss and granite, mica-slate entering into the composition of some at no great distance. Under the long continued influence of air and moisture, these are rapidly passing into decomposition, the carbonic acid in the water removing the potash from the feldspar and mica, the water afterwards separating the silicate of alumina and quartz, the former being soon washed away and deposited, forming the clayey or argillaceous soil mixed in the hollows with the decayed vegetable or animal matters which abound, giving rise to those rich alluvial valleys in which the natives delight to make extensive plantations. Such washings are rich in gold, which exists in very minute grains in the white, red, brown, or amethyst-coloured quartz, the sand found in the inner valleys being nothing more than very small grains of silica and quartz. Limestone is absent, but the number of fossil and other shells amply compensate for the want. Under the improvident system of agriculture adopted by the natives, the mineral food contained in the soil is soon exhausted, and it becomes barren in consequence of no manuring being attempted or any substance added which would serve directly as food for the plants, which are the same year after year, and removed to a distance for export or consumption. The sesquioxide of iron is not nearly so abundant as in the soil of the upper coast. These characters of the surface-coating are reflected in the waters which flow over it, and which are rich in vegetable organic matter, and in the products of animal decay when in the vicinity of the filthy native villages. Flooded in the rains with the overplus of the neighbouring (up to these) stagnant marshes, they must be as laden with the malarial poison as they are coloured with the blue, white, or brownish yellow clays stirred up from the bed or washed from the hollow tanks, the mica in which spangles like gold. Near the sea, the surface-wells are largely impregnated with chlorides, derived from saline sands or sewage, a mineral constituent only faintly indicated in the inland streams; lime-salts (as might be easily inferred from the nature of the primary rock) being also absent, except in very minute quantities.

As we steamed along, a few rain-clouds and passing showers could be seen darkening or floating over isolated spots on the land; at nightfall, vivid flashes of lightning played round the hill-tops. As seen from the deck of the steamer, the effect was extremely pretty. It rained heavily until daybreak of the 9th. As the sun rose above the horizon, the sky was clouded, a light breeze was blowing from the south-west; at 7 A.M., there were only three degrees between the temperature of the air and that of evaporation. Just as we found ourselves opposite Grand Cess, a large Kru village, we could just see a number of huts, with their brown conical grass roofs, packed closely together; not a soul was to be seen. The site of the village was a level spot, a mile or two in length, with the same undulating paps in the distance. To the right appeared a long ridge of discoloured granite; a small white flag was flying near the beach. After we had fired a gun, and waited some time, a solitary individual appeared on the shore, followed shortly afterwards by another. After having a good look at us, they condescended to get into a small canoe, and put off in reply to our summons. Like others of its kind, the little Kru canoe was long and narrow, barely capable of holding two men, who, seated upon their haunches, with their legs extended before them, usually up to their hips in water, paddled with much dexterity, stopping for a moment every now and then to bale out the contents. Our object in communicating with the shore was to get Krumen for Captain Glover's little steamer, which had already sailed from Ireland. The same heavy swell was rolling in and dashing upon the shore, the little canoe alternately appearing and receding from view as it neared the steamer. One of the occupants, a late head Kruman on board a man-of-war, was quickly informed of our wants, which he promised to supply by the time the steamer called, on getting a "book" from the "Governor," the name by which Captain Glover was generally known along the coast. When leaving, he begged hard for a piece of pork and bottle of gin, both of which were given him by our good-natured commander. This is the usual method by which the "boys" are collected and forestalled along the Kru shores. Previously bespoken, they are shortly collected and subsequently shipped to their several destinations. A mile or two above could be seen Little Cess, between whose inhabitants and the village, we were often communicating with, there was a deadly feud, or woman "palaver." Only a short time previously to our visit, two of the Grand Cess Lotharios had been killed in the bush while attempting to steal some of their neighbours' wives, showing how much in request were the gentler sex in this very primitive part of savage Africa.

The influence of the land upon the trade-winds and the intervening calms is very powerful upon this seaboard and side of the Atlantic; and the peculiar configuration of the coast of Guinea, tending, as it does, along the very axis, or line of division, of the northern and southern land systems, causes a different set of phenomena to arise. During that part of the year when the sun is in the southern hemisphere, the trades and calms follow the usual or normal course, as it is then exerting its maximum of force on the sea, with its low absorptive and radiating powers; but when, during the northern summer, it is raising the temperature of the land of the Guinea coast, a new phase arises, from the heated atmosphere over the land drawing the wind towards it, and instead of south-east or north-east winds, we have a south or south-west occurring with great regularity between Cape Verde and Cape Mesurado. From September to June, there is a north-east or north wind; in the rest of the year, a south-west wind; in effect, a monsoon.

From the twentieth degree of north latitude to the environs of the line, the months of July, August, September, and October are those of the rainy season, when the atmosphere emits its waters to the earth; the only difference is twenty days sooner or later in the arrival of these torrents, the rainy season always commencing at each place on the west coast to the northward of the equator, when the sun passes the zenith of that particular spot in his course towards the north, during the month previous to which the change of weather usually commences; the latter, or little rains on the Gold Coast, being the showers which accompany the southerly winds blowing along the coast during the month of November. On the windward coast, from Cape Mount, which we had just passed, to the river Assikee, where the gold shores commence, from January to May, the weather along the seaboard is constantly fair and clear, with cooling breezes and gentle southerly winds; but about the middle of May, south and south-east winds begin, accompanied not only with hurricanes and stormy gusts, but also with thunder, lightning, and great rain, which continue, more or less, to the conclusion of the year. From the Assikee to the Volta, the wind in January begins to blow from a south-west direction, becoming stronger in February, bringing with it sometimes rain, sometimes a hurricane. About the end of March and beginning of April, those heavy tempests occur, called by the Portuguese "tornadoes;" these continue to the end of May. During the rainy reason, May to July, little or no land winds are felt, but from the sea it blows from the south-west and west-south-west, making a very great swell, which continues even in August, although the rains begin to cease in that month. The weather becomes fine in September, and the air clear with gentle southerly winds, and this continues until January, the hottest days being in December, on the Gold Coast as well as on the windward coast. The range of the thermometer is not great as a rule; but it has fallen as low as 66 deg., and risen as high as 95 deg. in the shade in the air, the mornings, up to 6.30 A.M., being cool and agreeable, the mercury rarely rising above 75 deg. or 76 deg. Fahr. The average heat throughout the year is about 82 deg., the maximum rise in the black bulb 156 deg., and the rainfall about 120 inches. The tornadoes, or thunder-storms, last in greatest violence from fifteen to twenty minutes; preceded by a calm dead heat, they are followed by deluges of rain, and later still by a deliciously cool atmosphere. The dry season commences later and later at each intermediate place towards the equator, beginning at the Senegal as early as the latter end of October.

As we approached Cape Palmas, it appeared as a rocky promontory jutting towards the north-east. Upon the summit was a light-house, and to the west a fine sandy bay. In the back ground were a number of palms, shading the American Mission and other substantial looking houses. On the beach was lying the wreck of the steam-ship *Yoruba*, at anchor were a couple of brigs, a small English steamer, which would only progress at the rate of two and a half miles the hour, and the *Africa*, on the point of sailing for England, her captain very red in the face, and furious at being detained by his mate, who had come on board us for news. We here heard, for the first time, of the blockade of the Gold Coast, and the seizure of the American vessel trading in contraband of war. News had also arrived that sickness was very prevalent among the natives, who, in consequence of the dearth of provisions, had been obliged to import corn and fruits from Lagos, Cape Coast being quite surrounded from the land side. The rock here appeared to be the same discoloured granite, or dark gneiss, the sand of a rich golden colour, further inward becoming white and glistening, very beautiful to look at from the sea. Here and there ledges of rock shoot out in small promontories, with the same background of dense forest and rounded hills, pretty bays, and ruined fortiluces. From Cape Palmas commences that system of lagoons and canalisation which runs parallel with the coast, far away to the east, in some places extending many miles into the interior.

The night was beautifully clear, and the sky studded with myriads of bright and twinkling stars, variegated in the south with a milky way of surpassing beauty. The usual vivid lightning played in the north-east, and the phosphorescence on the rippling waves added much to the *ensemble* of one of the most lovely nights we had hitherto passed in the tropics. A light breeze, cool and agreeable, was blowing gently over the sea, reducing the temperature to 76 deg. at 8 P.M., as, steaming due east, we entered the Gulf of Guinea, the El Dorado of the older Portuguese mariners, who in 1450 had first sighted the headland we had just left. The waters of the Gold Coast extend from the Gold River, near Apollonia, in longitude 2 deg. 35 min., next to the Volta, 41 min. 2 sec. east, 225 miles in a direct line.

The morning of the 10th September was cool and chilly, the temperature under the awning at 7 A.M., down to 75 deg., rising only 4 deg. by 3 P.M. The sky was cloudy, and shoals of "ship-jacks," followed by predatory sea-gulls, rippled the water all round the steamer. As the breeze sprung up from the north-west, it began to rain. As we approached Half Jack at 9 A.M., it became for a short time close, warm, and calm, although at the moment the readings of the hygrometer were only 75 deg. and 78 deg. in the shade in the air. The sand on the beach had now assumed a reddish yellow colour; there appeared to be no surf, no hills were to be seen, only a small fringe of mangroves, and some distance in the background the trunks of a few tall trees stood out in bold relief from the stunted bush which surrounded them. At ten minutes to 11 A.M., we anchored opposite Half Jack, a rather large native village, on a small plain open to the water. Here we saw, for the first time, the canoe-shaped surf-boats, the natives sitting in a row along the gunwale, digging their flat circular or heart-shaped paddles in a series of rapid jerks into the sea, resting for a minute, after a few quick movements, to sing some ditty, the music and words of which were rhythmical, and the effect pleasing and singular. A similar method of propelling canoes extends along the coast far to the leeward. During the intervals, light motions of the paddles keep time to the music of the song. Sometimes the paddles, when working in quick succession, make a peculiar churring noise, difficult to describe. In our immediate vicinity were three large Bristol ships and a schooner at anchor.

Half Jack is the head-quarters of the West African Bristol trade, the vessels of the small mercantile squadron lying here for months at a time, only relieving the monotony by a short cruise to windward or leeward. Sometimes these ships do not return to England for two years at a stretch. The masters of the vessels, who are also the supercargoes, are obliged to give large credits, all of which are returned in the shape of palm-oil, gold-dust, and ivory. We were shortly boarded by two of the captains, who appeared in blooming health. They had come to obtain some potatoes, onions, and a few other necessaries, giving gold dust, their only circulating medium, in exchange. Being rather anxious to ascertain how the problem of maintaining health in such a place was solved, I entered into a long conversation with one of our visitors. He said the crews were healthy, not suffering from fever, except when it had been contracted elsewhere and previously to arrival on the coast. Occasionally, during the rains, they suffered a little from rheumatism. Upon the commencement of the wet season, all took to wearing flannel suits and underclothing. The general sanitary arrangements appeared to be excellent. Each ship had a crew of thirteen hands, who were carefully protected from the sun by awnings spread fore and aft. The crews were chiefly composed of married men, who, having wives and families to support at home, were found more useful and steady, and so were especially sought after. On no pretence whatever were they allowed to land while their ships remained off the coast. The water is brought from Bristol and kept in tanks in the hold; supplemented by rain-water, the supply is found to be sufficient, that from the shore being never used. Before leaving England, each captain has the selection of his own provisions, which are of the best quality; the good and juicy corned beef provided being preferred by the men to the preserved provisions. These two kinds of food are supplemented by periodical supplies of fresh pork and vegetables; fowls from the neighbouring villages: yams are also largely consumed. During the week, fresh and preserved meat are taken on one day each, corned beef on the remaining five. Lime-juice is issued daily, and each sailor is allowed a glass of grog well diluted with water twice a day, not a bad allowance by the way. The crews, assisted by natives, are constantly at work in their floating houses, which lie about a mile from the shore. Being not entirely stationary, or anchored at the *embouchure* of a pestilential river, as are the hulks in the Bonny, may in part account for the excellent hygienic results obtained. Only native boatmen are employed to ascend rivers or go on shore; and this little nautical colony seems settled down steadily to work until the moment arrives for its members to return to England, home, and beauty. The constant passing to and fro of the African steamers to a certain extent relieves the monotony. My informant had not once landed during his last five voyages. The strong sea-breeze had the effect of keeping away two abominations of the tropics—mosquitoes and sand-flies. The crews were up early, breakfasted at 7 A.M., dined at 1 P.M., and supped at 6 P.M., an excellent division of the day where work such as they had to perform had to be carried on.

Making only a short stay at Half Jack, we were, by 5 P.M., drawing near Grand Bassam River, the influence of which upon the sea was shown by the yellowish-brown discoloration of the water surrounding the steamer. The same uninteresting-looking sandy shore, fringe of mangroves skirting the lagoon, and primeval forest in the background, was everywhere apparent as we passed along, not six hundred yards from the shore, which we could not see very distinctly owing to a drizzling mist falling from a clouded sky. The hygrometer only read 75 and 76 deg. There was scarcely any wind except that created by the movement of the steamer through the air. As we proceeded, the screw stirred up the muddy bottom, thus marking the sea in our wake for a long distance. One of Mr. Swanzy's brigs, the *London*, was lying off Grand Bassam, a wretched-looking, low-lying place, with what appeared to be half-a-dozen tolerably well-built houses close to the shore. This settlement was occupied by the French in the reign of Louis XIV; afterwards abandoned, it was reoccupied in 1814, but is now no longer a military station, although still owing allegiance to the French Republic, its commandant, surgeon, and detachment of Tirailleurs Senegalais having been withdrawn in 1870. We could barely see the river and surf, the latter breaking over the bar as we steamed by through a heavy downpour of rain. Assimi, close by, is one of the regular Ashantee ports of trade, a road existing from Coomassie to Kinjabo, three miles inland.

The 11th of September rose as a cool, damp morning, after a previous night's heavy rain, at 7 A.M., the wet and dry bulbs only indicating 75 and 76 deg. under the awning at the moment we were passing the Bight of Chamah, the scene of the Commodore's recent not very pleasant adventures. We had steamed by Cape Three Points a little after midnight. Scarcely a ripple disturbed the waves at 9 A.M., the mercury rising to 76 and 78 deg., and one of those typical coast days between the wet and dry seasons commenced. A calm, cloudy, airless, sunless, disagreeable, muggy day, the atmosphere nearly upon the point of saturation, the lightest clothes felt burdensome, the least exertion causing a profuse perspiration, difficult and oppressive breathing. A haze hanging over the land, scarcely permitted a clear view of the fine old castle of El Milsa and Fort St. Jago on the hill in the background, as at 10 A.M. We were nearing Cape Coast Castle, which looked a confused ill-defined mass in the distance. In the background were the low conical hills, clothed in a bright green. The native town, with its flat and broken roofs, had a tumble-down appearance, not unlike a city recently bombarded. It was quite evident that the heavy rains had done much damage. The surf was breaking with violence upon the ledge of rocks upon which the castle stands; this last, when the mist cleared away, appeared as a long irregular whitish-grey building, about a mile distant from our anchorage, where we had arrived at 11 A.M., after a voyage of twenty-two days, performed afterwards by the *Sarmatian* in twelve and a half—4100 miles from home.

As noon approached, it became oppressively hot—92 deg. in the shade on deck. Our sensations were most distressing, as we gazed longingly on the beach, hoping that a change to there would be preferable, although such a *terra inhospita*. Below is the meteorological record since our departure from the Gambia on the 3rd September, completing that of our voyage.

	Wet Bulb.	Dry Bulb.	Remarks.
Sep. 3	80	81	7 A.M., in cabin at sea, port open.
	80	85	9 A.M., in shade on deck; very close; light breeze from S.W.
	82	89	3 P.M., watery, greenish-blue sky.
Sep. 4	78	81	7 A.M., in cabin, port open; small tornado at 3 A.M., with rain from N.E.
	77	80	9 A.M., in shade on deck.
	77	81	3 P.M. ,, ,,
Sep. 5	77	79	7 A.M., in cabin, port open; heavy rain during night from S.W.
	75	79	9 A.M., in shade on deck, off Sierra Leone; rain on hills.
	74	76	3 P.M., rain from S.W.
Sep. 6	78	81	7 A.M., in cabin, port open; raining all the morning.
	77	80	9 A.M., in shade on deck.
	79	85	3 P.M., cool sea-breeze.
Sep. 7	76	80	7 A.M., in cabin, port open; left Sierra Leone at 4.30 P.M. on evening previous.
	77	83	9 A.M., in shade in air; fine but clouded morning, light westerly wind.
	78	83	3 P.M., becoming sultry.
Sep. 8	76	79	7 A.M., in cabin, port open; opposite Cape Mesurado.
	76	79	9 A.M., in shade on deck; dull and clouded.
	78	83	3 P.M., few rain-clouds over the land.
Sep. 9	75	78	7 A.M., in cabin, port open; raining, cold, sky clouded, downpour during the night.
	76	78	9 A.M., in shade on deck; opposite Grand Cess.
	76	81	3 P.M., left Cape Palmas at 2 o'clock; westerly sea-breeze.
Sep. 10	75	78	7 A.M., in cabin, port open; rained during night; cool, chilly, clouded.
	75	78	9 A.M., in shade on deck, at Half Jack; warm, close.
	76	79	3 P.M., in shade on deck.
Sep. 11	75	77	7 A.M., in cabin, port open; rained at night; damp morning.
	76	78	9 A.M., in shade on deck; calm, clouded, haze over land.
	—	92	At noon, under awning; hot and oppressive.

At 2 P.M., we bade adieu to Commander French and our fellow-passengers, after, in spite of all drawbacks, a most agreeable voyage, the recollections of which will ever remain pleasant memorials of the past. Its incidents have been described minutely, in order to leave on record all the more prominent points of interest observable in

the voyage to Africa, from which it has been our good fortune to return, after much sickness, many adventures, and hairbreadth escapes. A few typographical errors have unfortunately crept in, which the indulgent reader will kindly overlook. As rough notes do not afford much scope for word-painting, those who have perused them must supply this great want in these, our jottings by the way.

ON A HANDY METHOD OF EXAMINING MORBID NERVOUS TISSUES MICROSCOPICALLY.

By J. BATTY TUKE, M.D., F.R.S.E., F.R.C.P.E.

THE great obstacle in the way of examining microscopically the tissues of subjects affected by disease of the nervous centres, has been the laborious nature of the work involved in preparing specimens, and in cutting, tinting, and setting up sections. The examination of fresh specimens of brain and cord has been urged by myself and others as an important part of a necropsy in such cases; but it must be confessed that the results obtained by squashing out small portions of nerve-tissue under a covering-glass have been in no small degree unsatisfactory, inasmuch as lesions of individual constituents have been extremely difficult of recognition; and further, in many cases, it has been found impossible to distinguish between morbid appearances and normal structures. This process has served to demonstrate fuscous degeneration of cells, and to suggest the presence of certain other abnormalities; yet an element of doubt must have often existed in the mind of the conscientious observer as to certain important points. But all doubt as to the actual nature of what one sees in fresh specimens can be obviated by adopting the following simple process.

Take a portion of nerve-tissue, about the size of a large pin's head, from a thoroughly defined locality, squash it out gently under a covering-glass on a slide, remove the covering-glass, and apply to the mass left on the slide a drop of "Judson's simple (aniline) magenta dye", diluted with eight drops of water; with a needle, mix the dye and the nerve-matter carefully, and cover the preparation with a clean covering-glass, again gently pressing it out to such an extent that light can pass through it. On submitting a specimen thus prepared to the microscope, it will be found that the cells, the nuclei of the neuroglia, and the blood-vessels, are beautifully tinted a deep crimson colour, leaving the other tissues almost unaffected. As far as my experience has gone, morbid products are also well brought into view, either by their ready absorption of the dye, as in the case of amyloid bodies, or by their refusal to take on the tint, as in the case of colloid bodies. Hæmatoidin accepts the colour all too readily, but the practised eye soon recognises its appearance. Pigmentary degeneration of cells is well shown, nucleus and nucleolus being thoroughly demonstrated; the poles can also be traced for long distances. A little practice will enable the observer to detect changes in the nuclei of the neuroglia, both as to their individual character and degree of proliferation. A specimen thus prepared presents many aspects more beautifully than can be obtained by the thinnest section I have been able to make; it can be viewed by the highest powers, and, moreover, an objection which has been raised by those who know little of the subject against prepared sections; viz., that the appearances presented by them may be the result of the "pickling" to which they have been subjected, is to a very great extent obviated.

Whilst this process affords a handy method of examining morbid nervous tissue, it can only be advanced as such; it does not supersede sections; for, of course, the nerve-elements are not shown *in situ*. In order to render a *post mortem* examination thoroughly satisfactory, the condition of the tissues must be studied in their relation one to the other; still, it is of no mean importance for the pathologist to be able to say definitely that the vesicular or nuclear elements of such and such a tract were demonstrated to be abnormal in kind or quantity. This can be done with considerable accuracy by the "handy process". In two hours, the pathologist can go over all the parts of a brain and cord, and, if he have any experience of the examination of nervous tissue by the section-process, and know his anatomy with an ordinary degree of accuracy, he can arrive at results of an important nature in a short time. But, if he desire to make assurance doubly sure, or to substantiate a theory as to the absolute nature of a case, he must prosecute his inquiries till he can view the lesions *in situ*, which, of course, entails microscopic sections. I may here remark *en parenthèse* that the most satisfactory results which I have been able to obtain in section-cutting have been by following Betz's method (*vide Journal of Mental Science*, October 1873, p. 465). I have not yet made any experiments as to the best method of permanently preserving fresh specimens prepared by this handy method; but I believe that careful manipulation will enable them to be set up in glycerine. It is more than probable that this process will be found useful in the examination of other morbid tissues.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF ACUTE AND CHRONIC BRONCHITIS AND ASTHMA.

PERHAPS the following few words upon the treatment of the above distressing maladies, especially of the two latter, may prove interesting.

I have tried iodide of potassium in over a hundred cases, with almost invariable success; in fact, with such success, that patients have expressed themselves by saying, "It has acted like a charm"; others have said that no medicine ever had any real effect upon their complaint before. Iodide of potassium has a marked effect upon the breathing, reducing the frequency of the respirations, perhaps (as I think) overcoming spasms. Almost after the first dose, patients have stated they have felt the medicine touch their complaint.

I usually prescribe it with carbonate of ammonia, and, when the cough is very troublesome, add tincture of belladonna and ipecacuanha wine. In the above complaints I rarely give anything else but the above.

In one case of very severe broncho-pneumonia I tried iodide of potassium, with tincture of hyoscyamus and ammonia, and the respirations were quickly and astonishingly reduced from forty in a minute to less than half that number.

In conclusion, I should add that I have purposely given a mixture containing ammonia, belladonna, ipecacuanha wine, spirit of sulphuric ether, etc., without iodide of potassium, and have not found much benefit; after which I have added iodide of potassium, and found the patient relieved almost at once.

I have given this remedy about one year's trial, and can confidently recommend iodide of potassium as the remedy in these troublesome complaints.

WM. HY. SPURGIN, M.R.C.S.Ed., L.S.A.,
Resident Medical Officer to York Dispensary.

HYPODERMIC INJECTION OF ERGOTIN IN PURPURA HÆMORRHAGICA.

THE following are the brief notes of a new and successful method of treating purpura hæmorrhagica. This case was, however, a complication of typhoid fever, consequently a case of even graver prognosis than an uncomplicated one of purpura hæmorrhagica. Miss M., aged 16, was attacked with typhoid fever, under which she was progressing favourably, when, on February 15th, three weeks from the commencement of the fever, the patient had a severe attack of epistaxis, which recurred each successive time with greater severity. Forty-eight hours from the first attack of bleeding from the nose, several purpuric spots appeared all over the body simultaneously, and hæmoptysis, hæmatemesis, and hæmaturia set in. The patient took every kind of styptic, notwithstanding the hæmorrhages increased most alarmingly, so much so that she had several attacks of syncope. Seeing her case now quite hopeless, and finding that I had ineffectually used every kind of astringent recommended by various authorities for purpura hæmorrhagica, such as turpentine, gallic acid, aromatic sulphuric acid, etc., I resolved, as a last resource, to give hypodermic injection of ergotin a trial. I had previously found it very useful in hæmoptysis and hæmatemesis. Having also considered purpura hæmorrhagica a disease of the capillaries, and not a malady the result of a deficient amount of fibrine in the blood, for the blood of purpuric patients coagulates as firmly as that of healthy individuals, and knowing that ergot always causes contraction of involuntary muscular fibres, I hoped that in this case, by its contracting the involuntary muscular fibres of the minute arteries, I should prevent any more hæmorrhage by lessening the flow of blood to the capillaries. I injected hypodermically one grain of the liquid extract of ergot at a time. After the first injection, the hæmorrhage from the nose, the stomach, the bowels, and the bladder diminished greatly, while fewer new purpuric spots appeared on the body. The second injection completely arrested the hæmorrhage. The patient being nourished and stimulated freely, her strength rallied, the fever came to a crisis a few days afterwards, and she made a perfect recovery.

This case is of interest in this respect, that it is the first time, as far as I am aware, that ergot has been used hypodermically for purpura hæmorrhagica, and its employment has been followed by success.

WM. L. LANE, M.B., Dunfermline.

OBSTETRIC MEMORANDA.

ERYSIPELAS DURING THE PUERPERAL CONDITION.

The following case of confinement coming on during an attack of erysipelas, which occurred in my practice a few months ago, taken together with Dr. Reid's case, published in the Journal of May 16th, will help to prove that the presence of the erysipelatous poison in the blood during the puerperal state is by no means necessarily fatal to life, or even to as good a recovery as in any ordinary case of confinement in a healthy patient.

I was called about 2 P.M. on January 23rd, 1874, to Mrs. B. I found the whole of the left side of the face severely affected with erysipelas, which had commenced on the previous day, accompanied by all the pyrexial conditions usual to such a case. She informed me she was about two or three weeks off the expected period of her confinement, but that she had slight pains all the morning. Upon examination, I found the os uteri dilated to the size of a crown-piece, and the head in the first position. In two hours, she was delivered of a living healthy child. About a month previous to the above date, I had been in attendance upon all the children in the family on account of scarlet fever of a very severe type; and the moment I saw the nature of her case, I gave a very unfavourable prognosis to her husband.

I painted the face with a solution of nitrate of silver (one drachm to the ounce), and gave her muriated tincture of iron. From the period of her delivery, the erysipelas of the face gradually subsided, and my patient made a most satisfactory and, I may add (to me), a very unexpected recovery. The lochial discharge continued healthy throughout her convalescence.

From my experience with this case, I was forced to the conclusion that the presence of idiopathic erysipelas in a patient during the period of labour did not necessarily entail an attack of puerperal fever afterwards.

It appears to me that in those cases of confinement where the system is previously infected with a zymotic poison (whether this poison be that of erysipelas, scarlet fever, typhoid, or any other fever), another factor is required for the development of those symptoms which are naturally dreaded as the worst forms of puerperal fever. In my opinion, this additional factor is to be found in the decomposition of a retained clot, of a shred of membrane, or of the lochial discharge itself, and the absorption into the system, at the placental or any abraded surface of the uterus, of the products of this decomposition. When this takes place, there are then two poisons in the blood at the same time, and the most disastrous results speedily follow. This additional infection is all the more likely to occur when a specific zymotic poison already holds possession of the blood, vitiating and rendering unhealthy, and thus more liable to rapid decay, all the secretions and discharges from the body.

In this manner, I think, an explanation may be found of the very serious consequences usually resulting from a puerperal woman being brought under the influence of any zymotic poison; and I am inclined to think the contagion of any zymotic poison carried by the finger or clothes of an accoucheur to such a case will act in this double manner, viz., by introducing the specific poison to the blood through the veins or lymphatics of the uterus, and also by tainting the discharges of the patients, thus giving rise to a double form of septicæmia.

Wm. Stewart, L.R.C.P., L.R.C.S.Ed.,
Highfield House, Barnsley.

CLINICAL MEMORANDA.

RAPID CASE OF (SUPPOSED) LEUCOCYTHÆMIA.

A little boy, two years and a half old, always delicate, began three weeks before I saw him to have a swelling of the cervical glands, which remained enlarged. At the same time the child began to droop in health, to become pale, to lose his appetite, and to decline rapidly in strength. He also frequently put his hand across his stomach, as if in pain. The bowels became disordered; the secretions being without bile, and charged with mucus. From the commencement of his illness he became rapidly worse. He was all over of a pearly white, was fretful, irritable, and restless. He took scarcely any food. On examining the abdomen, the liver was found to be enlarged; there was also enlargement of the spleen; the abdomen was not otherwise tumid. There was some suspicion of dulness at the apex of the left lung; but the chief thing noticeable was the child's white colour. He died within a month after being taken ill.

Edward Wells, M.D., Reading.

THE FUNCTION OF THE UVULA.

Looking, to-day, into the pharynx of a patient suffering from a severe nasal catarrh, I saw the watery secretions from the back of the nose pouring down in a continuous stream from the tip of the uvula on to the dorsum of the tongue. It was evident that they were collected to this point from all the surrounding parts, and that the uvula acted as a conduit to bring them to the front of the epiglottis, whence they might be safely carried down the throat by repeated acts of deglutition; whereas, had it not been for the uvula, they would be liable to drip behind the epiglottis, and thus cause constant discomfort by getting into the larynx. This very simple but important function of the uvula has not, so far as I am aware, been noticed before, notwithstanding all that has been written about this odd little organ.

Horace Dobell, M.D.,
Senior Physician to the Royal Hospital for Diseases of the Chest.

REVIEWS AND NOTICES.

The Period of Infection in Epidemic Disease. By William Squire, M.D. J. and A. Churchill. London: 1874.

To most medical men engaged in the active duties of their profession, two questions connected with the management of cases of infectious diseases constantly present themselves. The one is: Supposing that a person has been exposed to the risk of infection with one or other of these disorders, what length of time must elapse before it may be said that he has escaped such risk? The other is: In the case of a patient who has not escaped, how long may the risk of his infecting others continue? To these questions might be added a third; viz.: In the latter case, how soon does the risk of infection begin? For, although the last question does not often present itself to the mind of the practitioner, it is to be feared that this is rather because he has an indistinct kind of belief that infection begins with the development of the characteristic signs of the disease, whatever it may be, than because there is an actual foundation in fact for such belief. The great practical importance of these questions is self-evident; but it is unfortunately too true that, as regards the majority of the disorders of the class referred to, our information respecting them is far from being so accurate as is to be wished for. Dr. Squire, in this essay, contributes his quota to the supply of this information. With this end in view, he gives a carefully kept outline of the history of numerous cases of the more prevalent epidemic diseases which had fallen under his notice, and directs attention to the inferences which may be drawn from their study. The amount of consideration which is bestowed on the various diseases is unequal; measles, roseola, and whooping-cough being treated at considerable length, while typhus, typhoid, cholera, etc., are so meagrely dealt with, that we think they should have been altogether omitted from the plan of the essay. From the length of their period of incubation, epidemic disorders are divided into two classes: those in which this period is prolonged, and those in which it is short. Measles may be looked upon as a type of the former, and scarlatina of the latter. The principal points sought to be established are the limits of the duration of the period of incubation, the infective character of this period, and the duration of the period of infection. Regarding the first point, we scarcely think that Dr. Squire has added much to our information. It is well known, for instance, that measles may remain dormant for a period varying from about one to three weeks after infection; that, in scarlet fever, this period may vary from a few hours to about a week; that the same may be said of diphtheria, and so on. Out of the fifty-four cases of measles which are related in the essay before us, in one the incubation-period is said to have been only eight days, while in another it is said to have reached eighteen days. This information is, to a certain extent, confirmatory of previous experience; and it is just possible that more extended observation on the part of the author may furnish him with a case of only seven days' interval and another of three weeks. We agree with the author in thinking that this variability is due to several causes: the mode in which the poison is introduced into the system, its amount and intensity, and possibly also, we think, to individual peculiarities.

Some of the cases show very well how erroneous is a prevalent idea that communication of diseases from the sick to the healthy cannot take place until its characteristics are developed. Case 23 of measles may be quoted in illustration.

"On March 2nd, 1868, a boy at a day-school is confined to his class-room, because he was dull at his lessons; next day, he is too ill to come at all, and the day after has measles. On March 12th, several boys who met in this class-room were away from school ill; they had the rash of measles from the 14th to the 16th of March."

There is little doubt that whooping-cough also may be communicated before the whoop has been heard. Such being the case, an explanation is afforded of one difficulty in controlling the spread of these affections, particularly of those in which some days elapse before they can be recognised.

As regards the duration of the period of infection, which is a point of the highest practical importance, the difficulties attached to its elucidation are very great. We had hoped, however, to find in Dr. Squire's essay that the question would be discussed at some length, and some presumptive evidence at least given in respect to it. In this, however, we were disappointed, such remarks as are made on the subject being, for the most part, incidental, and not deduced from the history of recorded cases. The most important observation on the subject is the following, which may be usefully quoted here.

"A long incubation-period is generally followed by a very definite illness terminating in a crisis, and, excepting debility, with sequelæ neither very prolonged nor very definite; the infection ceasing at a comparatively early period of convalescence. A short incubation-period commences a sudden morbid disturbance, having either a long or a short process, very liable to relapses and to prolonged or definite sequelæ, infection persisting far into convalescence. It follows that infection is spread most at the end of these diseases, with a short incubation, generally from impatience of their last lingering effects; and, at the earlier, or even the earliest, part of those, from disregard of their premonitory symptoms."

These remarks will, in the main, be assented to; but we repeat that it is of great importance that we should have more precise information on this point than has yet been obtainable. It is, for example, often a very puzzling question to decide when it becomes safe for a child who has had measles or scarlatina to associate with the rest of the family. Is it really necessary to maintain seclusion until peeling is far advanced in the one case, or for three weeks in the other? We suppose that, as with the period of incubation, this also varies within considerable limit in each disease; but we question much whether it really is the case that, in any disease, the infective material continues to be generated for any considerable time after defervescence is completed. So many disturbing questions generally interfere with such observations as might tend to elucidate the matter, that a very extended inquiry would be necessary to afford reliable information.

In several places, we have noted remarks by Dr. Squire which are certainly open to criticism. In the introduction, for instance, he states that "measles is more common in winter and spring, because the pulmonary mucous membrane is then more susceptible". We might suppose that this would be a cause of greater fatality from measles during the cold than the warm months, but cannot admit it to be a reason why the disease itself should be more prevalent. As a matter of fact, we doubt whether it is more prevalent during the colder months. For example, we find that in the published "disease-returns" of the Manchester and Salford Sanitary Association for the ten years ending 1872, the numbers of new cases of measles observed in public practice were as follows, for the four quarters respectively—March, 1,841; June, 2,626; September, 1,326; December, 1443.

Again, in the next paragraph, we find: "Little doubt can remain, after seeing how exactly the diarrhœa of our later summer months is replaced in the winter by cough and catarrh, and noticing how, by almost imperceptible gradations, they pass into each other, that the same poison is operative in both cases." We think it exceedingly improbable that, in either case, a poison enters into the question at all.

Again, on page 36, the opinion is expressed that true scarlatina may be given by a person who, having previously had the disease, is suffering from the sore-throat often experienced by those attending upon cases of scarlet fever, and an instance is quoted. On the same page also are quoted two cases of scarlatina lying dormant in the system for two months, and becoming operative on receipt of an injury. It is exceedingly difficult to believe that some error does not exist in reference to such assertions. In the first case, for instance, why should not the nurse have carried home the infection on her clothes? In the second, we should suppose that the young midshipman, having received a wound of the foot, had his portmanteau ransacked for dressing materials, and turned out some clothes which he wore at Southsea, where the disease was prevalent. And, in the third, was there no possibility of the girl having come into contact with scarlatina between the time when it had been in her master's house and the development of her own illness? Disturbing influences such as these are always to be thought of, and must make us very guarded in drawing conclusions from observations of the kind which Dr. Squire has undertaken. Still we consider the pamphlet contains a great deal of valuable and interesting information, and we should be glad to see Dr. Squire continue and extend his inquiries.

ON THE PAST PROGRESS AND THE PRESENT ASPECTS OF MEDICINE IN RELATION CHIEFLY TO THERAPEUTICS. An Address delivered before the North of Scotland Medical Association, July 25th, 1874. By ALEXANDER HARVEY, M.D., President (retiring) of the Association; Professor of Materia Medica in the University of Aberdeen; Consulting Physician to the Aberdeen Royal Infirmary, etc. Aberdeen: 1874.

IN this address, Professor HARVEY reviews the progress of science during the past century, and the present condition of the art of medicine as influenced by that progress. The theme is a somewhat worn one; and it must, we think, for some time to come, tax the ingenuity of any one called upon to deliver an address of this kind to say something new, or even to put his facts in an attractive dress. Dr. Harvey may fairly assert that he has faced and overcome this difficulty.

In discussing the advances made in every branch of science during the past century, he maintains that chemistry has most contributed to this progress; and he remarks, by the way, that all that mankind owes to this special science and its developments, it owes mainly to members of our profession, who for long were the sole cultivators and teachers of it.

Tracing the progress of medicine proper, Dr. Harvey starts from the times of Cullen and John Hunter, and he is of opinion that more is owed to the former than is at all generally recognised or admitted. He thinks it is "at least an open question whether we are not indirectly beholden to him for the steam-engine, and all that the steam-engine has brought us. For, while Watt caught the inspiration of it from Black, whose pupil and assistant he was, Black was taught his chemistry at Glasgow by Cullen; and Cullen it was who turned the thoughts of Black to the subject of 'latent heat'." He believes, as many have done during the last quarter of the century, that Cullen retarded the progress of medicine by his *Nosology*, which led his successors to regard diseases as positive entities.

Discussing the later progress of our art, and awarding to Charles Bell, Mayo, Marshall Hall, Baillie, Graves, Abercrombie, and others, their due measure of credit for their labours, Dr. Harvey claims for London, since 1840, the palm for most advancement, and apparently forgets the work done in the Edinburgh School during that period. We shall find presently that this is not exactly his meaning, albeit he writes as if Sir Thomas Watson had picked up the mantle of their common teacher—Alison—and had forthwith opened a new era for physic in the great metropolis. He regards Watson, at all events, as the exponent of Alison, and observes—"What if we are indebted for Watson's inimitable lectures to Alison's comprehensive and philosophic outlines, and his class-teaching?" What, indeed? we repeat. We think we find something more than an exposition of Alison's views in the writings of Watson, if it be only in the record of, and the deductions from, his own large clinical experience.

Dr. Harvey defines diseases as "merely modifications of sound states of the living organism", and proceeds to show how modern therapeutics are adapted to this view. With his teaching, or rather with M. Gubler's doctrines, which he quotes and endorses, as to the action of drugs, we cannot in all instances agree. The Parisian professor of therapeutics affirms that the physiological action of drugs is the same in disease as in health. We do not believe that we are yet in a position to maintain this, and we prefer the following teaching of Dr. Barclay (see BRITISH MEDICAL JOURNAL, January 14th, 1871, page 49), who remarks that "the *therapeutical action* of remedies is never seen *except in disease;* the *physiological*, or, in other words, the poisonous action is more or less traceable to every case, *whether of health or sickness*, in which a large dose of the remedy is administered. Yet this, too, is modified by disease". We believe that there is still, in the best practice of physic, a large amount of empiricism, and that we must still continue to speak of the "therapeutic action of a drug"; but let us not be misunderstood: we should be the last, notwithstanding this view, to decry any search for a physiological basis for our doctrines of healing.

In his conclusion, Dr. Harvey is compelled to allow that the Edinburgh school has not been idle since 1840, and he rightly enough credits the labours of Christison, Bennett, and Simpson. But, while mentioning these, he has omitted to notice the names of Syme and Goodsir, whose works will never be forgotten so long as medicine has a following.

We confess that we are not particularly enamoured of the writer's literary style, which has somewhat of the fatal fluency of pulpit oratory; but we cannot hesitate to affirm that such teaching as Dr. Harvey's is eminently wholesome, and is as characteristic as it is worthy of the Aberdeen professoriate. We could, indeed, expect no less luminous an emanation from one of the "northern lights".

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 5TH, 1874.

THE ANNUAL MEETING AND ITS CRITICS.

THE annual meeting of 1874 has not more than its predecessors been exempt from criticism. For the most part, these have been conceived in no unfriendly or undiscriminating spirit; and, even where they are captious, and due either to evident negligence or a desire to find fault, it is lawful to learn from them.

All are agreed that our warmest thanks are due to the hospitality, energy, and good feeling shown by the profession at Norwich, and by the friendly and liberal citizens who came forward in their public and private capacity to welcome the British Medical Association on the occasion of its second visit to the ancient city. The meeting was an excellent instance of what the annual meetings of the Association in its present stage of vigorous development may be expected to be, when no special adventitious aids of peculiar local attraction tend to swell the numbers to an unprecedented degree, and to give peculiar and accidental splendour to the festivities. The selection of London as the seat of meeting last year, and the presence of the Prime Minister at the banquet, tended to make last year's anniversary a star meeting; and probably the invitation which the Association has received to meet next year in the modern Athens may give peculiar lustre to the meeting of 1875. But the meeting at Norwich certainly loses nothing in solid merit and professional attraction when compared with that of the previous year; and the feeling of gratitude to those who so successfully organised it will long remain fresh in the minds of those who were present.

The reports which have appeared, and which we are now publishing, show how much really sound work was done in the Sections and at the general meetings, as well as how admirably the time was filled which was allotted for pleasure. Our critics, however—to whom we are thankful—point to some blots which are in the main common to all meetings, and which we incline to think are capable of being removed.

It is suggested that more definite practical effect should be given to the rules which guide the business of the Sections, and all suggestions of this sort are of undoubted interest. One of our contemporaries, the *Lancet*, very gently points out that the work done in the Sections is of great importance to the scientific reputation and usefulness of the Association, and desires that they should be developed. As a singular comment on the amount of interest which it really takes in the Sections, it does not devote a single page to the report of the sectional work; and even the *Medical Times*, which shows also a very friendly interest in the meeting, gives the most imperfect, partial, and valueless report of the Sections. Indeed, if the readers of the strictures of those journals on the sectional work in those papers take their opinion of what was done from the reports presented in those papers, they will arrive at the conclusion that nothing at all was done.

Reviewing the actual facts, and turning to the reports which we are now publishing, it will be seen that, although meeting practically for only two and a half days, the members of the British Medical Association contrived, by virtue of the subdivision of sections, and of economy of time, not only to listen to three general addresses, four sectional addresses, and the elaborate reports of five committees, with other business, such as amending and approving detailed Articles of Association, but also to read and discuss as many papers as the Royal Medical and Chirurgical Society of London reads and discusses in twelve months. We have already published all the addresses and general proceedings; the proceedings of sections are being issued in abstract with dispatch and the more important papers read will further appear *in extenso* in rapid succession. Of the general result of the arrangements, and of the scientific outcome of the meeting, it does not therefore appear that there is much room to complain. It remains to be considered, however, how far the work of the sections can be weeded, condensed, and rearranged with profit; and in these respects we think that, by adhering to limits of time, and by conference of the secretaries prior to the meeting, something further may yet be done. The suggestions of Dr. Ross especially may be worthy of consideration. Meantime, we may gently suggest to our critics that, if their reporters were to attend the sections, they would find there quite an unexpected mine of wealth. We are always happy to furnish copies of the abstracts of the papers read.

In one or two other respects the arrangements have been criticised. It is suggested that the President of Council should be more accessible, and should fix an hour on each day on which he could officially receive any members who desire to see him. The President of Council is always hardly worked during these meetings; but the suggestion is one which, if it represent any real want, is worth considering. It is further hinted that the official heads of the Association might with advantage receive the members on the occasion of the public *soirée* and the public dinner. We imagine that they do so; or if by chance they are absent from their post, it is by accident. These small matters tend to make the annual gatherings more entirely acceptable and successful; and, for that reason, any suggestion of the kind, which bears a shadow of reason, we shall always gladly notice.

It will be seen that the criticisms which have been offered are not very searching or profound; but they are not, perhaps, the less noteworthy. The merits and pleasures of the anniversary are undoubted. Its faults are clearly not irremovable; and it is a very pleasant moral which is plainly deducible from the second Norwich meeting.

THE ACTION OF ANÆSTHETICS ON THE RED CORPUSCLES OF THE BLOOD.

IN an article on stasis and embolism of the blood-corpuscles, published in the *Deutsche Zeitschrift für Chirurgie*, Professor Hüter first refers to the changes which the red corpuscles of frog's blood, removed from the body, undergo on the application of various physical and chemical agents, such as glycerine, ammonia, carbolic acid, chloroform, cold, and heat. These changes, which vary in degree, but are essentially the same in character, consist in notchings and angular irregularities of the corpuscles, often reaching as far as the centre; folding together of the membrane of the corpuscles like a paper envelope; rounded forms are also observed; and sometimes there is nothing left but a nuclear structure, consisting, like the white corpuscles, of fine granules, and distinguishable from the white corpuscles only by its small size and frequently by its oval form. When the above-mentioned agents are applied to the frog's mesentery, this becomes reddened, and microscopic examination shows that the redness depends on dilatation of the vessels combined with a complete stasis of the corpuscles. The idea that this appearance can be explained by the action of the reagents on the walls of the vessels, is contradicted by the rapid occurrence and equally rapid disappearance of the stasis; the phenomenon is rather to be explained by the purely mechanical action of the changes induced in the red corpuscles by means of the various agents, even when applied to the epidermis. Under the microscope, the corpuscles can be observed to become indented; first one, and then another, remains hanging on to the wall of the vessel, until at last all the capillaries in the irritated region, and even the adjacent small arteries and veins, are filled with notched red corpuscles (globular stasis). Both during the existence of the stasis, and especially during its rapid breaking up, single altered corpuscles, or large masses of them, may pass into the circulation, and, adhering to the walls of the vessels in other organs, again produce a stasis (globular embolism). This embolism does not lead to the form of distinct embolic plugs, but to diffuse multiplication of stases of corpuscles through the whole circulatory system; for the masses of corpuscles which pass into the circulation readily break up on meeting with any obstacle. The occurrence of embolism from blood-corpuscles in parts where certainly no change in the vessels has occurred, gives a certain degree of support to the assertion that the cause of globular stasis is to be sought in the change of condition of the red corpuscles.

In a pathological point of view, Hüter attributes great importance to stasis of the corpuscles. He believes, in the first place, that irritants act essentially by producing stasis in the region to which they are applied; and that thus the inflammation induced by such means cannot be used in the explanation of the complicated phenomena of ordinary inflammations.

He maintains, further, that these researches are of great importance as regards pharmacology and toxicology. It is already known that many poisons, even those which do not act directly as blood-poisons, produce changes in the blood-corpuscles; and hence it may be supposed that they first produce changes in the form of the corpuscles, then globular stasis, and thus mechanically and indirectly lead to further changes. In experiments on frogs, it was very remarkable that all the agents which induced globular stasis, also acted as anæsthetics; this is attributed by Hüter to the formation of embola of red corpuscles in the brain. In this way he explains the action of anæsthetics, such as chloroform, ether, and alcohol, the anæsthetic power of which is in proportion to the amount of change of form which they are capable of producing in the red corpuscles. The corpuscles of chloroformed rabbits showed very irregular forms; a notched contour, frequently with one or two large club-shaped processes. After anæsthesia with ether, the corpuscles were mulberry-shaped. After alcohol, there were only very slight indentations; and these could be observed in the stage following intoxication both in rabbits and in man. It follows from these observations that the administration of chloroform by inhalation is bad, as in this way the blood-corpuscles are altered while in the lungs, and globular stasis may be produced in these organs. Frogs can be brought into a state of anæsthesia by the action of chloroform-vapour on the skin of the thigh, while at the same time the part where the application is made assumes a redness which cannot be removed by pressure; and the blood-corpuscles removed from this part show the same changes (club-shaped processes, etc.) as in rabbits. This condition is present in the so-called chloroform-erythema which is often observed, especially in tender-skinned individuals. The beneficial action of lowering the head and raising the legs in cases of apparent death from chloroform, may be explained by the more easy breaking up of the globular stasis in this position, as the following experiment shows. The tongue and web of the foot of a chloroformed frog are spread out on a glass plate. If the animal be held for some time with the head upwards, extensive globular stasis will be observed in the vessels of the tongue, while the process is only beginning in the web; when the position is reversed, stasis sets in at once in the web of the foot, and disappears from the tongue. Does the weight of the blood in the most dependent parts aid the slightly adherent corpuscles to pass through the vessels? In any case, it seems clear that chloroform is a very dangerous agent in consequence of its strong action on the blood-corpuscles, and that therefore ether, the action of which is less powerful, is to be preferred as an anæsthetic.

If Hüter's explanation of the cause of the anæsthetic action of the substances mentioned be correct, nearly everything which produces globular stasis must also be capable of producing anæsthesia by the formation of globular embolism in the brain; and thus it would seem that even warm baths, perhaps with the addition of easily diffusible agents, might be also used to produce anæsthesia. A frog was immersed for twenty minutes in a five per cent. solution of common salt at the temperature of the room, and was anæsthetised, with the production of globular stasis over the whole skin.

The researches referred to are also of practical value with regard to the use of carbolic acid. It appears that the application of this is proper only in the first stages of the treatment of wounds. After the formation of granulations has taken place, it produces permanent stasis of the corpuscles in their vessels, and thus hinders the growth of the granulations as well as the formation of epidermis.

IT is proposed to perpetuate the memory of the late Dr. Bhau Dajee of Bombay by the establishment of a hospital for lepers in that city.

THE library of the Obstetrical Society will be closed from the 7th to the 19th of September, both days inclusive.

DR. JOHN DOUGALL will read a paper on the Science of Disinfection at the Social Science Congress, which meets at Glasgow in October next.

DR. ALLEYNE NICHOLSON has been appointed to the Chair of Biology and Physiology in the Durham University College of Medicine and Physical Science, at Newcastle-on-Tyne.

IT is announced that Mr. James Lewis has been promoted to an inspectorship, for the purposes of the Acts relating to the registration of births, deaths, and marriages in England. Mr. Lewis is well known in our Association, and among medical men generally interested in public medicine and the advancement of the public health, by his intelligent and independent aid.

THE Trustees of the Cholmondeley Charities have made a second grant of £25 in aid of the Royal National Hospital for Consumption at Ventnor. Of the separate houses or hospitals of which this institution is intended to consist, all have been built or are in course of erection but two. The Committee, in a recent report, state that the applications are much in excess of the present accommodation. Funds are needed to furnish some of the houses and to clear off a large building debt on the chapel.

OVERWORKED NURSES.

IT is contemplated to establish a home of temporary rest at Harrow for the benefit of trained nurses who are suffering from the effects of overwork. It is not intended to be in any sense a hospital, but a means of rest and recreation for nurses whose health has broken down. It will to a certain extent be self-supporting, as a sum of seven shillings a week will be required of each inmate for maintenance; but the power of modifying this rate in exceptional circumstances will be reserved. Subscriptions in furtherance of these objects will be received by Miss Catherine Whitehead, Harrow.

INSANITY IN FRANCE.

DR. LUNIER, Inspector-General of the French Lunacy Department, has recently published the results he has obtained from a careful study of all the statistical documents he has been able to collect on insanity in France during the years from 1869 to 1872. He has arrived at the conclusion that although, during that trying period for Frenchmen, from 13,000 to 14,000 cases of mental disease were registered, yet the number of patients confined in private lunatic asylums was much below the usual average. A similar fact was observed in 1848, which, taken in connection with the state of things observed by Dr. Lunier, would make it appear that political or social crises, instead of, as is generally imagined, augmenting the number of insane persons, really diminishes it.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THE annual report of this excellent Association, which comprises the leading nobility, clergy, gentry, medical, and professional men of the borough, has just been issued, and it affords an excellent model for similar local associations which might at the present moment with great advantage be multiplied. It contains a summary of the work done during the past year, and specifies the objects which the members have set themselves to accomplish during the ensuing one. An institution of this kind in a town is somewhat a novelty. It would be well if it were otherwise, so that every borough of any pretensions should have its association of gentlemen who would join together for the health of their town, and work in harmony with the local authorities. The following two resolutions, which were proposed and carried at the last annual meeting, fully define the scope and object of the Association.

"That, inasmuch as one of the fundamental objects of the Association is the prevention of disease, this meeting trusts that the Committee will use every means in their power to secure all possible precautions being taken to prevent the spread of infectious disorders."

"That the practical efforts of the Committee to improve the condition of the poorer classes by directing attention to the sanitary laws, deserve the encouragement and pecuniary support of this meeting and the public in general."

In pursuance of this programme, a series of eight valuable lectures on health and sanitation generally were delivered during the past year by gentlemen who were authorities in their respective departments. The Committee hope in future to be enabled to extend sanitary knowledge more fully amongst the working classes by lectures, tracts, and other means of instruction. They have also appointed a subcommittee to collect facts bearing on the extent of pollution of the atmosphere in the town by chemical and other works, in order that the Association may take such steps as may lead to improved legislation and promote a purer condition of the air of large towns. The conduct of sanitary legislation generally, and especially the effects of recent enactments, and the provision of proper cottage-dwellings, and the sanitary conditions of manufactories of all kinds, require much attention; and the Committee hope that, by investigating these subjects in conjunction with the officers of health in and around Manchester, they may be able in time to show forth to the satisfaction of the public the best way of dealing with them. In this hope we cordially join.

YELLOW FEVER IN BRAZIL.

THE officers at the various ports appointed to examine vessels in respect of quarantine have received intimation from the Privy Council that yellow fever is at present epidemic in the port of Fortaleiza, Brazil. Pernambuco and North Parahyba are also suspected of being infected. Vessels arriving from these ports are, therefore, to be subjected to strict quarantine inspection.

TESTIMONIAL TO A MEDICAL MAN.

A NUMBER of gentlemen met together at the St. John's Gate, Clerkenwell, for the purpose of presenting a testimonial to Dr. Thomas S. Barringer of St. John Street, on the occasion of his retirement from practice, after thirty years' hard work in the parish. Some laudatory verses, composed by Mr. S. Rushton, organist, were sung on the occasion.

THE HEALTH OF TOTTENHAM.

THE quarterly return of deaths made by Dr. Watson, medical officer of that district, compares very favourably with the previous returns, and is in marked contrast to that of the same period for last year. Dr. Watson attributes the great improvement to the activity which has been shown in the ventilation of sewers and cutting off of doubtful water-supplies; and, as these and other sanitary works are being pushed forward vigorously, doubtless the health-standard will still continue to improve.

SMALL-POX AT NEWMARKET.

SMALL-POX has, through the praiseworthy exertions of the local authorities and the kindness of the Jockey Club in giving up the Grand Stand as a hospital, been entirely stamped out at Newmarket. It is now nearly a fortnight since the last case, a mild one, was removed; and all the afflicted, both from the town and union, are in the hospital. Active measures have been taken by the Board of Health and Mr. Lamb, sanitary inspector, to purify the infected quarters; the houses of the sick have been whitewashed; the papering of the rooms has been removed; bedding and clothing have been destroyed or disinfected. The union workhouse is quite free from the disease, and has been rendered pure by disinfectants. At the hospital, the cases are fast approaching convalescence, only three or four patients being confined to their beds. The majority are to be seen outside the hospital, waiting for the doctor's certificate for them to return home. The Local Government Board have directed Dr. Airy and Mr. Courtenay Boyle to hold an official inquiry at Newmarket into matters connected with the recent outbreak.

CORONERS AND THE MANCHESTER WATCH COMMITTEE.

THE report of the Manchester Watch Committee to be presented at the next meeting of the City Council in reference to the duties of coroner, states that the coroner holds inquests in all cases of sudden death reported to him; that in Liverpool a different course is pursued, whereby it is estimated that during the past ten years upwards of £14,500 was saved to the borough; that in Manchester in the years 1864 to 1873 inquests were held in 3,505 cases in which the jury found that the parties had died from "natural causes", and the committee "doubt not that the preliminary inquiry which the law contemplates, either on the part of the police or the coroner, would, if instituted, have shown that in many of such cases no inquest was required"; that it is clear that "sudden death" does not, as a matter of course, justify an inquest, and that it is "the duty of the police in all cases of sudden death which may be reported, immediately to institute such inquiries as may be necessary to ascertain the circumstances of the death, and whether there was any reasonable ground of suspicion that the party came to his death by violent or unnatural means; further, that the police should either inform the coroner only of deaths found to have taken place under suspicious circumstances, or in cases where no suspicion of any kind appears to exist, that they should, with the information of the death, if sent, communicate the evidence obtained, which, in the opinion of the police, may show that any interference on the part of the coroner is not required".

HYDROPHOBIA.

IN reference to the recent death of Mr. Watson from hydrophobia at Brighton, Mr. C. L. Prince writes to a contemporary to correct a misstatement. He says:

> "I do not presume to have my 'own nostrum', or any 'infallible cure' for hydrophobia. During the last thirty years I have been cognisant of twenty cases of persons who, having been bitten by mad dogs, took a certain medical preparation which acted as a prophylactic against hydrophobia, while others, who did not take it, were not so fortunate. I have given particulars of these cases in the BRITISH MEDICAL JOURNAL of October 19th, 1872. I will now state that I purchased the formula of this preparation for a considerable sum of money, a few months since, which formula, with all needful particulars, I made public to the profession in the above-mentioned JOURNAL of May 16th, 1874. It is, therefore, not a nostrum 'the very nature of which is kept secret'. With respect to my visit to Brighton to see the unfortunate Mr. Watson, its purport was to adopt a form of surgical treatment not hitherto attempted. In conclusion, I will merely state that I believe the medicine which I advocate to be the most valuable preventive to hydrophobia at present known, and that I am still sanguine enough to hope that a cure for hydrophobia may yet be discovered, and the greatest opprobrium to the medical profession removed."

THE SO-CALLED UNIVERSITY OF PHILADELPHIA.

THE notorious so-called University of Philadelphia (to be carefully distinguished from the old and respectable institution the University of Pennsylvania) has been this week brought under public notice in an inquest held at Nottingham, on the body of a woman named Ellis. A person named John Wilson, calling himself a "doctor of medicine of the University of Philadelphia", had prescribed green hellebore for her, under the idea that she was suffering from erysipelas of the face. As she became worse, Mr. Snell, surgeon, was called in, and found that there was little if any erysipelas, but that the patient was, in his opinion, suffering from delirium and congestion of the brain, arising from disease of the kidneys. He believed that the patient, if treated properly at first, might have recovered ; but he did not think that the hellebore had actually caused death. The coroner said that he regarded the case as one in which Mr. Wilson had prevented other and better advice from being procured, which might have saved the life of the woman. When Mr. Snell was called in, the woman was dying, but, if his assistance had been obtained sooner, the probability of her recovery would have been greater, and he thought it was to be regretted that Mr. Wilson stepped out of his line of business to give her aid. English laws might be different from American laws, because anyone who was put upon the *Medical Register* in England and was qualified to practise had to pass certain examinations, and the law was strict enough to say that a man could not recover his fees for attendance if he were not on the *Register*. In this instance, Mr. Wilson practised as a regular qualified man when he had not the necessary qualifications. It was to be regretted very much that he attended this case at all, and stepped out of his path as he did. The jury returned a verdict "that deceased died from disease of the kidneys, and the jury regret that proper medical advice was not obtained earlier". The coroner, addressing Mr. Wilson, said that he must be well aware that he had no right to visit the patient and practise as a medical man in England unless he had the proper qualifications. It was a serious matter, and, if persons died under his attendance, he (the Coroner) should feel it his duty to hold an inquest in every case.

CHARGE OF LIBELLING A MEDICAL MAN.

AT the Bridgwater police-court, on Aug. 31, Mr. Arthur G. Pain, solicitor, of Bridgwater, was charged with having unlawfully published certain defamatory libels concerning Mr. Charles Forbes Buchan, a medical man practising in that town. Some months ago, Mr. Buchan was charged by Mr. Pain with obtaining £200 from him under false pretences ; but at the assizes Mr. Justice Lush directed the jury to return a verdict of acquittal. Since then, the defendant has addressed letters to the complainant and his father, and to Dr. Baxter Langley, containing, it was alleged, libellous matter. One effect of these communications had been seriously to affect the health of the complainant's father, whose son had been referred to as a "lying thief", "depraved wretch", etc. The defendant was committed for trial at the next assizes, being admitted to bail in his own recognisances of £200, and two sureties of £100 each.

CONVALESCENT HOME FOR ORPHAN CHILDREN.

THE foundation of a Convalescent Home in connection with the Orphan Working School at Haverstock Hill was laid on August 29th, at Margate. The want of such an auxiliary to the Home has long been felt; as more than one-half the parents of these children had died from consumption, the orphans required special care. As the air of Margate had been found to be peculiarly beneficial, that fact determined the Committee in the selection of that town.

CONTAGIOUS DISEASES ACTS.

DR. SEPTIMUS GIBBON, the Medical Officer of Health for Holborn, in his annual report, speaking of the cases of congenital syphilis which terminated fatally, says :

"Syphilis and congenital syphilis have apparently decreased from 27 and 21 to 21 and 13 cases respectively. The deaths from congenital syphilis have apparently declined from 12 in the previous to 8 in the past year. I say *apparently*, because, owing to a defective registration, these figures do not represent more than a tithe of the deaths that have resulted from this cruel distemper which blights the health of families for many generations, and is especially destructive to the lives of young children. It is devoutly to be hoped that the Government may soon see its way to extend the Contagious Diseases Acts, which are now restricted to certain naval stations and garrison towns, to all populous cities. He expresses his regret that the defective system of death-registration is to be perpetuated by the registration measure of the last Parliament. It is provided that the certificates of the cause of death are still to be furnished and paid for by the relatives and friends of the deceased instead of by the State, which requires the information. The consequence will be that the returns will continue to be nothing like so exact and truthful as they might and ought to be. So long as the certificates of the cause of death pass through the hands, and are paid for by his patients, it will be impossible for the medical attendant, in cases of hereditary syphilis, and other diseases arising from vicious indulgences, to certify to the true causes of death ; and I know, as a matter of fact, that deaths which really arise from hereditary syphilis are, in order to spare the feelings of parents and friends from painful reflections, habitually certified to have arisen from some secondary disease or symptom, as bronchitis, hydrocephalus, convulsions, or atrophy. When insurance offices require correct information as to the state of a man's health they call upon his medical attendant to furnish them with a private and confidential report ; the same course ought to be adopted by the State when it requires a true return as to the cause of death. It ought to pay a small fee and receive the certificate direct from the doctor."

INFECTED PATIENTS IN PUBLIC CONVEYANCES.

EMILY BURGE, a monthly nurse, of High Street, Camden Town, was summoned before Mr. Barstow, at Clerkenwell, to answer the complaint of Inspector Taylor, N division, for having, on August 6th, "being the person in charge of one Mary Ann Robinson, a person suffering from a dangerous and infectious disease, did unlawfully expose her in a tramway car, without taking proper precautions against spreading the said disorder". The defendant was engaged as monthly nurse to Mrs. Collier, of the above address, during her confinement. Whilst she was so engaged, Mr. Collier's children were attacked with scarlet fever, and a day or two after that the general servant, Mary Ann Robinson, was attacked with the same disease, but, as the surgeon said, only slightly. Mr. Collier having no accommodation for the servant in his house during her illness, according to his statement, gave the defendant 2s., and told her to take the sick girl to the Fever Hospital in the Liverpool Road, Islington, in a cab. The day was very wet, and, though a cabman was asked, he refused to take them, and, in consequence, the defendant and the sick person got into a tram-car at the Red Cap, Camden Town, and proceeded to the Nag's Head at Holloway. There they got into another tram-car, and were conveyed to the Fever Hospital. When they alighted, the conductor, finding that one of his fare was suffering from scarlet fever, at once communicated with the police, and hence these proceedings. Inspector Taylor, N division, said that as soon as he heard that an infected person had ridden in a tram-car, he communicated with the manager of the North London Tramways, who at once had both cars shut up, taken off the line, and thoroughly disinfected. Mr. Barstow said that it was highly creditable to the manager of the Tramway Company that he had taken such speedy measures to check a serious evil. The defendant, in reply to the charge, said that she had only obeyed Mr. Collier's (her employer's) instructions, and that he told her, if she could not get a cab, she was to take the girl in the tram-car, and he gave her the money to do so. Mr. Barstow said he did not believe the defence set up. The case was clearly proved, and the defendant would have to pay a fine of 40s. and the costs, or in default one month's imprisonment in the House of Correction.

ST. GEORGE'S HOSPITAL.

THE alterations in connection with St. George's Hospital, which has been entirely closed since the 31st of May last, are now completed. The entire building has been thoroughly cleansed and repainted from basement to ceiling, the wards reorganised, and the walls stripped and repapered. The ranges in the culinary department, and also in the general offices of the hospital, have been removed, and new ones placed in their stead. A new heating apparatus, specially designed so as to maintain an equality in temperature, has taken the place of the original machinery. The sanitary arrangements have received at the hands of the authorities the most painstaking attention; the drains, closets, sinks, etc., throughout the whole building, have been taken up and relaid afresh, the latest scientific improvements and discoveries having been called in aid in their reconstruction. The original contract, which was for £5,060, has been considerably exceeded, it having been found that the progress of the works developed the necessity for a much larger outlay. The hospital will be reopened for the reception of patients on the 9th instant.

DEATH OF DR. THOMAS BALLARD.

WE regret to announce the death of Dr. Thomas Ballard, late President of the Harveian Society of London, an excellent specimen of the vigorous and active metropolitan general practitioner. It occurred at his residence, Southwick Place, Hyde Park, on Tuesday last. Dr. Ballard had for several years past been the subject of diabetes; nevertheless, his energy and capacity for work seemed undiminished, and he was able to be present at the late meeting of the British Medical Association at Norwich, and to enjoy fully his participation in the objects of that meeting. Two days after his return to town, apparently in excellent health, inflammation of the left hand commenced, and was accompanied by much œdema of the arm. This was considered to be due to plugging of veins, from which affection Dr. Ballard had suffered severely in 1867. His friends—Dr. Barclay, Mr. G. D. Pollock, and Mr. Eastes—were shortly in attendance, but the suppuration extended, and the patient gradually sank and died, as above stated, on Tuesday last. We propose next week to notice the professional labours of Dr. Ballard, so for the present we will content ourselves by stating that, although some of his most cherished medical opinions ran counter to the views generally entertained by his professional brethren, yet he was not devoid of judgment, and we are sure he conscientiously and in all sincerity held those opinions, on behalf of which he was ready to do valiant battle whenever they were assailed at any of the numerous medical societies to which he belonged. His presence will be missed by a large circle of friends and patients. We understand that the funeral will take place at Hanwell Churchyard on Monday next, at 12.30 P.M.

THE CRUISE OF THE "CHALLENGER".

THIS vessel finally left Sydney on June 12th, and was occupied on the route between that town and Wellington, New Zealand, until the end of the month. Careful soundings of the sea-bottom were taken throughout the journey, and dredging operations were continually in progress. The depth of the ocean was found to vary considerably, being in some places 2600 fathoms. For the greater part of the way, the bottom was found to be very favourable for the repose of a light telegraphic cable, being mud and sand; and only near the shore was the bottom of a doubtful character, so that a stronger cable seemed to be required at that part. In all probability, New Zealand will in the course of the year be in telegraphic communication with Europe and America. The *Challenger* was to leave Wellington on July 6th for a cruise to the Friendly Islands, to the Fiji Islands, and to New Guinea, where a complete series of explorations and soundings were to be made, while the question of coral reefs and their history was to engage special attention. After cruising about Polynesia for some time, the *Challenger*, it was hoped, would reach Hong-Kong early in November, there to spend about a month in coaling, refitting, and provisioning.

OUT-PATIENTS AT THE LONDON HOSPITAL.

A QUARTERLY General Court of the Governors of this Hospital was held this week, Mr. E. H. Currie in the chair. The special object of this meeting was to receive a report from the house-committee upon the out-patients' department, suggesting certain alterations in the mode of recommending patients. The chairman said that during the past year 43,800 out-patients (those attending for about two months) had been relieved; and that 25,000 had casually applied for and received medicine and advice. A subcommittee had been appointed to inquire into the working of the out-patients' department, with special regard to its liability to abuse by persons not being proper objects of charity. They had come to the conclusion that many such cases did apply, and received gratuitously medical aid which they ought to obtain for payment elsewhere. To remedy this abuse, they had decided that on all letters given by governors to applicants, it should be stated that the applicants were really unable to pay for advice, and that they were known personally to the governor, or nominated by some individual of public credit and acknowledged respectability. It was proposed to submit this plan on trial for twelve months from the 1st of January next. It was agreed to try the effect of the suggestion of the committee. The report was formally received, but not finally adopted. We are very glad to see that the governors of this great and noble institution are seriously setting themselves to remedy what is undoubtedly a blot in its administration. We very much doubt, however, whether the means proposed will prove efficacious. The owners of letters are, as a rule, only too anxious to give them away to the first petitioners; and it has not been found in practice at other hospitals that any printed notice on the letters restrains in any degree the vicious abuse.

THE PERILS OF PRACTICE.

OUR readers will have noticed in the public papers, from time to time during the last three or four weeks, the history of an investigation at the Lambeth Police Court of a serious charge against Mr. Edmund Pope, a surgeon practising in the Brixton Road. Mr. Pope was accused by a girl named Field of having criminally assaulted her on April 20th, while she was visiting him as a patient; and a most circumstantial account of the assault was given. At the last hearing of the case, Mr. William Quicke, pupil and assistant of Mr. Pope, produced the book in which the names of patients were entered, and in it the name of the complainant appeared for the first time on May 12th. The magistrate, Mr. Ellison, in deciding the case, said the charge was a most fearful one to be brought against a medical man. There was nothing whatever to corroborate the statement of the complainant; but it was no doubt as difficult to have corroboration in such a case as it was to disprove it. The complainant pledged herself to the date being the 20th of April, while on the part of the defence it was clearly proved to be in May. The witness Quicke proved it by the books produced, which had not, Mr. Ellison was certain, been tampered within any way. Those books showed the first visit of the complainant to have been in May. There was so much of her evidence disproved, that he was bound to come to the conclusion that the prosecutrix had made statements not capable of proof, which went at once against her character for truthfulness and morality. There was not one witness but gave overpowering evidence against her statements. It would be impossible, under such circumstances, for any jury to convict. Another thing had been mentioned in the defence, and in charity to complainant he remarked upon it—that she might be suffering under a peculiar hallucination, in which persons have been known to go far in the belief of something which had never taken place. In conclusion, he felt it his duty to discharge the defendant. This decision was no other than we had been led to expect from our observation of similar cases, and from the accounts which had been given us of the character of Mr. Pope, who is, we believe, held in deserved respect among his professional neighbours. While we congratulate him on the result of the investigation, we must—and we are sure that our fellow-associates will join with us—express our profound regret at the annoying and painful position in which he has been placed.

THE PLAGUE IN NORTH AFRICA.

THE plague, which originally broke out at Merj, in the Regency of Tripoli, twenty hours from Benghazi, has now appeared at Bersis, within ten hours of the latter port, owing, it is supposed, to want of proper precautions of maintaining the sanitary cordon which had been established round Merj. A disease of the plague-character has also broken out at Doga, near Mecca. It is already known that, while Egypt has prohibited all arrivals of vessels from the Regency of Tripoli, Sicily, on the other hand, has only established a quarantine of fifteen days. On August 22nd, the Governor of Malta, after hearing the opinion of the Board of Health, directed that vessels arriving from the Regency of Tripoli and from the Arabian Red Sea ports be allowed to enter the quarantine harbour to discharge unsusceptible goods, on condition of leaving the island immediately afterwards. Vessels originally coming from the above mentioned places, notwithstanding that they touch at intermediate ports, will be subjected to the aforesaid treatment. Passengers and susceptible goods, animals included, will not be allowed to be landed. The following notice appeared in the *Gazette* of August 29th. The Egyptian authorities have decided that the presence on board of any vessel whatsoever of pilgrims or merchandise from the Regency of Tripoli would, in consequence of the outbreak of plague in the regency, cause such vessel to be absolutely repelled from Egyptian territory. Also, in consequence of the outbreak of a disease, supposed to be plague, in the neighbourhood of Mecca, it has been decided to subject all vessels arriving from the Arabian coast of the Red Sea to a quarantine of twenty-one days.

HYDROPHOBIA.

REPORTS of inquests on persons found to have died from hydrophobia have appeared at short intervals in the Lancashire papers for the past two years. The latest was a case investigated some days ago by Mr. Herford, coroner for Manchester. The deceased was a man named Thomas Ogden, of Newton Heath. On February 28th last, the man was at the Shears Inn, when a strange dog came in, and he took it upon his knee and stroked it. While so doing, the dog bit him just below the eye. He took the dog home, saying he would keep it; and soon afterwards it bit him again. His wife wished him to have the wounds cauterised, but he refused and fell asleep. He felt no ill effects until recently, when he was affected with pain from the wound on the back of his hand, extending up his arm. He began to be afraid of the consequence, and said he would be dead in a week. He grew worse every day. A week after the symptoms first appeared, he began to foam at the mouth; and, first embracing his family, he told them to get out of his way. Ultimately, his wife and four children were obliged to leave the house. The police were then sent for; but the poor man totally denuded himself of clothing, and defied any one to enter the house. After about two hours, a rush was made towards him by the police, who, having rugs in their hands, threw them over him, and thus prevented him from doing any mischief. He had previously attempted to strike the policemen with a poker, and had thrown a board through a window at them. The rugs were bound round him, and he was taken to the Infirmary, where he died in the course of the evening. The jury found that hydrophobia was the cause of death.

SANITARY LITERATURE.

THE proprietors of the *Greenhithe Monthly Magazine*, impressed with the importance of disseminating a knowledge of sanitary laws, have offered a prize for the best essay "On the Comparative Healthiness of Country and Town Life, and on the best means of applying Sanitary Science so as to ensure the highest Development of Health and the Prevention of Disease"; the successful essay to become the property of, and be published in, the *Greenhithe Magazine*. The terms and particulars of the prize can be obtained from the editor, Greenhithe, Kent.

THE INSTINCT OF BIRDS.

THE foresight of birds of a coming epidemic of cholera has been occupying the attention of the *Jardin Zoologique*. That journal states that, a few days previous to the terrible ravages of cholera in Gallicia in 1872, all the sparrows suddenly quitted the town of Przemysl, and not a single bird returned until the end of November, when the disease had entirely disappeared. The same circumstance was remarked in Munich and in Nuremberg. During the attacks of cholera at St. Petersburg and Riga in 1848, in Western Prussia in 1849, and in Hanover in 1850, every swallow and sparrow forsook the town, and remained absent until the eradication of the scourge.

IRELAND.

THE Ennis Board of Guardians have increased the salaries of Dr. Michael Greene and Dr. Joseph Enright from £100 to £110 *per annum*, and notice of motion has been given to similarly increase the salary of another medical officer.

THE Belfast General Hospital has obtained a charter, and will in future bear the title of the Royal Belfast General Hospital.

FROM the Report of the Queen's College, Cork, for the session 1873-4, it appears that there were one hundred and seventy students in medicine entered during that period in that institution.

NEW HOSPITAL FOR BELFAST.

ON August 18th, the foundation of the new Samaritan Hospital at Belfast, was laid by Dr. Hodges, Professor of Medical Jurisprudence in Queen's College, in the presence of a distinguished company. The foundation of this hospital is due to the liberality of the late Mr. Edward Benn, of that town.

DUBLIN MAIN DRAINAGE.

THE three engineers—Messrs. Palles, Price, and Cotton—appointed by the Corporation to investigate the various plans proposed for the purification of the river Liffey, will commence their examination this week. They will receive an emolument of £50 each; and when their report is sent in, we shall again refer to the subject.

SCARLATINA.

THIS malignant disorder is still very fatal in Dublin, twenty-two deaths having been registered during the week ending August 22nd, and thirty deaths the preceding week, the highest number this year from the affection. Nine deaths from scarlatina were also registered in Belfast during the past week, and a similar number from small-pox.

DR. JOSEPH FERGUSON OF MULLINGAR.

THIS gentleman, who died at an advanced age on the 6th August, held the post of Surgeon to the County Infirmary and Gaol for the past half century, and also for several years that of Visiting Physician to the District Lunatic Asylum. A few weeks since we chronicled his obtaining from the grand jury of Mullingar a retiring allowance equivalent to two-thirds of his salary, a resolution which was passed unanimously by that body. His loss will be greatly felt in the locality in which he practised for such a lengthened period, where he secured the good wishes of all with whom he came in contact.

INOCULATION AT CASTLEBAR.

THE attention of the Guardians of the Castlebar Union has been lately directed to the important fact that inoculation with small-pox virus prevails to a great extent in the various districts of that union. Drs. Blackall and Walshe report that small-pox of a most virulent type exists there at present as a result of this method of treatment, and that it is extending considerably. The guardians have very properly decided to prosecute in every specified case, and it is to be hoped that summary punishment will be meted out to the delinquents of this most dangerous practice. It is reported that an irregular practitioner has inoculated a number of persons, some of whom have since died; and that, at an inquest which was held on a child who had so died, the jury returned a verdict of "Wilful murder against some person or persons unknown".

THE PUBLIC HEALTH (IRELAND) ACT.

THE Irish Local Government Board has taken the first step towards mobilising the new Public Health Act for Ireland. The Board has issued a circular calling the attention of the various sanitary authorities to their duties under the Act, and requesting each authority to settle a day for its first meeting, which must, according to the statute, be held within sixty days of the passing of the Act. The circular is chiefly of a formal nature. We have reason to know that several sanitary authorities, especially to the North of Ireland, had already made preparations for doing their best to carry out the new law; but we are afraid, from the manner in which the circular has been received by some authorities, that obstruction seems imminent, and that considerable *central* pressure will be required to make the Act work. It is gratifying to learn that there are to be only forty-four urban sanitary authorities in Ireland, instead of a hundred and thirteen, as proposed under the Bill.

FORTY-SECOND ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in NORWICH, August 11th, 12th, 13th and 14th, 1874.

PROCEEDINGS OF SECTIONS.
SECTION D.—PUBLIC MEDICINE.

President's Address.—Mr. W. H. MICHAEL (President) delivered an address, which was published at page 225 of the JOURNAL for August 15th.

A vote of thanks to the President was moved by J. J. COLMAN, Esq., M.P., and seconded by C. S. READ, Esq., M.P. Mr. Read said that in public health, as in all other matters, moderation would effect more than severe measures. The President had laid before them, in a moderate and sensible manner, what they might expect from Acts of Parliament, when properly put into operation. The President had said that people could not be made healthy by Act of Parliament, any more than they could be made sober and moral. It was, therefore, the duty of all in their private stations to try to impress upon those around them that sanitary measures really commenced at home; and it was in the homes of the poor that public health was first and foremost to be established.—The vote of thanks was adopted.

The Economy of the Dispensary System of Poor-Law Medical Relief. By JOSEPH ROGERS, M.D.—Dr. Rogers argued that at least 65 per cent. of pauperism was caused by sickness; and that, therefore, their utmost efforts should be put forth with a view of relieving the sick. This would be true humanity to the poor, and it would also greatly ease the poor-rates. Until the Government took up this question fairly and dealt with it, they would never put our poor-relief system upon a satisfactory basis. The new Poor-law Bill, when first introduced, was wanting in the element of proper administration. It was framed with a view to starve the medical service, the effect of which had been that millions of pounds had been needlessly spent because they had not acted justly towards the Poor-law medical service; and, further, hundreds and thousands of people would not have died if a proper and efficient system of medical relief had been established in 1834, when the Poor-law was passed. He said that what was wanted was an extension of the dispensary system of Ireland to England and Scotland. In England, the medical officers were paid a fixed salary, and they had to find drugs, except quinine and cod-liver oil, which were supplied by some boards of guardians, whilst in Ireland drugs were provided by the guardians. The effect of the English system was, that medical relief given was greatly below the requirements, and people were forced to accept relief from the rates, who, if adequate medical relief had been given, would never have become paupers. The funds of the union were wasted foolishly, simply because the guardians, in their ignorance, choose to make arrangements with their medical officers that a little common sense on their part would show them to be utterly ridiculous and absurd. To illustrate this matter, Dr. Rogers quoted some statistics showing the difference of cost of poor relief in Ireland and England, through, as he contended, the giving of efficient medical relief in the former country. From these statistics, it appeared that in Norwich, with a population of 80,390, the total cost of medical relief was only £1,129, and the total poor relief £31,977; whilst in Belfast, with a population of 182,214, the medical relief was £4,346, the cost of drugs £1,278, and the total poor relief only £31,000. Dr. Rogers concluded by advocating the throwing of the whole of the cost of medical relief, instead of half as at present, upon the Consolidated Fund.

On the Correlation of Sick Poor Relief and Public Health Administration. By HENRY W. RUMSEY, M.D., F.R.S.—[This paper was published at page 241 of the JOURNAL for August 22nd.]

Dr. JOSEPH ROGERS (London) agreed with Dr. Rumsey that the union medical officers should be medical officers of health of the first instance; and that they should report to health-officers whose power should extend over large areas, and on whom should rest the onus of taking proceedings when necessary. The health-officers having the charge of the larger areas would, of course, be unconnected with private practice. He wished to put on record the fact that the Commitee of the Association were quite agreed as to the desirability of the adoption of the scheme which Dr. Rumsey advocated. The Poor-law Medical Officers' Association had adopted resolutions which were in unison with the views held by Dr. Rumsey; viz.: "That, in the judgment of this Council, it is desirable that district Poor-law medical officers should be health-officers of first instance in their respective Poor-law districts; and all reports of insanitary conditions made by them in the performance of such duty should be forwarded to a superintendent health-officer acting as such over a considerable area, such as the whole or part of a county, with whom should rest the authority of putting the law in action. That the salaries of Poor-law medical officers should be paid wholly from the Consolidated Fund, instead of partially as at present. That the dispensary system of medical relief should be extended to provincial towns and rural districts; the expenditure in drugs, surgical and other appliances, etc., of dispensary buildings, being left to be defrayed from local sources. That the superannuation of Poor-law medical officers should, under certain statutory restrictions, be in future compulsory, instead of permissive. That the imposition of additional duties, whether sanitary or otherwise, and notably the recent requirement to examine and certify as to the condition of children for the School Board, without any remuneration, should be resisted; and that every effort be made to secure reasonable payment for such extra services." The advisability of the employment of the Poor-law medical officers had been pointed out to Mr. Stansfeld; and he himself had particularly urged on that gentleman the necessity for such a course, but only as officers of first instance. When Mr. Stansfeld proposed to throw upon the Poor-law medical officers the whole responsibility of acting as officers of health, they took fright, and the scheme broke down. Then Mr. Stansfeld took up the idea of adopting only part of the advice offered him; hence the present unsatisfactory state. He wished to draw attention to the fact that the present unfair arrangement, by which the union officers were compelled to furnish statistics without any remuneration, was made during a kind of interregnum; Mr. Lambert's letter to this effect having been issued after Mr. Gladstone's Government had gone out, and before that of Mr. Disraeli was formed.—Mr. JACOB agreed with Dr. Rogers that the salaries of the Poor-law medical officers were too low, but said that, as long as numerous candidates came forward for every vacant office, or until it could be shown that the poor were not getting proper attention, the remuneration of the medical officers would not be raised. He quite agreed with Dr. Rumsey that it was unfortunate that the union medical officers were not medical officers of health; but there was a great difficulty in the fact that an officer of health in private practice, who reported as he ought on the sanitary wants, might injure himself in private practice. What was wanted was more sanitary inspectors, who should give information as to what sanitary defects existed, and what proceedings ought to be taken to remedy the defects. At present, the sanitary inspectors were so few that they could not bring matters requiring attention quickly enough before the authorities. The work was always behindhand. Perhaps, if enough men were appointed now, fewer would be wanted afterwards. Mr. Jacob said it was to be regretted that so little power was given to the rural sanitary authorities.—Dr. A. P. STEWART feared that the destitution authority had got the better of the public health authority. The views which he had propounded in 1868, and which he had set before Mr. Hardy and Lord Devon, were exactly the same as he now held. It was a simple mockery to appoint health-officers over large areas, unless hands and also noses were appointed to help them. Unfortunately, the sanitary work had got into a wrong groove; and he doubted whether, at the end of the five years prescribed by the Public Health Act, and when the appointments might be renewed, it would be possible to put matters on a satisfactory footing.—The PRESIDENT, in reply to what had fallen from Mr. E. L. Jacob, said that the rural sanitary authorities had all necessary powers given them by the legislature in order to work efficiently; but the true difficulty was, that the legislature had given to the Local Government Board no power whatever as to the qualifications of the officers which the rural or urban sanitary authorities might appoint. He agreed with former speakers that an increase in the number of inspectors was necessary. Dr. Rumsey remarked that the difference between rural and urban authority consisted in this, that whereas the rural authorities had power over matters medical, they had none over the roads with regard to drainage, etc.; whereas the urban authorities had this last power, but had none over the medical officers—that is, with regard to organisation of a staff and other matters. With regard to qualifications, it would not be advisable to require an additional qualification in State Medicine from those who were medical officers of the first instance; but such qualification ought to be held by those having the care of large areas. The present mode of inspection was a bad one, and he should very decidedly object to such inspectors as there were at present undertaking to initiate sanitary improvements in the way Mr. Jacob suggested. The relation of officers of health to inspectors existing at present was very improper; the latter were often paid much better than the former.

Hospital Hygiene, illustrated by references to the Norfolk and Norwich Hospital in the present, past, and future. By MICHAEL BEVERLEY, M.D.—Dr. Beverley said that, to meet the wants of an increasing population, it was proposed to make some considerable additions to the building, and it was chiefly in consequence of this he had ventured to invite the attention of the Public Health Section of the British Medical Association to the subject. He then gave a brief history of the rise and progress of the hospital, to show that care was taken at the outset to avoid overcrowding and bad ventilation. Far happier would have been the history of the latter days of the hospital had it retained in its hygienic simplicity its pristine form, that of the letter H, which could hardly be recognised in the sadly encumbered edifice of the present day. He then stated that, by additions made to the hospital by erecting new wards requiring the interposition of corridors, which spoiled the thorough ventilation of two large and important accident-wards on the ground-floor, by adding a museum with undesirable adjuncts of dead-house and appurtenances, and by providing accommodation for nurses, etc., and offices, which greatly impeded free ventilation on the opposite side of the hospital, the original excellent plan of the founder had been neutralised. The back of the central block had been most interfered with, by the erection of a Board-room, a chapel, and surgeons' and physicians' rooms. All these it would be necessary to sweep away should any attempt be made to restore the present building to its former hygienic condition. But the results of surgical treatment in the old and simple building must be the test of its salubrity. Dr. Richardson, in his *Medical History of England*, thus speaks :—"Certain operations have been performed at the Norwich Hospital with a success that is almost without parallel, and the reason of this is, that the great experiment of the treatment after operations by fresh air, and plenty of it, has been going systematically from the first. The Norwich surgeons not only acknowledge nature, but take her as the senior partner of the firm. No wonder they can show an admirable balance-sheet in favour of life after capital operations." Dr. Copeman stated that on two occasions forty cases of stone were operated upon without a single death, once by Martineau, and then by Dalrymple, Crosse, and Norgate in succession, together with the above, forming, as Dr. Richardson observes, "with one exception, the most successful statistics of lithotomy ever presented to the world". After a discussion as to the cause of this great success, he thus sums up : "If neither the selection of cases, nor the skill of the operators, nor the character of the operations (*i.e.*, medium or lateral), have given to the profession of Norwich such a magnificent harvest, and thrown around this hospital so bright a flame, which is the directing cause? Good luck? there is no such thing below the surface of fact. Good luck simply means, in all cases, that some unappreciable cause has been at work, doing what has been done ; and, in the Norfolk and Norwich Hospital, there has been no mythical subtlety, but one great and pervading element of success—not good luck, but good air. When Benjamin Gooch absorbed from Dr. Hunter that simple lesson about the necessity of having free ventilation and plenty of cubic space for each patient, he achieved half the success which was to come. When he applied the lesson, he, seconded by his able followers, achieved the rest." The various additions to the original building were made prior to 1864—kitchen excepted. These, doubtless, added to the accommodation and administration, but at a great sacrifice of recovery and life. He continued : Owing mainly to representations made by me to the Board of Management in 1866, as to the bad condition of the water-closets and drains, the whole were renovated, and a new and excellent system of water-closets and drains was laid down, at a cost of £440, under the superintendence of Mr. C. Ayris, C.E. These are regularly and systematically flushed and examined at intervals by an official (not in any way connected with the hospital), who reports any irregularity to Mr. Ayris. Few hospitals can boast of a better system of drainage. The kitchen has been removed from the main building, where it existed until quite recently. The linen, simple and foul, which was at one time all washed and even dried in the patients' washing-rooms attached to the wards, is now taken out to the wash-house (not far off, it is true). The wards, formerly scrubbed two or three times a week by the nurses, are now thus treated but once a fortnight by scrubbers employed for the purpose. Although the system of nursing has been entirely altered, it is still far from perfect, and the attention of the medical staff will be shortly given to the subject.

Dr. Beverley described the fittings of the wards of the hospital and the various improvements that had been made, and then said that, notwithstanding all this, he should have to record a pyæmic era such as he believed had seldom fallen to the duty of any provincial hospital statisticians. He then gave some important statistics culled from the Hospital Case-Books during the last ten years, as follows.

1. *Major Operations.*—All more or less dangerous to life in themselves, such as major amputations, ovariotomy, excisions of large tumours, etc. Total number of operations, 725. Total number of deaths from all causes, 90; being one in 8.02, or 12.42 per cent. Of the 90 deaths, 24 were from pyæmia, giving a death-rate from this cause alone of one in 30.20, or one death from pyæmia in every 3.75 from all causes, or 3.31 per cent. of the whole.

2. *Minor Operations.*—Not necessarily nor usually fatal to life in themselves, such as amputations of fingers, rectal operations, removal of small tumours, etc. Total number of operations, 1101. Total number of deaths from all causes, 9, of which 2 were from pyæmia.

3. *Operations of Dernier Ressort*, not included with above as either usually fatal from previous disease or injury, such as tracheotomy for croup and diphtheria. Number of operations, 40 ; deaths, 9 ; or one in 4.4, or 22.5 per cent. No death from pyæmia.

Amputations from Injury.—Total number, 75. Deaths from all causes, 24, or one in 3.12, or 32 per cent. But, of the 24 deaths, 12 have been from pyæmia, giving a death-rate from this cause alone of one in 6.25, or 16 per cent., or one death from pyæmia in every two from all causes.

Amputations from Disease.—Total number, 68. Deaths from all causes, 15, or one in 4.53, or 22.05 per cent. But, of the 15 deaths, 7 were from pyæmia, giving a death-rate from this cause alone of one in 9.71, or 10.29 per cent., or one death from pyæmia in every 2.14 of deaths from all causes.

Lithotomy.—Total number, 112. Deaths from all causes, 17, giving a death-rate of one in 6.85 or 15.17 per cent. But, of these 17 deaths, 5 were from pyæmia, giving a death-rate from this cause alone of one in 22.4, or 4.46 per cent., or one death from pyæmia in every 3.4 from all causes.

Bad as is the hygienic condition revealed by the above statistics, I regret to have to tell you that it is really worse even than it appears. I have given an account only of deaths from pyæmia after operations. These amount in the ten years to 26. I must add 16 more as "after injury", such as compound fractures, wounds, etc., for which no operations were performed ; this makes a total of 42 deaths from pyæmia during the last ten years, in nearly all of which the presence of secondary metastatic abscesses in the lungs, liver, or some other organ, has been proved by *post mortem* examination, the chief symptoms during life having been rigors, profuse perspirations, persistent high temperature, and mental depression. I am bound also to state that numerous cases of death from wounds, compound fractures, and other injuries, have occurred, in which the symptoms of pyæmia or septicæmia have been present during life, but in which no *post mortem* examinations have been made, the cause of death being returned in the words "accidental death" by the Coroner's jury, these words having been made to cover many a death from septic disease. Out of 779 cases recorded as wounds during the ten years I have analysed, 36 deaths have occurred ; of these, 7 only have been returned as dying of pyæmia : 116 compound fractures are returned during the same period ; of these, 40 have died, and 6 only are assigned to pyæmia. I am afraid "shock", "exhaustion", "hæmorrhage", "tetanus", and other causes, will not alone account for the remaining 93 deaths.

We see, then, that the high rate of mortality is undeniably due to the prevalence of septic diseases. I will now endeavour to point out the causes to which these influences may be assigned in the present, and consider the means of avoiding them in the future. These causes are all due to the neglect of the one great element of hospital hygiene—"fresh air, and plenty of it". The lesson on free ventilation, which Gooch learned from his friend Hunter, has, during the past half-century, been first lost sight of, and then almost necessarily ignored. It was lost sight of—firstly, in the spoliation of the building by successive additions and alterations ; and, secondly, it was necessarily ignored by the overcrowding to which it has been subjected, owing to the growth of population and the increased number of wounds and accidents, with a corresponding increase of severe surgical operations, which both the city, by its manufactories, and the county, by its agricultural machinery, now supply.

Having given evidence of the overcrowding of the hospital, Dr. Beverley said : Now comes the question, what is to be done for *the future?* Are the surgeons of the Norfolk and Norwich Hospital to remain content to lose 66 per cent. of their amputations for injury, and 10 per cent. of their amputations for disease, from causes which are said to be preventable ? Is pyæmia to be allowed still to reduce their lithotomy average to the present rate of one in 6.58 ? Are there to be no means taken to prevent a recurrence during the next ten years of twenty-four deaths in ninety from pyæmia in the major operations, two in nine in the minor, and sixteen from accidental wounds ? Is an annual death-rate of four from pyæmia (liable to be increased in any year to seven or even twelve), not to be counteracted ? The *status quo* cannot, must not, be allowed to continue. It would be better far to do away with the hospital entirely, and let those who now unconsciously run the gauntlet of its hidden dangers submit to surgical treatment in their own cottage-homes, where they would have an undoubted better chance of recovery, even from the greatest accidents and operations, than in the wards of our hospital as it now exists, even with the aid of efficient nursing, good food, and the care and skill of its surgical staff. Dr. Beverley maintained that pyæmia was a disease produced exclusively by hospitals, and quoted Mr. Cadge, who said: "I have unwillingly and almost tremblingly proceeded to operate in the hospital; but I have had a happy confidence and a perfect assurance that in all private cases I should avoid any of these disastrous consequences, and I come to the conclusion in my own mind that pyæmia, if it do not find its birth-place, does find its natural home and resting-place in hospitals, and, although a hospital may not be the mother of pyæmia, it is its nurse." Since Mr. Cadge made the above remarks, we have carried out many details likely to improve our hospital hygiene. We have closed and disinfected pyæmic wards, given up the use of sponges, adopted the antiseptic system, improved the ventilation of both wards and corridors, made a large reduction in the number of beds, and thus increased our cubic and superficial area to an unusually large average per bed; but all has yet been of little avail. We have been almost entirely obliged to give up operating in the hospital, and the corporation has placed at our disposal for this purpose, for the last five months, a small iron hospital, where most of the operations have been performed; but even there erysipelas has proved fatal in a case of excision of breast for cancer, brought about, in my opinion, by an overcrowding under one roof of nothing but surgical wounds at a time when, from the unusual heat of the weather, the temperature in this small iron hospital was almost unbearable. Here, then, are the facts:—A pyæmic-stricken hospital, centenarian in age, original form and sanitary arrangements good, but spoiled by subsequent additions: its requirements for the reception of surgical patients and serious accidents of all kinds still greatly increasing. Such is the problem I ask you to help us to solve. Whatever is done, there should be *no additions to the present building*. Mr. Erichsen states: "There is one remarkable circumstance connected with the age of hospitals: that new buildings added on to old hospitals become more unhealthy than the original building." I do not think it will be necessary to pull the hospital down and build an entirely new one, although, if we had the funds, such would probably be the wisest course. This had been done at Lincoln, where it was found (after years of attempts to root out pyæmia, by renewing the interior of the hospital, improving ventilation, etc.; in short, taking the same steps as we are now taking at Norwich), that nothing but demolition would remove it; that, as the writer on the subject puts it, "just as the cattle-plague has to be stamped out by the pole-axe, so has the infection of a pyæmic hospital to be destroyed by the pick". I am not quite prepared to recommend the pick, as we have a very large proportion of chronic medical cases, and a few acute ones, always under treatment in our hospital. Let it be retained, then, for these; but I will suggest that it be restored as much as possible to its original form. Let the other causes which produce overcrowding, and tend to its unhealthiness, be removed: such as the reception of a large body of out-patients twice a week, and more or less every day, into the centre of the building. Let the dead-house and its belongings, now connected with and close to the wards and corridors, be removed to a safe distance. Let there be a more careful attention to the ventilation of the lower corridors at night, which for many months of the year supply the wards with night-air; and I think, by these, and a closer attention to the simple hygienic rules on the part of nurses and officers, the old building may be retained with safety. But what is to be done for the surgical patients? If for them you build a new surgical hospital on the recently acquired three acres of land, with all the improvements and appliances which sanitary science and knowledge can produce, I fear you will not remedy the evil. For a time, your new building will probably give you an improved death-rate after wounds and operations; but I venture to think that, in due course, septic troubles will arise, as they necessarily must in any building constantly and exclusively used for surgical purposes. My proposition is to have a series of one-storied and separate buildings, dotted over the ground which has been bought for the extension of the hospital; that these buildings should be in sufficient numbers to admit of one for each sex being kept always empty, so that, after the plan recommended by Billroth, no ward should be used for more than a month or six weeks in succession. It should then be emptied, carefully cleaned, and left open, the furniture and linen well aired and washed. To this end, the beds should be limited to eight, with two small separation-rooms to each for very bad cases, as by so limiting the number sufficient can be discharged to allow the wards to be easily emptied and filled again in turn; and for this reason also the new patients should be always placed in the ward last cleaned. In addition, I think there should be a separate building, into which any case of erysipelas or septic disease might be at once removed and isolated. The plan of detached buildings is, I am aware, open to many objections from the administrative point of view as regards hospital economy and management; but these are difficulties which can be overcome; and, even granting that many inconveniences must exist more than in the present compact and comfortable edifice, still it is our first duty to adopt such plans in hospital extension as shall give to those who entrust their lives to our care the best chance of recovery and the greatest freedom from the risk of any dangers likely to be caused by the hospital itself; in fine, it is only right we should take care that the advantages we offer are not more than counterbalanced by the sacrifice of life from diseases caught within its walls, and aggravated by its influences. The plan suggested of detached and isolated one-storied small buildings, so erected that an unlimited supply of pure air for the inmates is the chief consideration in their construction, and the two rules laid down by Dr. Parkes, in his work on *Practical Hygiene* (section Hospitals), should be carried out. First, the sick should be distributed over as large an area as possible, and each sick man be removed as far as possible from his neighbour; second, the sick should be placed in small detached and perfectly ventilated buildings, so that there is no great number of persons in one building, and no possibility of the polluted air of one ward passing into another. Then the Norwich surgeons might again be said not only to acknowledge nature, but to take her as "the senior partner of the firm", and to hope once more to show the same admirable balance-sheet in favour of life which gained such golden opinions for the Norfolk and Norwich Hospital in the glorious pre-pyæmic era.

Mr. SYMPSON (Lincoln) opened the discussion on this paper by showing that the alterations made in the Lincoln County Hospital had not been improvements, inasmuch as they had interfered with ventilation, and consequently with the chance the patients would have of recovery from serious ailments. When there had been any great accession of surgical cases, so surely was that succeeded by the prevalence of pyæmia or erysipelas. Of forty-eight cases of open wound, nineteen had pyæmia and two died.—Dr. RUMSEY (Cheltenham) stated that, whenever an east wind prevailed in the metropolis which blew the atmosphere of the city towards St. George's Hospital, erysipelas and pyæmia prevailed. He inquired whether like phenomena were observed in Norwich or Lincoln.—Mr. SYMPSON replied that east winds greatly prevailed at Lincoln; but it was observed that the north winds, which brought the air from the water-closets, were followed by a season of unhealthiness.—Dr. DRUITT (London) congratulated Dr. Beverley upon the service he had rendered the profession and the public by exposing the causes of the pyæmic condition of our hospitals. One method of getting rid of the disease would be to pull down and rebuild the hospital. He mentioned, as a precedent, an old building, which was used for preserving meat and soup, in which, at certain times, everything went bad notwithstanding the greatest care. He advised that the building should be pulled down and rebuilt. This was done, and the proprietors have been great gainers in consequence.—Mr. R. BARWELL (London) objected to the complete pick-and-axe demolition, and said all that would be necessary to make the county hospital healthy, was to pull down the additions which had been injudiciously made to the original plan. No hospital could, in his opinion, be kept healthy for a large number of years, especially if there were a large number of bad accidents, unless there were ventilation in the wards from back to front without the intervention of corridors. There should be one row of windows for each row of beds. There should be no curtains and testers for infection and disease-germs to lodge; no nooks and corners where the air could not circulate; the windows should come into the furthest corners of the wards, and the staircase should not be in the body of the building, and not connected directly with the wards. He did not approve of the detached buildings recommended by Dr. Beverley, because of the difficulty of draining them satisfactorily. He advised also that the out-patients' room should not be in the main building.—Dr. FALCONER (Bath) said that the system of washing floors when erysipelas was prevalent in the hospital was one of the most pregnant causes of its spreading. He suggested that, instead of pulling down old hospitals and erecting new ones, movable roofs should be supplied; and, provided there were no continual washing, but only dry rubbing, and no curtains attached to the beds, he believed the buildings would be restored to their original healthy state. An enormous amount of contamination was introduced into hospitals by out-patients, who ought not to be received into the building, but another ought to be set apart for that purpose. It was a mistake to think that we had the air of a building under our complete control; the points of ingress and egress depended upon circumstances, and changed with the opening or shutting of a door.—Dr. RUMSEY said that the increase of erysipelas at St. George's Hospital after an east wind, to which he had previously referred, could not be due to the air from the drains being blown into the wards, because the drains were on the other side.—Dr. COPEMAN (the President) thought the reason why east winds produced an increase of erysipelas at St. George's Hospital was, that they were cold, and not that they flew over the drainage. He spoke of pyæmia as unknown in his early days. Long before the additions were made to the Norfolk and Norwich Hospital, there was a worse attack of erysipelas than had since been known. The fatal cases were so numerous, that operations ceased for a time, and no fresh patients were admitted. For years afterwards, there was no more erysipelas, and it was only recently that attacks of pyæmia had appeared. As there had been periods of remarkable immunity from deaths, he did not know to what to impute it. There had been improvements in draining, and it was only a short time since that the roof was found to be filled with impurities, so much so, that the air was hardly respirable, and he suggested that some of the bad air might have escaped into the hospital, instead of going out at the top. However, the state of this roof had been altered.—Dr. C. B. FOX (Chelmsford) thought that the walls of old hospitals were saturated with organic matter, and he asked whether any disinfection of these pyæmic hospitals had been attempted by ozone or any other oxidising agent.—Mr. JONATHAN HUTCHINSON (London) said it was assuming too much to say that *new* hospitals were free from pyæmia; for instance, in the Leeds New Infirmary and St. Thomas's Hospital, the disease had been worse than in any old hospital. In the Schleswig-Holstein war, where cottages were converted into hospitals, the doctors had much trouble with pyæmia in the treatment of the wounded. Although hospital ventilation was desirable, it had little or nothing to do with such diseases as hospital gangrene, erysipelas, and pyæmia. Was it not desirable to undertake a special and close investigation as to what were the real causes of these diseases, and the modes of their spreading? His belief was, that hospital gangrene scarcely ever originated except from syphilitic phagedæna, and that pyæmia was due to phlebitis arising from local venous contagion.—Dr. FUSSELL (Brighton) spoke against house-surgeons and pupils going into fever-wards and *post mortem* rooms, and then proceeding to accident-wards to dress wounds. It was of no use to cut off bath-pipes and scullery-pipes, and to open windows, unless attention were given to this matter. He thought there should always be a special pathologist to undertake *post mortem* examinations in hospitals.—Dr. BEVERLEY, in reply, said that he agreed with Dr. Fussell that there should be a pathologist specially connected with all hospitals, and that house-surgeons ought not to make *post mortem* examinations and afterwards dress wounds. He maintained that the presence of septic disease was due to bad ventilation and overcrowding. Hospital gangrene was unknown in the Norfolk and Norwich Hospital, and he was startled by Mr. Hutchinson's theory. He held that, if a new surgical hospital were erected with all recent appliances, only for a little time would there be good results. The proper material for hospital-walls had not yet been determined. In a ward now being fitted up by a private individual, he had recommended Parian cement polished, instead of plaster.—The PRESIDENT remarked that glazed tiles would be better.—Dr. BEVERLEY agreed, but said expense forbade it. After urging the efficacy of small isolated buildings for surgical cases, and thanking Dr. Druitt for the kind manner in which he had spoken of his paper, Dr. Beverley remarked, in reply to the question of Dr. Rumsey, that he had observed more septic disease during the prevalence of easterly and northerly winds, for which he accounted by the persistency of nurses and attendants in closing the windows, notwithstanding all the vigilance of the house-surgeons.

Water-Analysis, as it should, and as it should not, be performed by the Medical Officer of Health. By CORNELIUS B. FOX, M.D.—Dr. Fox remarked that the medical officer of health should not only be prepared to answer such a question as "Does a water contain a deleterious amount of organic matter?" but should be able to reply to such interrogations as "Is this water wholesome and good?" "Which of several specified wells or springs furnishes the purest water?" etc. In order to answer the first query, the majority of health-officers have been in the habit of mixing with the water to be tested a solution of permanganate of potash. Dr. Fox showed (1) that this salt sometimes fails to afford any indication of the presence of organic matter in water that may contain a large quantity of it; and (2) that, in those cases where it affords its characteristic reactions, this test is not sufficiently sensitive. Examples were given in proof of these statements. The permanganate of potash test seems to have become obsolete amongst analytical chemists, who maintain that the salt does not oxidise albuminous matters. Dr. Fox desired that the medical officers of health should substitute the Nessler process, which can alone be depended on for the determination of the organic matter. Wanklyn laid down the rule that a water should not contain more organic matter than .08 parts per million. The amount of ammonia present in a water must, however, be taken into consideration in conjunction with that of albuminoid ammonia, for the latter is convertible into the former. In the majority of cases that present themselves, the question propounded was as to whether the amount of organic matter present in a water (for nearly every water contains some organic matter) is within the permissible limit. This could be answered in half an hour. If it become needful to estimate the *amount* of organic matter present in a water, forty minutes will be occupied. Mr. Wanklyn, in the last edition of his work on *Water-Analysis*, writes: "I should be inclined to regard with some suspicion a water yielding a considerable quantity of free ammonia along with .05 part of albuminoid ammonia per million." Dr. Fox did not agree with Mr. Wanklyn, and furnished the following analyses which he had himself made of deep artesian wells renowned for the purity of their waters.

	PARTS PER MILLION.	
	Free Ammonia.	Albuminoid Ammonia.
A. Depth, 385 feet	.59	.04
B. Very deep Artesian Well	.41	.07
C. Depth, 330 feet	.37	.06
London Water Supply (Thames)	0.01	0.06
,, New River	0.00	0.06
,, Kent Company	0.01	0.02
Very bad Water. Thames Water at London Bridge	1.02	0.59

Dr. Fox proceeded to point out the different sources from which free ammonia in waters may be derived. In order that the medical officer of health may be enabled to answer such questions as "Is a drinking-water wholesome and good?" "Which of several specified springs or wells, all situated, perhaps, in one village, furnishes the purest water?" it is necessary to ascertain, in addition to the amount of organic matter present in it, the total quantity of solid residue and the degree of hardness. Physicians are well aware of the deleterious effects on the composition of the blood of waters which contain a large amount of saline matters, if taken frequently for long periods of time. Good spring-water usually contains about 17, 18, or 19 grains per gallon of solids. Dr. Fox had found as much as 485 grains per gallon of solid residue in a water. The maximum amount of solid residue permissible is from 30 to 40 grains per gallon. Sea-water holds in solution from 2,400 to 2,700 grains of saline matters per gallon. The hardness of a water is an important matter, if we would give an opinion as to whether it is or is not wholesome. Good waters average between 11 and 16 degrees of hardness. Dr. Murray of Newcastle-on-Tyne has given us a terrifying description of the evils resulting, in the limestone district in which he lives, from the supply of very hard waters. Dr. Fox, as the medical officer of health of a very extensive district, had made it a rule to analyse those waters only that were suspected of having created sickness. Time did not permit him to analyse waters brought to him by persons actuated solely by motives of curiosity. A complete analysis of a water, which embraces a determination of the amount of ammonia, albuminoid ammonia, chlorine, solid residue, and the degree of hardness, cannot be accomplished in less time than an hour and a half. Such an examination is, however, seldom required, except when the subject of the water-supply of a parish or village is dealt with in a sanitary report. Remarks on the influence of clay on waters, and on the beneficial action of certain aperient waters found in aguish districts, in counteracting the pernicious effects of the malarial poison by relieving the portal system, etc., concluded the paper.

Dr. FUSSELL (Brighton) said that he perfectly agreed with Dr. Fox that the permanganate of potash test for organic matter was fallacious. He also thought that no reliance could be placed on the Nessler test for ammonia, if it were used without distillation. The method of Wanklyn and Chapman was the best. The degree of hardness in water varied very much even in the same district; at Brighton, it was 9 deg. in one part and 14 deg. in another. He alluded to the fact that, when iron was present in water, brandy sometimes turned it black when mixed with it. He also mentioned an instance of well-pollution which was traced to a barrel of paraffin thirty yards distant.—Dr. GIBBON (London) thought that the rapid method of water-analysis proposed by Dr. Parsons was not to be relied upon.—Dr. PARSONS (Goole) said he did not recommend the permanganate of potash test. He stated, as a remarkable fact, that, although, as Dr. Fox had said, stone might be induced by drinking hard water, yet in Somersetshire this was not the case, and, in the cider-drinking districts of that county, cholera and gout were very rare.—Mr. HAVILAND (Northampton) confirmed the statements as to the freedom of Somersetshire from stone.—Dr. ARMISTEAD (Cambridge) said that, in his opinion, no reliable information could be obtained as to the quality of drinking-waters, unless Wanklyn and Chapman's method was employed. The difficulty was in fixing a standard of purity. He should not be inclined to condemn as unfit for drinking any water with less than .1 *milligramme* of albuminoid ammonia per *litre*. He did not consider the amount of nitrates of much value, although Dr. Frankland thought it all-important.—The CHAIRMAN stated that Dr. Frankland did not consider that the amount of nitrates indicated the amount of impurity.—Dr. ARMISTEAD said he was glad to hear that he did not; for he and many others had been led to understand that he laid great stress upon it. As regards the amount of chlorine, he thought it useful only as a negative test, and might be taken to indicate by its absence the absence of pollution.—The CHAIRMAN made some remarks as to the influence of hard or soft water upon the health of the population. A case in the House of Lords, involving about £60,000, turned on this question. Some statistics were given, in order to show that hard water used by the population was much more healthy. These statistics were divided into three classes. The first series showed that, where soft water was used, the mortality was greatest; the second that, where moderately hard water was used, the mortality was less; and the third, that, where average water, from seven to ten, was used, the mortality was the least of all. But these statistics broke down from the fact that, in some cases where the tables showed the least mortality, the mortality was the highest, while, in some cases where the mortality was said to be highest, where soft water was used, it was lowest. These facts showed the necessity for statistics as to the influence of hard and soft water on the public health.—A new method of detecting nitrates in water was exhibited by Dr. Fullarton, who said and showed that the water supplied by the Norwich Waterworks Company was comparatively free from nitrates, although not absolutely so, while that some he had obtained from a well, and which was used for drinking purposes, was charged with nitrates. The test was putting a little pyrogallic acid into the water, then introducing a small quantity of sulphuric acid by running it to the bottom of the test-tube by means of a funnel, and next adding a small quantity of salt. The water effervesced when the salt was added. The Norwich Waterworks water changed to a delicate orange tint, and the well-water became black. This blackness was due to the presence of nitrates. The larger the amount, the darker the colour produced.

The Relative Frequency, the Causes, and Modes of Suicidal Attempts in the Army and Navy. By W. R. E. SMART, M.D., C.B., Inspector-General, R.N.

The Cause, Mode of Propagation, and Non-contagious Nature of Enteric Fever. By ANGUS MACKINTOSH, M.D.—During the last eighteen months, Dr. Mackintosh had had no fewer than one hundred and fifty cases of enteric fever in his district. In the outset, he remarked that he believed the disease to be due to, or generated by, the decomposition of organic matter, and by that alone. Since his appointment as Medical Officer of Health to the Chesterfield District, he had watched with the utmost care all cases that had occurred therein, and had taken full notes to satisfy himself concerning the mode of propagation and other traits of the malady. The disease had been endemic in the union, and more than usually fatal, for the last century; in fact, at so remote a period as the Roman invasion, Chesterfield and its neighbourhood were known as hotbeds of fever and all other catching and spreading evils. This fever had been for ages known all over the civilised world; and, although the subject had been investigated, yet professional men differed widely in their opinion as to whether the disease arose *de novo*, or was always conveyed from one person to another. His own experience was in favour of the former view, and was opposed to the latter.

A New System of Ventilating Drains and Sewers. By ANGUS MACKINTOSH, M.D.—Dr. Mackintosh said that one of the most vexed and important questions of the day was the ventilation of sewers and drains. With regard to dwelling-houses, he always felt it his duty as a medical officer of health, to recommend that all drains directly and indirectly connected with inhabited houses should be efficiently ventilated outside the buildings. Where water-closets were in use, he made this an indispensable condition; and even the sink-pipes when carried inside, as they were almost always, required that the danger consequent on ingress of injurious elements into dwellings from them, more particularly where they were connected with cesspools or cesspits, and minus any other outlet, should be prevented. The temperature inside dwelling-houses was higher than that of drains; hence the current into the former, where the pipes were not efficiently trapped. Dr. Mackintosh had on various occasions traced the outbreak of enteric fever in rural districts and in isolated places to this source of evil. The fan system of ventilating main drains and sewers, he believed, would answer admirably where there was sufficient water-supply for the purpose, precisely on the same principle as mines were ventilated; with this difference, that large fan-wheels in mines were usually worked by steam-power, while in sewers they could be managed with the sewer-water.

The Geographical Distribution of Disease within the Area of the Combined Sanitary Authorities in the Counties of Northampton, Leicester, Rutland, and Bucks. By ALFRED HAVILAND, Esq.—Mr. Haviland thought it desirable that every medical officer of health should acquaint himself not only with the vital statistics of his area for the last year, but for at least the ten years preceding the passing of the Public Health Act of 1872; indeed, so much importance did he attach to this knowledge, that he had coloured seventeen maps, which he exhibited, showing the proportional mortality throughout his area during the ten years 1861-70. Whilst the present absurd and unnatural system adopted for the regulation of the boundaries of registration districts lasted, no thoroughly minute pourtrayal of disease-distribution could be carried out for England by any one person. At present we were obliged to be contented with the proportional death-rate from different causes during certain periods in districts only, if we relied solely on the facts and figures of the Registrar-General; but it was now within the power of every medical officer of health, provided his other duties admitted of his doing so, to so allot to each village and town its own burthen of disease, that in the course of the next quinquennial period a really valuable chart of the geographical distribution of the different causes of death might be the result. As a basis for his own attempt in carrying this project out, he had taken the Registrar-General's proportional returns for the decennial period, and had coloured each district within his area in accordance with the plan he had adopted in his work on *The Geographical Distribution of Heart-Diseases*, and in the maps which illustrated his lectures at St. Thomas's Hospital on the distribution of diseases generally. With regard to the plan he recommended in future, Mr. Haviland explained that he intended to adopt the natural divisions which were to be found throughout England and Wales—viz., the ridges of each catchment-basin and the tributaries, according to their importance of the main river; and he hoped that he should be able to prove, after a few years, how necessary it was for the study of this subject that the Government should adopt a reasonable and natural system of district boundary lines instead of the present one, so perplexing and irrational, as it was well known to be, not only to the medical geographer, but to every one else. He had brought the subject before the British Association at Liverpool some few years ago, when what he urged against the present system was acknowledged to be true, and what he proposed as a substitute was felt to be most desirable. In the present paper, and in the maps exhibited, he had included Peterborough and two other districts—Brixworth and Kettering—although not combined with his own, in order to make the subject of disease-distribution in the whole of the county of Northampton complete for the decennial period 1861-70. Fever ("typhus" of the Registrar-General), the author remarked, had certainly greatly diminished in the last decade, and compared favourably with the preceding one, although the districts mapped out indicated a high rate of mortality. Brixworth, one of his uncombined districts, stood prominently out as a district of the fifth degree of mortality (highest but one); and Brackley, too, attained that unenviable position. The districts of Oundle, Uppingham, and Market Harborough, were the three having the lowest mortality from this cause. Mr. Haviland explained, by the aid of the geological survey map of his area, that while the oolitic formations, with their limestone-rammal, and Northampton sands lying on the upper lias clay, afforded abundant water at their junction, both as springs forming the tributaries of the Nene, and as a supply for wells, which generally were not more than twenty or thirty feet in depth, they at the same time facilitated well-contamination from the many thousand foul sources scattered over the face of the area; and it was a very significant fact that, during the ten years named, the town of Northampton had a death-rate from this cause actually *below* the average of all England, whilst the surrounding rural districts had a death-rate *above* it. Northampton derived its water-supply from a well 163 feet deep, sunk into the marlstone, having a solid mass of blue limeclay, 153 feet thick, intervening between the water-source and the pollution-source.—*Scarlet Fever.* The area had not suffered much during the ten years from this cause. Northampton had a high death-rate. The author had found that this disease, as a rule, travelled from large centres to large centres, and affected the intervening villages lying upon the high roads, or those easily accessible by rail. In one of his districts a frightful outbreak had occurred last year, having got suddenly ahead in consequence of the medical practitioner having certified that the first case was one of catarrh and sore-throat only. This case was brought from Birmingham by a convalescent, but desquamatous, girl. At this conference the medical officers of health wished that the Government should provide against such cases. Schools, both public and private, were great disseminators of disease. He believed that the medical officer of health had a most important duty to perform with regard to institutions of this kind. The schoolmasters and schoolmistresses had to be closely watched. *Small-pox* was not very prevalent throughout the area, except in Northampton, where it reached the sixth or highest degree; since then, a well-developed small-pox hospital had been established through the energy of one of the local medical practitioners, Dr. Barr, and he believed that through its means last year the town was saved from another invasion. The attack having come from Birmingham, the case imported was the one that awakened the authorities to the fact that they had small-pox in their midst. Highways and railways were the great means by which this and other contagious diseases were distributed. If it be a London road from a centre, the tramps ought to be watched and traced. Ever since Birmingham had been a centre, the author had recommended the sanitary authorities in his area to instruct the police to watch both the incomings and outgoings of all tramps on certain lines of road. This has been done, and, so far, it is to be hoped, with success. With regard to *measles, diarrhœa, diphtheria,* and *whooping-cough,* nothing definite could be exactly said as to their distribution. In Northampton, diarrhœa showed a high mortality; and from his own experience he believed the cause was to be found in the escape of sewer-gases from the gullies and man-holes, which were neither ventilated nor efficiently trapped. *Phthisis* is a disease that kills females terribly throughout the whole of the area: it has done so for more than twenty years, and is still continuing an unchecked course. The boot and shoe manufacture, which is the principal employment in this area, combined with pillow-lace making, are the two grand causes, simply because so much work is done by females in overcrowded private rooms: during the winter especially they huddle half-a-dozen together, for warmth and company, in small rooms with cubical space not sufficient for two adults, and having, if there be no fire, the chimney blocked up and every crevice carefully closed. When the work for the day is over, they go out into the keen air of the Nene valley, enfeebled by the atmosphere they have breathed all day, and with their skins pouring forth an unwholesome sweat, which is too frequently checked from want of proper clothing. If the map of death from phthisis in females be compared with that in males, the contrast will be seen to be most striking. In the latter map, the death-rate stands at the second degree, or that just above the lowest for all England. In the first place, the men do not work like the women; and, moreover, the Northamptonshire shoemaker is fond of preaching, and, whenever he can get it, of out-door exercise, with his inevitable dog. If we now look at the map of *infant life*—that is to say, the death-rate of children under one year of age—the author remarked that it could be hardly distinguished from that of death from phthisis in females. This high death-rate among infants ceases to be remarkable when we know the social surroundings of the mother. In conclusion, the author expressed his conviction that much advantage would accrue to the medical officers of health by the study of the several causes which act as factors in the distribution of disease. Whether they be social or climatic, some knowledge of geology is absolutely necessary, and the physical characteristics of the country should never be lost sight of. He would urge upon all medical officers of health the necessity of getting their authorities to adopt a regular system of scavenging in their villages, and to carry the refuse to what he termed the parish muck-acre; whenever it is practicable, to get the water-supply pure without air pollution, as overcrowding is doing as much evil as water-pollution.—The President remarked that very little would be done in the cause of humanity until the Government took steps to obtain reliable statistics respecting the geographical distribution of disease, which was more wanted than statistics of geographical distribution of mortality.—Dr. Irvine asked if any one had noticed any connection between the oscillations of the temperature of the atmosphere and ague.—Dr. Gibbon thought that phthisis did not depend always on damp for exciting cause; and mentioned as remarkable the freedom of Jews from that disease. He had never met with a phthisical Jew.

Tobacco and Public Health. By C. R. Drysdale, M.D.—Dr. Drysdale said he was hardly aware whether the members of the Section of Public Health might consider the question of tobacco-smoking as of sufficient importance to need discussion. Indeed, he had on several occasions found among the ablest members of the profession a practical denial of the idea that tobacco could do harm, since, at most of the convivial meetings of the profession he had attended of late years, even the ablest men retired homewards with a cigar burning. Then, too, a medical journal had, in the last war, counselled the sending out of tobacco with other comforts and necessaries for the health of the troops, so that evidently many doctors favoured *nicotiana tabacum.* Nevertheless, Dr. Drysdale not unfrequently saw very grave evils arise from the use of Virginia and other forms of tobacco used in England. Thus, in one week in 1874, he saw two young men with almost complete loss of vision; the one from smoking about an ounce of shag daily for years, the other from chewing tobacco constantly. Dyspepsia, diarrhœa, and piles were, he conceived, often caused by the use of tobacco; and palpitation of the heart and functional disease of that organ were commonly met with in smokers, especially in young men of delicate health. Chronic smoking caused a peculiar aspect of the tongue; in some cases, the organ appeared as if brushed over with nitrate of silver. Stomatitis and dusky fauces were common in smokers; smoking tended, unless great cleanliness were observed, to injure the teeth greatly; and, among the poorer classes, it was quite deplorable to see the filthy condition of mouth caused by addiction to tobacco in many instances. It was fortunate that women did not as yet use tobacco in England; for it was found, in the State tobacco-factory at Iglau in Vienna, that the female operatives who were suckling had their milk so impregnated with nicotine, as to kill the infant in a large proportion of cases. Besides which, tobacco-smoking contaminates the air of rooms and railway-carriages, and is disagreeable to everybody, male and female, and not only to smokers. The use of tobacco favoured paralysis of different kinds, paralysis agitans especially; and there could be no doubt in the minds of all who closely, and without prejudice, studied the case, that tobacco-smoking was quite unlike tea or coffee; it was simply a vice, and not useful, but injurious to health.—Dr. Bateman (the Chairman) said he approved of Dr. Drysdale's paper, and thought the subject exceedingly interesting and of great importance to the health of the public.—Dr. Kenyon mentioned cases of amaurosis caused by tobacco-smoking.—Dr. Fussell thought that tobacco-smoking had a very injurious effect upon the health.—Dr. Glover and Dr. Pitt also made remarks in favour of the paper.

The Districts of Medical Officers of Health. By W. Armistead, M.B.—Dr. W. Armistead exhibited a map showing the districts of medical officers of health in England and Wales, with the salaries paid to each. He said that the appointments had been made without any regard to uniformity. Perfect freedom of action was allowed by the Public Health Act, 1872, to the various urban and rural sanitary authorities thereby created, and the result was a muddle. 1. Some of the districts were formed by the combination of several unions, but none of these were perfect districts. Mr. Haviland's district, for instance, had in its midst two unions, Brixworth and Kettering, which were not in the combination. Mr. Robinson's district of East Kent did not include Canterbury and other urban districts which ought to be included. Dr. Bond's Gloucester District was divided by the unions of Stroud and Heatenhurst into two parts. Such anomalies as these ought never to have been allowed. These districts had been formed only for the appointment of medical officers of health, and for no other purpose. Each union in the district had usually its own inspector of nuisances, and transacted its own business independently of the others. It had been held also by the Local Government Board and some auditors, that the joint appointment of a medical officer of health by several authorities was not a legal one until it had been confirmed by each board severally. 2. A second class of districts was formed by single unions electing one of their district medical officers with private practice as medical officer of health. This plan could never work well. The medical officer of health would either do his duty, and lose year by year his best patients, the property-owners; or would shirk his duty, and make friends of the property-owners, and so increase his practice at the expense of his brethren. Thetford and Depwade, in Norfolk, might be taken as instances. 3. A third class of districts was like the second, with the exception of having a different medical officer for the urban districts. Bromsgrove, Kington, and Neath Unions were examples of this class. 4. The fourth class consisted of the small urban appointments with a few pounds as a salary. These were often in the very midst of large districts, and must interfere materially with the efficient working of the Act. 5. Some unions had appointed all their district medical officers to be officers of health. Barnstaple Union had eleven; Swaffham Union, in Norfolk, had five medical officers of health, each with different interests; but certainly it was not the interest of any to prevent disease. 6. Several urban and rural districts had not as yet appointed a medical officer of health. The town of Cambridge and the county of Norfolk had been very remiss in this respect. No mention need be made of the large urban districts, such as Liverpool, Manchester, and many others, which had medical officers of health prior to the passing of the Act of 1872.—Dr. Pitt (Norwich) said it was the fault of the Local Government Board that several unions in Norfolk had not yet made appointments. He was medical officer of health over the Henstead Union, near Norwich, and was able to work it without interfering with private practice; in fact, he rather increased his practice than otherwise.—Dr. Fussell (Brighton) said he found no difficulty in working a large district at Brighton. With regard to district medical officers, he said he ought in justice to say that all except one in his district had given him most generous assistance, and that he was much indebted to them.—Dr. Fox (Chelmsford) could not understand why towns and unions which were without medical officers of health should be allowed to escape the

Act with impunity. He thought there was a very great advantage in having the districts large, and that it was quite possible to work even larger districts than his own with a very little assistance from the district medical officers. With regard to medical officers of health with private practice, it was all very well until they came into collision with their patients. He related a case of a medical officer of health having condemned a piece of meat, and lost the angry butcher as a patient.—Dr. FULLERTON, as an example of the working of the Act, referred to a report from the medical officer of health inserted a few weeks ago in the *Times*, respecting the state of Crawley parish, and he termed this report mild.—Dr. FUSSELL said he could easily explain the observation made by the last speaker respecting Crawley parish and the medical officer's mild letter in the *Times*. He sent a very strong report to the East Grinstead Board on Crawley. A gentleman in that parish sent a short extract of that report to the *Times*. He immediately telegraphed to that paper that he should insert the whole report, and forwarded it to them; but they did not publish it. The town of Crawley consisted of two parishes in two different unions, and this increased the difficulties. He was happy to say they were now being overcome. One of the unions was about to ameliorate the state of the parishes, and had appointed an engineer to carry out the drainage.—The CHAIRMAN (Dr. Bateman) did not think that a medical officer of health could keep himself quite up to the mark without clinical work.—Dr. RUMSEY (Cheltenham) said a few words on the working of the Public Health Act. He maintained that no length of time or experience could essentially amend the working of an Act essentially bad. The organisation created by the Act was greatly defective. Neither the superintending officers of health as sole officers in a combined district, nor the Poor-law medical officers in their respective districts acting singly, could possibly form an efficient system of sanitary inspection. The main fault of the Act was making it compulsory upon all the local authorities to appoint officers of health. Had the compulsory clause been postponed until a good system of appointment had been devised, with the principal officer as superintendent, and the local officers as deputies, and had the Local Government Board both the power and the intelligence to carry into effect such a system, the evils and the anomalies and the failures of the Act might have been avoided. Amendment of the Act was the first necessity. There must be unification of local authority. The State Medicine Committee of this Association was making extensive inquiries on the subject.—Dr. A. P. STEWART thought there was no difficulty whatever in working a large district, provided the medical officer of health acted as a superintendent or inspector. He quoted Mr. Davies' district at Bristol, as an excellent example of the way in which a medical officer of health should work. Mr. Davies had four inspectors under him, taken from the police. They met him every day, and pointed out the plague-spots and nuisances requiring his interference. These four inspectors had subinspectors. This plan had worked well for many years through great epidemics. It was not necessary for the inspectors to meet the health-officer daily. As regarded private practice, the combination worked very well for a while, but could not answer in the long run. The medical man would ultimately suffer materially. He wished to call attention to the schedule which he and others had forwarded to officers of health, making inquiries on the subject; and hoped those who had not filled up the form would kindly do so as soon as possible, and return it. They hoped to turn the matter to good account; but they would not pledge themselves to any one plan without great thought and mature consideration. With regard to payment of district medical officers for assistance rendered to officers of health, he thought that boards of guardians would not pay anything until compelled by law.—Dr. CORNELIUS FOX said that one authority in his district refused to give him any returns of deaths, and thought the Local Government Board should have power to compel them.—Dr. RUMSEY: The Local Government Board had no power; but they ought to have it.—Dr. PITT said that the registrars in his district supplied the returns of deaths regularly every week.—Dr. KENYON thought that, if district medical officers were necessary as deputy health-officers, surely all medical men should be, by the same rule, in the same position. Union medical officers did not usually attend infectious diseases. In his district, he got no real information from the district medical officers, and was not likely to do so. The cases reported were debility, old age, cough, and such-like.—Dr. CORNELIUS FOX remarked that it was not only essential that the Poor-law medical officers should afford information as to preventable disease to central medical officers of health, but what was required was accurate information as to preventable disease generally among all classes, in order that correct conclusions might be arrived at in respect to it. Some of this information might, however, require to be regarded as confidential. At present, the medical officers of his district refused to give any information to the boards of guardians of the kind which he had indicated, unless they were remunerated for so doing.—Mr. JOSEPH LAIDLER related a case where he had lost a patient because, as medical officer of health, he had caused a drain-ventilator to be placed about thirty yards from the man's shop-door. He also expressed an opinion that medical men should be required by law to report every case of infectious disease, in whatever rank of life it might be; and that they should be remunerated for so doing.—Dr. BATEMAN remarked that it seemed to him to be very clear that the feeling of the Section was, that amended legislation was certainly required, and that medical men could not be expected to offer their services unless they were paid.—Dr. ARMISTEAD, in reply, said it seemed certain that a large area could be worked by one medical man, provided it was sufficient to render him independent of private practice. It also seemed clear that a person in private practice could not work even a small district without interfering materially with the profits of that practice. With regard to Dr. Rumsey's recommendation of large areas, it was important that those large areas should have definite boundaries, and that they should not be irregular districts brought together by a combination of unions without any regard whatever to the county boundary; and also that small urban populations should not be allowed to have independent medical officers of health in the centre of rural districts. He agreed with the report of the State Medicine Committee, that one of the principal things necessary was that they should have superintendent medical officers of health over large areas, with the assistance of local medical men, either the district medical officers only, or all the medical men in the district. He could not quite see that it was in any way necessary to style the district medical officers as the medical officers of health.

The disposal of Slops in Country Villages. By CORNELIUS FOX, M.D.—One of the greatest difficulties with which health-officers in rural districts have to contend, arises from the inability to dispose satisfactorily of the slop water. It lies about in ditches, creating the most offensive odours, especially in summer and autumn, when decomposition is most rapid. In country villages, where dry systems of excrement removal have been and are to be carried out, the question often arises, "What are we to do with our slop-water?" Where a dry system of excrement removal has been adopted, one of these three methods have generally been pursued: (*a*) land has been irrigated with it, but this plan would appear to be unsatisfactory, because the manurial value of slopwater is so small; (*b*) filters composed of charcoal, cinders, gravel, etc., have been employed and found to act well; (*c*) the subsoil has been irrigated with slops with most successful results. The Local Government Board proposed that each cottage should utilise its slop-water on its own garden, by passing it through the subsoil in common land drain pipes fitted with a Field's tank. The tank in which all the slop-water accumulates, suddenly empties itself when full by a syphon arrangement, thus preventing the obstruction of the drain-pipes, which is liable to occur when small quantities of slops are dealt with without its assistance. This mode of disposing of slop-water is carried on on a small scale, but most efficiently, in a portion of Dr. Fox's district in Essex. The plan of the Local Government Board, although very excellent in many cases, is not universally applicable. Some cottages have no gardens or only very small ones. Again, the gardens of some cottages rise from the back doors to their extremities. Moreover, the subsoil irrigation of meadow-land is extremely undesirable, if carried on on an extensive scale amongst the country villages of rural districts, as it would probably be attended by an increase in the amount of pulmonary consumption and of other tubercular affections. Neither is it adapted to villages situated on clayey non-porous soils. It should also be remembered, that the rank grass, which is produced by the subsoil irrigation of meadow-land with slops, is hardly a marketable article, being disliked by farmers. Although it might appear somewhat heterodox, Dr. Fox believed it would, in many cases, be wise to carry off the slop-water of villages through the rivers, where dry systems of excrement removal are established. Having been instructed to write a report on a little country village, where Dr. Fox recommended a dry system of excrement removal, and where the slop-water would be rendered very dilute by the admixture of much waste water from a manufactory, he felt strongly that it would be ridiculous to term such a compound sewage. Knowing the penalties incurred by those who introduce sewage into watercourses, and hoping that it might be legal to pass the very dilute slop-water of the village into a neighbouring canal, he asked the Local Government Board the following questions: 1. Is slop-water included under the title of sewage, or does the word sewage imply the presence of fæcal matter? 2. Is it illegal to convey slop-water free from all fæcal matter into a canal solely employed for navigation purposes, in direct communication with the sea, the water of which canal not being employed for drinking purposes? 3. Would it be illegal to convey into a water-course slop-water free from fæcal matter, and rendered odourless by the admixture of a little tar, lime, and chloride of magnesium? The answer of the Local Government Board was that: 1. Mere slop-water, without fæcal matter, is not sewage within the strict meaning of that term. If, however, such water were allowed to flow into ditches, or into ponds, and create a nuisance, it might be dealt with under the provisions of the Nuisances' Removal Acts. 2. The Board do not consider that, under the Sanitary Acts, it would be illegal, under ordinary circumstances, to convey slop-water into a canal communicating with a river or with the sea, if the volume of the slop-water is but small as compared with that of the water in the canal. 3. It might not be illegal, in the sense of an offence against the Sanitary Laws, to convey the slop-water, whether deodorised or not, into a water-course; but in such a case there might occur a breach of private rights.

THE COLLECTION OF INSTRUMENTS IN THE ANNUAL MUSEUM.

THE number of articles exhibited in Class 1, Medical and Surgical Instruments and Appliances, was 384. First to be seen on entering the museum, and certainly not second in point of extent, of variety, and of originality, was the show of Messrs. Salt and Son of Birmingham. It would seem strange that they alone appear to have thought of employing aluminium to any extent, a metal valuable for its physical and chemical qualities, and for its beauty. Here are aluminium catheters, stethoscopes, thermometer-cases, etc. Messrs. Salt exhibited a vaccinator, called the "mitrailleuse"—a name not calculated to allay the terrors of anxious mothers. It is, like most of its rivals, an ingenious instrument, and may be strongly commended to those luxurious practitioners who always employ gilt catheters and patent bandages. There was a thermometer arranged on the principle of an ordinary pencil-case, handy and safe; and a compact, handsome, and strong "telescopic stethoscope", of aluminium and ivory, which shuts up for the pocket. Messrs. Salt's case of subcutaneous syringes, for hospital use, had good features. Each instrument had a flange to render the employment of two hands unnecessary. The aspirators throughout the museum, especially those of Salt and Coxeter, showed some marked improvements, which will just satisfy certain wants of every one accustomed to use the instrument. The rack-and-pinion movement and weighted case of Messrs. Salt, leave the operator one hand free; the cylinder, partly glass and partly metal, of Messrs. Coxeter, allows a more perfect fit to the piston, and leaves the contents of the cylinder still visible. The three taps of Salt and of Maw, and the guarded cannula of Krohne and Sesemann, are also deserving of notice. Salt's sphygmographs permit the pressure to be regulated with ease and precision.

Messrs. Krohne and Sesemann exhibited the following novelties. 1. Allingham's instrument for applying the elastic ligature to rectal fistulæ, with an extra stilet for applying the elastic ligature to tumours. 2. Smith's inhaler for nitrite of amyl. This is an excellent instrument, in which talc and ebonite are very successfully used, the talc being a capital material for a good valve, as it is elastic, and chemically quite indifferent to the corrosive vapour of amyl. 3. An aspirator with a large bottle reservoir connected, and with the admirable guarded needles above referred to. 4. Mahomed's sphygmograph, easily regulated with nicety, always compared with a standard instrument, and fitted with every accessory. 5. The pessaries of Dr. Thomas of New York. 6. Aveling's uterine dilator.

Mr. Pratt exhibited many of those orthopædic instruments for which he is well known. 1. A spinal stay in two forms; the earlier, cheaper and simpler, being Mr. Willett's; the more complicated and dearer (or rather less cheap), and, we must say, more useful, being by Mr. Morrant Baker. We strongly commend these instruments, especially the latter, to all surgeons, as they supply a real want, namely, that of a cheap and good spinal stay for the use of the children of the poor, who form so large a proportion of those who require them. These instruments bear on the transverse, and not on the spinous processes. 2. Holden's splint for genu valgum. This is the old St. Bartholomew's leg-splint, with an additional screw motion at the knee. 3. A boot for flat foot and talipes varus. 4. A thirty-cell battery, very portable, giving electricity in large quantity but of small tension. 5. A "nose-straightener" which, taking the forehead as a fixed point, bears with springs and pads upon any part of the nose. (Mr. Pratt informed us that this instrument was only to be worn during the night.)

Mr. Millikin showed: 1. A modification of Messrs. Arnold's tapering speculum, leaving out the welded ring at the small end. 2. An obstetric bag, beautifully finished, and marked by all the completeness which Dr. Barnes's name would lead one to expect. 3. Mr. Sydney Jones's admirable ovariotomy forceps. 4. A hypodermic syringe whose piston is ingeniously arranged, on a simple plan, so that it never wears loose. 5. Mr. Durham's spear-headed knife for loose cartilage. 6. Urethra-forceps.

Messrs. Maw showed, among other articles, a capital tongue-depressor, and a syringe so guarded by a sponge that its contents, when ejected, cannot spread out upon neighbouring parts. They exhibited also Mahomed's sphygmograph, and Lewin's light-condenser.

Messrs. Mayer and Meltzer kept up their reputation as electricians, by an excellent display of batteries. They showed also: 1. Clover's apparatus for administering nitrous oxide and ether. 2. An actual cautery *écraseur*, kept at an intense heat by a powerful battery, so arranged that the carbon zinc plates are respectively joined together, making a battery of three large cells. The wire of the instrument is almost instantaneously heated by pressing the plates into the cells, and immediately on removing the pressure, the plates spring up and the wire cools. 3. A spinal support. 4. An elegant and ingenious spirometer by Dr. Jagielski. 5. A combined battery, which is the most complete and compact one we have seen, and, being of a low price, is an useful apparatus. 6. A very complete and conveniently arranged minor operating case.

On Messrs. Blaise and Co's table we noticed especially: 1. Davy's lithotomy-net. 2. Godrich's combined aspirator, stomach-pump, and enema. Dr. Jones's inhaler, having a ball-and-socket arrangement for the entrance of air. 4. Mr. Pollock's *écraseur*, with a joint which facilitates the introduction of the instrument into a cavity. 5. Mr. Lee's hæmorrhoid clamp.

Messrs. Evans and Wormull exhibited, among other excellent instruments: 1. A pencil-case thermometer. 2. The handiest and cheapest aspirator we have yet seen. 3. Silk tablets. 4. A pocket vaccinating case. 5. Langenbeck's osteotomes. 6. Fitzgerald's dressing basins of tinned copper. No hospital should be without them; but they ought to be cheaper. They can be fitted so accurately to any part of the body as to completely prevent the escape of pus or blood on the bed-linen.

Messrs. Evans, Lescher, and Evans, sent a small but select assortment of batteries, and a microscope adapted for pharmaceutists.

Messrs. Coxeter and Son showed: 1. A vulcanised hypodermic syringe. 2. An ingenious cautery-lamp by Clover. 3. Coxeter's aspirator (mentioned above). 4. Dr. Hall's modified ball and socket pad for use after labour. 5. Dr. Rattray's dislocation-apparatus. 6. Professor Lewin's powerful light-concentrator. All were of most admirable workmanship.

Messrs. Arnold's was a large show, including many new things. We shall, however, select only six for special attention: 1. Davy's waterproof padding for splints, which is a most admirable material. 2. Dr. Greene's obstetric binder, which does not slip up from the hips to the waist. 3. Dr. Prosser James's tongue-depressor. 4. The tapering speculum, which appears to give a better light, and to be more easily introduced. 5. Tosswill's stomach-pump, 6. An improved amputating saw.

Some of the most interesting and valuable apparatus exhibited were sent by their inventors; for example, Mr. Croft's extremely convenient stretcher, for cases of excision of hip-joint; Mr. Keetley's stretcher for moving a patient, changing his bed and body-linen, dressing bed sores, etc., without causing the least avoidable disturbance or excitement; Dr. Divers' ingenious mechanical contrivance for the use of women in labour, giving fixed points to strain against, and, at the same time, applying pressure to those parts where it is grateful or useful; the ventilating apparatus of Mr. Tossell, of Dr. Shrimpton, and of Mr. Howarth (exhibited by Mr. Pank of Norwich); Major Wethered's invalid lounge (tried and enjoyed by many of the visitors); the same gallant gentleman's fire-escape; Mr. Hardwicke's numerous and instructive exhibition of sanitary plans and diagrams, etc.

We cannot finish this notice without mention of the very interesting collection of Indian instruments sent to this country by Dr. Temple Wright, and lent to the museum by King's College; also of the ancient instruments sent by Messrs. Blaise and Co., and by the Norfolk and Norwich Hospital.

EXCURSIONS.

AFTER the work of the meeting had been got through, a number of pleasant excursions were made on Saturday, August 15th, to various places of interest in the neighbourhood, and full justice done to the hospitality liberally provided.

Swaffham.—A party, consisting of twenty ladies and gentlemen, left for Swaffham, where they were entertained at an elegant breakfast given by the Vicar, surgeons, and other inhabitants, over which the Vicar presided. Ample justice having been done to the many good things, Dr. Rumsey of Cheltenham returned thanks to the hosts, which the Vicar and Mr. Marriott acknowledged. The church was visited, and its general beauty detained the party longer than was calculated on; as did a fine collections of rubbings of brasses, arranged for inspection by a spirited inhabitant. The party then proceeded to Houghton Hall, and, having inspected its many objects of interest, set off for Castleacre. Robert Leeds, Esq., gave an entertainment at Wicken House, such as was never surpassed by any old English gentleman; and there was much regret that time did not allow Mr. Ernest Hart more fully to express the thanks of the Association to Mr. and Mrs. Leeds, as well as the ladies assembled to welcome the party. The castle had to be passed; but the priory was found more beautiful than was anticipated, and the party lingered long amongst the magnificent remains of the past. Tea was provided in one of the old rooms by Thomas Moore Hudson, Esq., over which the Misses Hudson presided, and fully maintained the credit of the Norfolk ladies by their courtesy and attention.

Herringfleet.—Twenty-eight ladies and gentlemen left the Thorpe Station for Herringfleet Hall, where Colonel Leathes personally showed his fine collection of pictures and beautiful grounds. His attention was highly appreciated; and the visit would gladly have been prolonged, had time allowed.

Somerleyton.—At Somerleyton Hall, Lady Crossley most kindly escorted the party round the grounds, and gave a hospitable and sumptuous *dejeûner*. Dr. Thompson of Leamington having returned the thanks of the Association to Lady Crossley, the party went on to Lowestoft, where they were entertained by Messrs. Worthington, and the hospitality of Suffolk to the Association was fully appreciated.

Cromer.—A party of sixty (to which number the excursion was limited), the President being one of the number, left the Norfolk Hotel at 8.30 A.M. for Cromer. Shortly before 9 A.M., a coach and four and three waggonettes with pairs left the city by the Aylsham Road. The village of St. Faith's was quickly passed; and the picturesque woods of Stratton Strawless were seen to perfection, the heather in full bloom, and the bracken glistening in the rays of sunlight that pierced the thickets. At 10.15 A.M., the four vehicles pulled up opposite Aylsham Church, the points of interest of which having been fully explained by Mr. Scott, the party divided for a short time, some being entertained by the Rev. C. H. Aitken, others by Mr. Morton. At 11.30, Blickling Hall was reached. Here Mr. Parmeter and Mr. Wells were awaiting the arrival. Mr. Parmeter himself escorted the party over this fine old baronial hall and grounds, and explained its points of traditional interest and historical importance. A sumptuous luncheon was partaken of, after which Mr. Parmeter in a happy speech expressed his regret that the Marchioness of Lothian was unavoidably absent, but trusted, as her representative, that all had enjoyed themselves.—Mr. E. B. Adams proposed the health of Lady Lothian and a vote of thanks for her generous hospitality, which was carried by acclamation.—Mr. Parmeter and Mr. Wells responded on behalf of the Marchioness.—Mr. Ernest White next proposed the health of the President of the Association, who had honoured them by forming one of the party; and alluded to certain historical facts in connection with Blinkling which had not been previously mentioned.—Dr. Copeman returned thanks; and Mr. Parmeter next proposed the health of the Rev. F. Meyrick, expressing the pleasure all felt at having their much esteemed pastor again amongst them.—Mr. Meyrick thanked them all for their good wishes concerning his welfare.—Dr. Tothergill then proposed, and Dr. Cook responded to, the toast of "The Ladies"; and at 1.30 the party proceeded on the journey to Felbrigg, where the company was cordially welcomed by Mrs. and the Misses Ketton; and very pleasant were the refreshments offered, and the stroll through the conservatories and grounds of this beautiful park. It was with reluctance this mansion was quitted. The party proceeded to Cromer by way of Beeston; and the first view of the sea with the ships in the offing, and the town of Cromer with the lighthouse in the distance, excited the admiration of all. At Tucker's Hotel, a dinner was given by Mr. James Cooper, and presided over by Mr. Bond Cabbell, supported by the Rev. J. Fitch, Vicar of Cromer. After dinner, the usual loyal toasts were proposed and received with enthusiasm; and the Chairman proposed "Prosperity to the British Medical Association", coupling with the toast the name of Dr. Copeman, its President.—Dr. Copeman, in replying, expressed the hope that all had been satisfied with the transactions of the week, and thanked the inhabitants of Cromer for the kind reception they had given to the Association. In conclusion, he proposed the health of Mr. James Cooper, their host, which was received with three times three.—Mr. Cooper returned thanks, and proposed "The Ladies", coupling with it the name of Mr. Ernest White, the captain of the excursion.—Mr. White responded, expressing the hope that all were satisfied with the arrangements.—Mr. E. B. Adams then proposed the health of the Chairman; and Mr. Bond Cabbell, in reply, thanked Mr. Adams for the terms in which he had alluded to his uncle, and expressed the pleasure it had afforded Mrs. Cabbell in receiving the members of the Association at Cromer Hall. At 7 P.M., the homeward journey was commenced; and, on Aylsham being reached, the company was received by Mr. and Mrs. Prangley, who had provided tea and refreshments. The party returned to Norwich at 11 P.M., every one being satisfied with the completeness of the arrangements made by the Excursion Committee.

ASSOCIATION INTELLIGENCE.

SHROPSHIRE SCIENTIFIC BRANCH.

THE annual meeting of the above Branch will be held in the Natural History and Antiquarian Museum, at Shrewsbury, on Wednesday, September 9th, at 1.30 P.M.; WM. EDDOWES, Esq., jun., President.

Papers on Hydrophobia and Chorea will be read, and others are promised.

The dinner will take place at the George Hotel at 4.30 P.M.

SAMUEL WOOD, *Honorary Secretary.*

Shrewsbury, August 14th, 1874.

NORTHERN COUNTIES (SCOTLAND) BRANCH.

THE annual meeting of this Branch will be held in the Royal Hotel, Inverness, on Saturday, September 12th, at 11 A.M. J. J. Ross, Esq., M.D., of Inverness, *President.*

Particulars by circular.

The Council will meet in the same place at 10 A.M.

J. W. NORRIS MACKAY, *Honorary Secretary.*

Elgin, August 25th, 1874.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at Saltburn-by-the-Sea, on Thursday, September 17th, at 1.30 P.M.; Andrew Legat, M.D. *President.*

The following papers have been promised.

1. Dr. H. J. Yeld: The Health and Mortality of Towns and Villages, as affected by Sanitary Legislation.
2. Dr. J. W. Macdonald: Catarrhal Pneumonia.
3. Dr. J. W. Eastwood: Case of Insanity, complicated with partial Paralysis.
4. Mr. J. T. Parkinson: Case of Chronic Bright's Disease of the Kidneys (small contracted variety).
5. Mr. J. T. Parkinson: Case of Paracentesis Thoracis.
6. Dr. G. H. Philipson: Case of Hydatid Disease of the Liver, treated by puncture.

Gentlemen who desire to make communications at the meeting are requested kindly to communicate with the Secretary without delay.

Dinner at the Alexandra Hotel, Saltburn, at 4 P.M. Tickets, exclusive of wine, six shillings.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, August 26th, 1874.

SHROPSHIRE ETHICAL BRANCH.

THE Annual General Meeting will be held at the Lion Hotel, Shrewsbury, on Monday, October 5th, at 1 P.M. The President, W. A. DAVIES, Esq., in the Chair.

Subjects for Discussion.—The Revised Tariffs of Medical Fees; The Proposed Tariff of Surgical Charges; The Suggested Preface thereto. Cases and communications by members.

Dinner will be served at 3 P.M., for the convenience of the country members. Tickets, exclusive of wine, 7s. 6d.

Members have the privilege of introducing friends, on transmitting their names to the President.

Chamber Concert Music by a select Band of Musicians, under the leadership of Mr. Appleby of Liverpool, will be provided, as usual.

Gentlemen intending to read papers, etc., will oblige by communicating their titles (for insertion in the 'circular note' of invitation), before the 8th proximo, to

JUKES STYRAP, *Honorary Secretary and Treasurer.*

Shrewsbury, August 31st, 1874.

MIDLAND BRANCH.

A SPECIAL general meeting of the above Branch will be held at Boston, on Thursday, September 24th; T. SYMPSON, F.R.C.S., President.

To consider and adopt certain laws for the regulation of the Branch; and other business.

Members desirous of reading papers, are requested to communicate at once with C. HARRISON, *Honorary Local Secretary.*

Lincoln, August 31st, 1874.

CORRESPONDENCE.

THE DISCOVERY OF THE MECHANISM OF FLIGHT.

SIR,—Being evidently one of the very few who have carefully read Dr. Pettigrew's original memoir on flight in the *Transactions of the Linnean Society*, as well as the works of M. Marey, I put pen to paper entirely in support of the statements made in your JOURNAL by "A Physiologist", and to repeat that to M. Marey alone is due the credit of the discovery of the now generally accepted theory of the figure-of-8 movement of the wings in flight.

Dr. Pettigrew, in his letter last week, remarks that Dr. Brunton, in a testimonial recently given, supports his claim. No one more than myself is willing to do justice to Dr. Brunton's scientific acumen; nevertheless, on this point it is certain that that able physiologist has given an off-hand opinion, without studying the subject; otherwise he would never have been "proud to think that the credit of first discovering the mechanism of flight is fairly and admittedly due to an Englishman", but would have regretted with some that one of the ablest of living physiologists, a Frenchman, was not receiving the credit which he justly deserves.

So certain am I on the subject, that, if Dr. Pettigrew will publish the paragraphs from his original memoir in the *Transactions of the Linnean Society*, on which he rests his claim, I will undertake to prove that they have no bearing on the theory established by M. Marey.

I am, etc., ANOTHER PHYSIOLOGIST.

THE TREATMENT OF OUT-PATIENTS.

SIR,—Mr. Wagstaffe's letter will not do much towards removing the obscurity which still hangs over the case of caries of the occipito-atloid articulation treated at St. Thomas's Hospital, while it adds some new points of difficulty to it. For instance, in the report of the case furnished to your contemporary by the registrar of the hospital, it is stated that, on the afternoon preceding the poor lad's death, "when the liniment was being rubbed into his neck", he screamed terribly. Mr. Wagstaffe says it will be obvious to most persons that this liniment which was rubbed into the neck was a lotion intended for the head; but he does not explain why the registrar calls it the liniment (which, as he had previously explained, consisted of ammonia and oil, and had been used before the boy applied at the hospital, and, of course, before the lotion of bichloride of mercury had been ordered), nor why the patient's friends neglected his head, where the application, be it lotion or liniment, would have been comparatively harmless, in order to rub in, spite of his screams, to the one part of his body which, like the heel of Achilles, was specially vulnerable.

Of course, I am quite aware that, in seeing large numbers of out-patients, obscure cases are sometimes unavoidably overlooked; but it is, I think, quite open to question whether a case should be considered obscure in which the leading symptoms of a disease, as they are described in surgical text-books, have been present for months; and most surgeons who have seen even a little of this disease will, I think, agree with me that the peculiar position of the head assumed by patients affected with it, if once observed, is not easily forgotten.

The other case to which I am referred by your correspondent will not, I fear, help him much. It is recorded in the *Lancet* of August 8th, and is preceded by some editorial remarks containing a covert allusion to my letter, in terms almost identical with those used by your correspondent. In this case, however, the disease occurred in an imbecile, and it is evident that no reliance could be placed on the patient's account of his subjective symptoms, nor could his throat even be examined, "on account", as the report says, "of the stupidity of the patient"; the treatment, however, was so far superior to that adopted at St. Thomas's, that he was ordered to bed a week before his death, and was thus to some extent secured the rest which all authorities are agreed is the one thing absolutely necessary in treating this disease. Even with this case, such as it is, to fall back upon, I suppose that neither Mr. Wagstaffe nor his friend on the *Lancet* staff will contend that the disease, in an advanced stage, is undiscoverable by ordinary surgical skill, or that a patient suffering from it, who applies for admission at St. Thomas's Hospital, can be considered to have been thoroughly examined when some pediculi are discovered on his head, or efficiently treated when his hair is directed to be cut short, and a lotion of bichloride ordered to be applied.

I am, etc., H. NELSON HARDY.

21, Fitzroy Square, August 26th, 1874.

LEAD-POISONING BY AERATED WATER.

SIR,—In noticing my case of lead-poisoning by soda-water in your last number, you refer to a similar experience of a Fellow of the Royal Society, published in your JOURNAL of February 14th. He seems, however, to have had his suspicions directed only to the waters contained in syphon-bottles, and to have confined his investigation entirely to them; while in my case the liquid was contained in ordinary soda-water bottles, corked and wired in the usual way, and must, therefore, have been contaminated with the lead through coming into contact with that metal during the process of manufacture. It is evident, therefore, that the evil is more wide-spread than was supposed by your correspondent; and it is to be hoped that the manufacturers of these waters will at once investigate the matter, so as to discover and remove the source of the poison, or the result may be the ruin of their trade.

As the account of my case was written for the columns of a newspaper, as a warning to the public, and was necessarily, therefore, deficient in detail, perhaps you will allow me to supplement it with some details of the symptoms, etc., which are, I think, of some interest in a medico-legal point of view.

My patient is the wife of a landed proprietor, is forty years of age, and has always, until the present illness, enjoyed vigorous health. It is about four months since I was called to the case, when the symptoms she presented were as follow: severe pain of a twisting, indescribable character, in the umbilical region, not aggravated by pressure; nausea, with occasional vomiting of bilious matter, and sometimes of a bluish fluid, mixed with ropy mucus; sense of fulness and weight in the hypogastrium; acute pains running along the course of the nerves of the lower extremities—"weary, weary pains", as my patient graphically described them, which effectually prevented sleep. The tongue was coated with a whitish fur; the bowels were constipated, and the fæces were of a sooty-black colour; urine generally normal, but occasionally loaded with sediment, at which times there was considerable irritability of the bladder; skin cool and moist, both it and the conjunctivæ had a decidedly yellow tinge; temperature in the axilla 98; pulse 92, weak and compressible; tenderness on pressure in the epigastrium. Examination *per vaginam* showed the uterus to be slightly congested, but otherwise healthy.

Under treatment directed to improving the secretions of the liver and alimentary canal, with counterirritation to the abdomen, the patient speedily improved, but soon fell back, with similar symptoms of even a more aggravated character; and so the case continued for upwards of two months, with alternate periods of exacerbation and improvement, until one day the patient drew my attention to the fact that she could not control her pen in writing as she formerly did; and, on examining her hands, I found that the extensor muscles of the ring and middle fingers of both hands were paralysed. I then looked at her gums, and found a distinct blue line on the inside of the gum of the lower jaw where it joins the teeth. Being on the inner side, it had escaped observation before. The case was now clear, and I at once told my patient and her friends that she was being slowly poisoned with lead. The question now arose, What was the source of the poison? and for about three weeks it was a cause of great anxiety to me. She was the only one of the household affected; and, so far as the patient and friends knew, she had been taking nothing in the way of food or drink of which the other members of the family did not also partake. Here I may mention that the patient stated that for some months previous to her illness she had had occasional attacks of sickness and vomiting after leaving the dinner-table.

The house had been fitted with new lead pipes for conveying the water-supply about a year ago; and, thinking that the poison might be derived from that source, I had the water analysed, but it was found to be free from the least trace of lead. Some wine of which she had used more than the others, and various other things, were examined, with a like result. I was now at my wits' end about the matter, and began to suspect that some one was deliberately poisoning my patient; and, as she began to improve a little after I had spoken about the poisoning, my suspicion was rather confirmed. I now had a consultation with my friend Professor Leishman of Glasgow on the case, and he concurred with me in the opinion that the case was one of well-marked lead-poisoning.

At length, it occurred to me that she had been using soda-water freely, with ice, and occasionally a little brandy, to relieve her sickness and thirst; and I immediately had some of it examined, with the result, as stated in your last, that lead was found in it to the extent of nine-tenths of a grain in a gallon. On inquiring, I found she had been taking about six or seven bottles every twenty-four hours (with occasional intermissions, which corresponded with the periods of improvement); and that, for some months previous to her illness, she had used it largely as a beverage; so that the quantity of lead she had imbibed on the whole must have been very considerable.

The patient is now slowly improving; but the paralysis of the extensor muscles of the forearms, the blue line on her gums, and persistent want of appetite, amounting to loathing of food, still continue. As may be readily supposed, she has been reduced to a state of great debility, and it will evidently be a long time before her recovery is complete, if ever she get rid of the effects of the poison with which her system has been saturated.

The case, I think, is a very instructive one, and perhaps you will kindly allow me to place it on record in the pages of your JOURNAL.

I am, etc., A. T. WILSON.

Lennoxtown, Campsie, August 31st, 1874.

HARD WATER AND VESICAL CALCULUS.

SIR,—In this locality, the water is very hard, and obtained directly from the Silurian limestone; but vesical calculus is of rather unfrequent occurrence, which is accounted for by little water being drunk. Even the women and other large tea-drinkers, by boiling the water, precipitate the excess of lime. Good Templarism is a recent institution here, so the effects of their libations on its devotees cannot yet in this respect be ascertained. Generally, however, cold spring-water is imbibed only as an occasional luxury; there being a curious but not uncommon fear of drinking too much of any other beverage than cider, perry, wine, beer, and spirits. It would be an interesting inquiry, how far similar fears operated to account for the absence of calculus "in some of the villages near Wirksworth, in which the water is very hard, and obtained directly from the limestone". This inquiry might also with advantage be directed to any other locality free from stone.

Can any one tell me of any other common source of infantile mammary abscess than the ignorant attempt to "break the nipple-strings"? I am, etc., S.

Ledbury, September 1874.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

SIR,—I have read with much interest the report of the proceedings of the deputation presented to the Secretary of State, and all must feel indebted to Mr. Ernest Hart for his able advocacy of the claims of army medical officers to fair and equitable treatment. I am induced to offer my opinion upon the proceedings, because it appears to me that sufficient prominence was not given to the fact, that *retirement* is the only remedy for our condition. Encourage retirement, and you hasten promotion. Reward the men who have served you well, and you infuse life and tone into the department.

The warrant of 1873 has been a serious injury to our service. I believe it will eventually ruin the position of the medical officer. It has already greatly damaged his *prestige*, because it has promoted a number of men for whom there is no charge; hence it has lessened their responsibility and position. Look at the Army List; you will see young assistant-surgeons in charge of regiments, while there are men of twenty years' service in charge of batteries, rest-camps, etc., and content to hold such charges.

I say no surgeon should hold permanent charge of a regiment unless he be promoted, and no surgeon-major should hold a surgeon's charge after he is promoted. Hence I regard the "guarantee of promotion at a fixed time" as wrong in principle, ruinous in practice.

Rapid retirement, and, to this end, the opening of some appointments to distinguished men as inducements to retire, is the surest way of contenting the army and improving the status of the medical officer. I can assure Mr. Hardy that, if he will look into the matter, he will find it would be a positive gain to retire the many highly paid men drawing colonel's pay and allowances, who would be replaced by surgeons-major at present doing assistant-surgeons' duties (subalterns' duties on majors' pay). There are many now in India drawing £1000 a year with only inferior charges. If this be not an extravagant way of doing business, I am under a great delusion; and part of the delusion is, that this arrangement is most injurious to individual members, as well as to the department itself, and that it will inevitably injure the respect for and the position of both.

The sooner this cry for promotion by length of service is given up the better. I am one of those who have profited by it, yet no one regrets it more than myself. Promote only by vacancy, and let every man promoted be a surgeon-major in deed as well as in name—in position and responsibility as well as in pay. Let there be no underhanded work about it. Do not pretend to promote a man a few months before his time, and deprive him of £100 a year for life by taking his horse-allowance and groom away from him, and making his high-sounding title and brass spurs a hollow sham. By all means, let us have consolidated allowances *de jure*, and no more of this fanciful legislation.

The mess and band regulations are altogether faulty. Medical officers should be honorary members always. The Horse Guards is too sharp for us as a body; for unfortunately so many of us are fond of gold lace, and lose our rights as a professional body in consequence. I hear the messes are making a good thing of it, for they are now attaching all spare surgeons-major to some regiment in the station, however they may be employed.

I hold that a medical officer should have no responsibility for stores; if he have, surely, like the quartermaster, he should get £30 a year as an equivalent. I am, etc., A SURGEON-MAJOR.

ARMY HOSPITAL SERVANTS.

AMONG numerous minor instructions and regulations just issued by the War Office, is the following.

In military hospitals, which have not yet been provided with the services of the Army Hospital Corps, under Paragraph 4, Clause 44, Army Circulars, 1873, or when, in consequence of some sudden emergency, the services of the Army Hospital Corps are temporarily withdrawn, the following will be the staff of hospital servants authorised to be employed, viz.:—(*a.*) When the sick do not exceed five, one non-commissioned officer and one private. (*b.*) When the sick exceed five and do not exceed ten, one non-commissioned officer and one private, and one private as cook. (*c.*) When the sick exceed ten, one non-commissioned officer and one private as cook, with orderlies at the rate of one for every ten patients; and when the sick exceed fifty, a non-commissioned officer may be employed as cook, with one private as assistant-cook. These establishments will suffice for the performance of all the subordinate duties appertaining to the Army Medical Department under Clause 44, Army Circulars, 1873.

The remuneration admissible for these establishments will be that laid down in Article 11 of the royal warrant of February 18th, 1874 (Clause 23, Army Circulars, 1874). Special orderlies in excess of the numbers specified in Paragraph 1 will only be employed with the sanction of the principal medical officer, who will in such cases report the circumstances under which he approved their employment to the Director-General of the Army Medical Department, for the information of the Secretary of State. Paragraph 212, Purveyor's Regulations, and Clause 123, Army Circulars, 1869, are hereby cancelled.

CANDIDATES' MARKS.

SIR,—Can you say if the marks given to the candidates for the Indian Medical Department, when passing out from Netley, are supposed to be of equal value with those given to the candidates for the army medical service? If they be, we have a strong proof of the deteriorating effect of the treatment which the latter department has received at the hands of the authorities on the class of candidates applying for admission.

The highest marks for the Indian service at the last examination were	5868
The lowest	3602
The highest given to candidates for the army medical service were	4841
The lowest	2887

I do not see why a British soldier should have a medical officer of inferior qualification to look after his health, while the superior class is told off to look after native soldiers, gaols, and dispensaries in India. Well, all I have to say to the men who take the lower place—"Serve them right, why did they 'list?" when all the bad treatment which they will surely receive has been so clearly stated to them. Still worse, at the last examination (August 10th) for the army medical service, the highest mark was only 2525, and a man succeeded with a mark of 1395, I think lower than any previously admitted.

I am, etc., AMICUS CURIÆ.

ARMY MEDICAL DEPARTMENT: SIX MONTHS' SICK LEAVE.

SIR,—As many questions are agitating the department at present, allow me to suggest that the whole question of sick leave for army medical officers should not be lost sight of.

If combatant officers can obtain long periods of sick leave, it is only fair that medical officers should be treated in an equally liberal manner. If the authorities will not do so, they might at least allow half-pay from sickness to count the same as full-pay service towards promotion and retirement. To place one officer on half-pay after six months' sick leave and count his half-pay service against promotion and retirement, while another gets say fifteen months on full-pay (I write under correction) and all counted as service, is gross injustice.

I am, etc., FAIR PLAY.

NAVAL MEDICAL APPOINTMENTS.

Staff-Surgeon F. W. Davis, to the *Audacious*.

Staff-Surgeon, second class, A. Cooper, additional, to the *Royal Adelaide*.

Surgeon I. Hanbury, to the *Narcissus*.

Surgeon E. Meade, to the Chatham Division of the Royal Marines.

Surgeon R. C. Lawrenson, to Portsmouth Dockyard.

Surgeon W. H. Stewart, M.B., to the *Audacious*.

Surgeon E. H. Saunders, to the *Audacious*.

Surgeon R. A. Mowll, M.D., to the *Caledonia*.

Surgeon T. Browne, M.D., additional, to the *Royal Adelaide*.

Staff-Surgeon A. B. Johnson, second class, to the *Aboukir*.

Staff-Surgeon John S. Lewis, second class, to the *Penelope*.

Surgeon Donald McIvor, M.D., to the *Caledonia*.

Surgeon Robert Turner, to the *Topaze*.

Surgeon John F. Enright, to the *Indus*.

Surgeon A. B. Trousdell, to the *Orwell*.

Surgeon James A. Collot, to the *Repulse*.

Surgeon Robert Bentham, to the *Glasgow*, additional, for disposal.

Surgeon H. B. Collins, to the *Audacious*, additional, for disposal.

OBITUARY.

JAMES REYNOLDS TAYLOR, M.D.

WE regret to announce the death of Dr. James Reynolds Taylor of Wicklow, after a short illness. His early professional career embraced service in both the kingdoms of Portugal and Spain, and was a distinguished one. In the former, during the Miguelite war, he was present at the siege of Oporto, when he occupied the position of one of the Surgeons in Ordinary to Don Pedro, Prince Consort of the Queen Donna Maria da Gloria; and in the latter, that of Medical Staff-Officer to the British Legion under Sir De Lacey Evans in the first Carlist war of succession. Being attached to General Swan's brigade, he took part in the severe action at the storming of the lines of St. Sebastian, in the advance on Vittoria, the battle of Hernani and Irunn, with the affairs at Fuentarabia and others. In both these services, his energy and medical skill met with the rewards they richly merited. Settling as a medical practitioner in the Newtown-Mount-Kennedy district, his true wealth of feeling for his fellow-man, his open hand, and his high qualities, endeared him to a large circle of friends.

HENRY CAUTLEY, F.R.C.S.

MR. CAUTLEY died on August 16th, at his residence at Hedon, Yorkshire, at the ripe age of seventy-six years. Mr. Cautley was the son of the Rev. John Cautley, a Yorkshire clergyman. Having received a liberal education, he was placed as a pupil with the late Dr. Matterson of York, and at the expiration of his apprenticeship was admitted a member of the Royal College of Surgeons and licentiate of the Apothecaries' Company. When twenty-two years of age, Mr. Cautley was unanimously elected House-Surgeon to the Halifax Infirmary, which appointment he held for two years, when he commenced practice at Hedon, which he carried on with success for upwards of fifty years. For the last two or three years of his life, in consequence of failing health, Mr. Cautley gradually retired from practice in favour of his son, who died after a short illness, about eight months ago, in the prime of life. Mr. Cautley was a man greatly respected by a large circle of friends, and, during a long and useful life, took an active interest in all matters conducing to social progress and improvement.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—1874. First B.Sc. and Preliminary M.B. conjointly. Examinations for Honours.—Chemistry.

First Class.

Munro, J. May Herbert, First B.Sc. and Prel. Sci. (Exhibition), College of Science, Dublin

Second Class.

Uhthoff, John Calwell, Prel. Sci., Guy's Hospital
Wilkinson, Arthur Thomas, Prel. Sci., Owens College Medical School
Smith, Alfred John, First B.Sc., Owens College

Third Class.

Capper, Thomas, First B.Sc., private study
Tilly, Alfred, Prel. Sci., St. Mary's Hospital
Smith, George, First B.Sc. and Prel. Sci., Royal School of Mines
Crow, John Kent, First B.Sc. and Prel Sci., Owens College
Gill, Richard, First B.Sc. and Prel. Sci., Royal Institution School, Liverpool
Berry, Frederic Haycraft, Prel. Sci., Guy's Hospital
Wiglesworth, Joseph, Prel. Sci., Liverpool School of Medicine
Maylard, Alfred Ernest, Prel. Sci., Guy's Hospital
Sedgefield, Arthur Robert Wyatt, Prel. Sci., King's College
Wainewright, Robert Spencer, Prel. Sci., Guy's Hospital

Zoology.

Second Class.

Hill, Alexander, Prel. Sci., University College

Third Class.

Castle, Hutton, Prel. Sci., St. Thomas's Hospital
Gill, Richard, First B.Sc. and Prel. Sci., Roy. Inst. School, Liverpool
Wilkinson, Arthur Thos., Prel. Sci., Owens College Medical School } equal
Williams, Dawson, Prel. Sci., University College
Smith, George, First B.Sc. and Prel. Sci., Royal School of Mines
Wiglesworth, Joseph, Prel. Sci., Liverpool School of Medicine } equal
Boulting, William, Prel. Sci., University College
Saise, Walter, First B.Sc, Royal School of Mines } equal
Shaw, John, Prel. Sci., St. Thomas's Hospital
Davies, William Edward, Prel. Sci., University College
White, Augustus Henry Scott, First B.Sc. and Prel. Sci., Univer. Coll. } equal

Experimental Physics.

Second Class.

Tilly, Alfred, Prel. Sci., St. Mary's Hospital

Third Class.

Gill, Richard, First B.Sc. and Prel. Sci., Royal Institution School, Liverpool

Botany.

Third Class.

Munro, J. May Herbt., First B.Sc. & Prel. Sci., Coll. of Science, Dublin
Whitney, Nevile Scott, Prel. Sci., University College } equal
Castle, Hutton, Prel. Sci., St. Thomas's Hospital
Robertson, David, Prel. Sci., private study
Wilkinson, Arthur Thos., Prel. Sci., Owens College Medical School } equal
Wiglesworth, Joseph, Prel. Sci., Liverpool School of Medicine
Davies, Wm. Edward, Prel. Sci., University College
Williams, David James, Prel. Sci., University College } equal

MEDICAL VACANCIES.

THE following vacancies are announced:—

ACHILL, co. Mayo—Admiralty Surgeon and Agent.

ATKINSON-MORLEY CONVALESCENT HOSPITAL—Resident Medical Officer: £75 per ann., furnished rooms, and board. Applications, 7th October, to Charles L. Todd, Secretary, St. George's Hospital.

BALLYSHANNON UNION, co. Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ballyshannon Dispensary District: £95 per annum, and fees. Applications, 19th instant, to Robert Reynolds, Honorary Secretary, Mullins, Ballyshannon.

BRADFORD (Yorkshire) EYE AND EAR HOSPITAL—Assistant-Surgeon: £52:10 per annum. Applications, 8th instant, to Wm. Maw, Secretary.

BRISTOL GENERAL HOSPITAL—Physician's Assistant: £50 per annum, board, lodging, etc. Applications, 24th inst., to Henry Fox, R.N., Secretary.

CARLISLE DISPENSARY—Assistant House-Surgeon: £90 per annum, with apartments, coal, gas, and attendance. Applications to Mr. Davidson, Honorary Secretary, 8, Devonshire Street, Carlisle.

CATHCART, Renfrewshire—Parochial Medical Officer and Public Vaccinator, and Medical Officer of Health: about £45 per annum. Applications, 19th instant, to John Athya, Chairman, Kicklinton, Langside.

DORSET COUNTY HOSPITAL—House-Surgeon: £70 per annum, with £10 per annum additional as Secretary, apartments and board.

EASINGWOLD UNION, Yorkshire—Medical Officer for the Stillington District £42 per annum.

GLAMORGAN COUNTY ASYLUM, Bridgend—Assistant Medical Officer: £125 per annum, furnished rooms, board, and washing.

GLOUCESTER COUNTY PRISON—Surgeon: £175 per annum. Applications, 15th instant, to George Riddiford, Clerk of the Peace, Gloucester.

GOLCAR, Linthwaite, Longwood, Marsden-in-Almondbury, Marsden-in-Huddersfield, Scammonden, and Slaithwaite Urban Sanitary Districts, combined—Medical Officer of Health. Applications, 5th instant, to J. B. Robinson, Chairman, Marsden.

GREAT NORTHERN HOSPITAL—Physician-Surgeon. Applications, 15th instant, to A. Phillips, Secretary.

HUNTINGDONSHIRE COUNTY HOSPITAL, Huntingdon—Medical Officer. Applications, 15th instant, to R. H. Gatty, Honorary Secretary.

KILKENNY UNION—Medical Officer and Public Vaccinator for the Tullarson Dispensary District: £100 per annum, and fees. Applications, 7th instant, to Thomas Dillon, Honorary Secretary.

KINGTON UNION, Herefordshire—Medical Officer and Public Vaccinator for the Eardisley District: £20 per annum, and fees. Applications, 18th instant, to Anthony Temple, Clerk.

LUNESDALE UNION—Medical Officer for the Workhouse and Hornby District: £30 and £70 per annum, and fees, respectively. Applications, 8th inst., to Robert Stephenson, Clerk.

NARBERTH UNION, Pembrokeshire—Medical Officer for the No. 2 or Begelly District: £35 per annum.

NEWCASTLE and GATESHEAD PROVIDENT MEDICAL SOCIETY—Surgeon. Applications, 8th instant, to the Honorary Secretary, 24, Eldon Square, Newcastle-on-Tyne.

NEWCASTLE-ON-TYNE INFIRMARY—Senior House-Surgeon, and Junior House-Surgeon, if present one should be appointed Senior. Applications, 15th instant, to R. Y. Green, Secretary.

NEWPORT UNION, co. Mayo—Medical Officers for the Ballycroy and Achill Dispensary Districts: £100 per annum, each. Applications, 15th instant, to John Carr, Honorary Secretary, Mweelan, Achill.

NORTHAMPTON GENERAL INFIRMARY—Dispenser: £100 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL—Resident Medical Officer. Applications, 7th instant, to A. Boodle, Secretary.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—House-Physician: £80 per annum.

ST. GEORGE'S HOSPITAL—Visiting Apothecary. Applications, 14th October, to C. L. Todd, Secretary.

SAMFORD UNION, Suffolk—Medical Officer for the Stratford District: £40 per annum.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Out-door Dispenser: £75 per annum to commence.

SOUTHPORT CONVALESCENT HOSPITAL—Resident Medical Officer and Superintendent: £80 per annum, rising to £100, board, lodging, etc. Applications, 21st instant, to the Chairman.

STOCKPORT URBAN SANITARY DISTRICT—Medical Officer of Health and Public Analyst: £150 for one year, office, and stationery. Applications, 14th instant, to Walter Hyde, Town Clerk.

SUNDERLAND and BISHOPWEARMOUTH INFIRMARY and DISPENSARY—Junior House-Surgeon: £60 for first year, yearly increase of £10, board and residence. Applications, 24th instant, to J. Kitto, Secretary.

THREE COUNTIES' LUNATIC ASYLUM, Arlesey—Resident Medical Superintendent: £600 per annum, furnished house, etc. Applications, 21st inst., to F. G. Butler, Clerk to Committee of Visitors, St. Neots, Hunts.

TONG STREET URBAN SANITARY DISTRICT—Medical Officer of Health: £20 per annum, for three years.

TOXTETH PARK, Liverpool—Assistant Medical Officer to the Workhouse and Infirmary: £100 per annum, rations, and apartments. Applications, 16th inst., to J. Moulding, Clerk, 15, High Park Street, Liverpool.

WATERFORD UNION—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Woodstown Dispensary District: £100 per annum, and fees. Applications, 11th instant, to Garret Meade, Honorary Secretary, Crooke, Passage East.

WESTMEATH COUNTY INFIRMARY—Medical Officer. Applications, 17th instant, to J. Swift, Treasurer.

YORKSHIRE LUNATIC ASYLUM—Resident Medical Superintendent: £300 per annum, house-rent and taxes free; coals, gas, vegetables, milk, and washing provided; £150 will be expended on substantial furniture. Applications, 19th instant, to the Committee, under cover to R. D. Horne, Clerk.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BOTT, William G., L.R.C.P.Ed., appointed Surgeon to the Farringdon General Dispensary.

BOULGER, Isaac, M.R.C.S., appointed Resident Medical Officer to the General Infirmary, Macclesfield, *vice* C. E. Hardyman, M.R.C.S.Eng., resigned.

HARRIS, William, L.R.C.P.Ed., elected Medical Superintendent of the Lunatic Asylum, Norwich.

PRINGLE, Henry T., M.D., appointed Medical Superintendent of the Glamorganshire Lunatic Asylum, *vice* D. Yellowlees, M.D.

REID, George, M.B., appointed House-Surgeon and Secretary to the Staffordshire General Infirmary, Stafford, *vice* W. H. Dudley, M.R.C.S., resigned.

SPENCER, William H., M.B., appointed Lecturer on the Principles and Practice of Medicine in the Bristol Medical School, *vice* E. L. Fox, M.D.

WILLIAMS, W., M.D., appointed Senior House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* W. R. Hughes, L.R.C.S.I., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

BURNS.—On August 29th, at 48, Whitevale Street, Glasgow, the wife of Dr. William McGregor Burns, of a daughter.

PALMER.—On August 24th, at 120, King's Road, Chelsea, the wife of J. Foster Palmer, L.R.C.P.Lond., of a daughter.

DEATHS.

BALLARD, Thomas, M.D., late President of the Hanoverian Society, at No. 10, Southwick Place, Hyde Park Square, aged 56, on September 1st.

*BINDLOSS, James Backhouse, M.R.C.S.Eng., late of Prestwich, near Manchester, at Cheadle, Hulme, Cheshire, aged 45, on August 22nd.

CONOLLY, M. A., M.R.C.S.Eng., at High Street, Camden Town, aged 43, on August 25th.

HAWKINS, James, M.R.C.S., at Colet Place, Commercial Road East, on August 27th, aged 80. Mr. Hawkins was a Staff Assistant Surgeon at Waterloo.

JAMES, Edward, M.D., late of Presteign, Radnorshire, at Edgbaston, aged 67, on August 18th.

SMEATHMAN, George T., M.R.C.S., at Great Missenden, Buckinghamshire, aged 54, on August 2nd.

LONDON HOSPITAL ROWING CLUB.—A rowing club has lately been formed at the London Hospital, and has received the most active support of both staff and students. Dr. Andrew Clark is President.

MR. CHARLES LEWIS.—At the Quarterly Court of Governors of the General Infirmary, Northampton, Sir Rainald Knightley, Bart., M.P., in the chair, the following resolution was passed unanimously. "That this Board, having had reported to them from the weekly Board the resignation by Mr. Charles Lewis of the office of House-Surgeon, which he has filled for the last year and three-quarters, would express their high estimation of Mr. Lewis's personal character, and of the skill, carefulness, and kindness with which he has ministered, under the honorary physicians and surgeons, to the patients in the Infirmary."

ANTI-VACCINATION DEMONSTRATION.—An extraordinary demonstration against the vaccination laws has taken place in Gainsborough, to express sympathy with George Airthorpe, a working man, on his release from prison, whither he had been sent for refusing to have his child vaccinated. Airthorpe was drawn through the town by his fellow-workmen. At a mass meeting held afterwards in the market-place, memorials to Mr. Disraeli and Mr. Sclater-Booth, demanding the repeal of the vaccination laws, were adopted, and Airthorpe, who presided, was presented with a purse of money. The meeting was attended by between three and four thousand persons.

NURSES' PERQUISITES.—Margaret Naughtern, sick-nurse, was charged at Clerkenwell, on August 27th, with stealing various articles of clothing which had belonged to a patient whom she had nursed in her last illness. The sister of the prosecutor stated that the prisoner had told her that she was entitled to the bed-clothes in which the patient died. She did not give the prisoner leave to take the things, but she thought it was usual for the nurse to take such articles as her perquisites. The magistrate remarked that, after the evidence, he should not now convict the prisoner; but she must be careful for the future. It was idle for her or any other nurse to think that they could take away valuable articles as perquisites simply because they had nursed the person to whom they had belonged. The property found by the police at the prisoner's residence must be given up.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
FRIDAY.........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

FOR the notes of a case of cerebral apoplexy in a boy, published in last week's JOURNAL, we were indebted to Mr. W. Odell.

DR. W. B. MUSHET (New Brighton).—The question as to the validity of an inquest when one at least of the jurors is not a householder is an entirely legal one, on which we can scarcely express an opinion. Our correspondent should consult his solicitor on the subject.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MR. J. R. H. ANDERSON (Whitehaven) will find the information he requires in the Educational Number of this JOURNAL, which will be published on September 12th.

ERRATUM.—In Mr. G. Brown's letter at page 260 of the JOURNAL for August 22nd, line 5 of the second paragraph, for "nerve-membrane" read "new membrane".

Practice in the Colonies.

SIR,—Would you kindly answer me the following questions through your paper. 1. Do any of the colonies—viz., Australia, New Zealand, or Canada—present a better field for medical practice than Great Britain? If so, which is the best? 2. Are there any paid appointments as physicians to British ambassadors? If so, how can they be obtained? I am, etc., R. ALEXANDER.

Leprosy.

SIR,—I would feel much indebted to any medical officer who was present with the late Abyssinian expedition, and marched to Magdala, who would in a few words let me know whether he observed cases of leprosy there, and whether on the coast or in the interior; also the kind of leprosy. I am, etc.,

Cupar Fife, September 1874. W. MUNRO, M.D.

An Appeal.

SIR,—Having been requested by the Committee of the British Medical Benevolent Fund to visit Mrs. Lewis, of 9, Gloucester Terrace, Margaret Street, Haggerston, I found her and two daughters in a very scantily furnished room, braiding buttons; and, on inquiry, learned that, working from 7 A.M. till late at night, the three together earned the magnificent sum of half a-crown a week. She had not tasted meat for three months, but had lived almost entirely on bread and dripping. Her husband, Dr. T. C. Lewis, who was M.D., F.R.C.S.E., L.A.C., Surgeon to the Queen's Own Tower Hamlets Militia, died suddenly in 1854 of diseased heart, aged 35, leaving policies on his life, which were, unfortunately, invested in Westminster Improvement Bonds, which, by their failure, brought ruin and misery to hundreds. His father, grandfather, uncles, great-uncles, and cousins, were officers in the Army, Navy, Marines, and Royal Artillery, for more than a century: many of them fell in battle, and from the effects of climate. One of the family was aide-de-camp to his late Majesty King William IV. The family of the widow was equally well connected. Nevertheless, she is old and in failing health—in fact, gradually sinking from disease and insufficient food. The grant of £10 from the British Medical Benevolent Fund, which I have doled out in small weekly sums, is exhausted; and, by the rules of the Fund, she cannot have another grant till next year, so numerous and so urgent are the demands upon it. I therefore venture to appeal in her behalf to any who will send contributions either to the Editor of the JOURNAL or myself. I am, etc., D. DE BERDT HOVELL.

Five Houses, Clapton, Middlesex, E., August 27th, 1874.

The Business of the Sections at the Annual Meetings.

SIR,—Allow me to call the attention of yourself and the members of the Association to a practical defect in the working of its rules: I allude to the large proportion of papers which are generally left unread at the sectional meetings. I mention this subject all the more readily because I have no personal grievance to ventilate, since my own paper occupied a capital position on the list this year, and was read in good time; and still more readily because I have no fault to find with any of the officers of the Association, from whom every one, so far as I know, received the utmost courtesy and kindness. When, however, a considerable proportion of the contributions received are not read, the result cannot be quite satisfactory. It is only natural that any gentleman who has taken the trouble to prepare a paper, and who has probably travelled a long distance to read it, should not be pleased to have it passed over: nor does its subsequent publication in the JOURNAL remove all cause for disappointment. All must, therefore, admit that this is a practical grievance, which it is very desirable to obviate if possible. How, then, are we to economise the time allotted to the reading and discussion of papers? This can, in my opinion, be done in several ways. It is usual on the first working day of the meeting of the Association to postpone for about three-quarters of an hour beyond the specified time the opening of every section except one, in order to give all the members the opportunity of listening to the opening address of the President of that one section, who is generally a man of great distinction. I am glad that the compliment was paid this year to one so very distinguished as Sir James Paget, because, in proposing that this practice should be abandoned, I am not likely to run the risk of being supposed to undervalue the brilliant address to which we had the pleasure of listening. At the same time I do think that this practice, which has grown up without any one in particular being to blame, might be given up with advantage, since it encroaches considerably upon the working hours of the Association. It may be said that a distinguished orator like Sir James Paget would be sure to attract all the members, and that if the other presidents were to open their sections at the same time, they would have to address empty benches. There is considerable danger of this result occurring to a very inconvenient extent; and to meet the difficulty, I would suggest that the presidents of sections be requested not to make their addresses longer than twenty minutes (Dr. Eade's admirable address did not occupy a longer time), a rule which would both tend to obviate this difficulty and to economise time still further. I make these suggestions, however, without deeming them essential, and if sufficient time could be gained in other ways, I for one would be pleased if the present practice, which is very congenial to my feelings, were continued. My only contention is, that *feeling* upon such an occasion ought to give way to work and duty; but the greatest waste of time arises from the readers of papers overstepping the limits of the time allotted to them. At Norwich, more than one gentleman occupied nearly half an hour in reading his paper; and at the Lancashire and Cheshire Branch meeting at Blackburn this year the case was still worse; one gentleman occupied nearly three-quarters of an hour, and another fully half an hour, in reading their papers. These papers were, no doubt, very good, and would make admirable clinical lectures to students; but, in my opinion, they went into unnecessarily minute details for a meeting of experienced medical men. The consequence of this state of matters is, that a general uneasiness spreads over the meeting. A few may be specially interested in the subject matter of a long paper, and consequently enjoy it; but, as a rule, from the President downwards, every face betokens impatience and irritability. The President looks at his watch, and, if his countenance be any index to his thoughts, he is inwardly saying, "Dear me; so much of our time already gone, and only two papers read". The result is, that the unfortunate gentlemen who have to read the subsequent papers have an instinctive feeling that they must address an exhausted, and therefore unsympathetic, audience; and if they be sensitive men, they scramble through their papers in any fashion. Who is to blame for this state of matters? The transgressors, of course. But if a simple appeal to their feelings would remedy the fault, it would never have occurred, since both in the JOURNAL and by circular it is intimated that no paper must exceed twenty minutes in reading, and yet the rule is constantly transgressed. Shall we say that the President is at fault for not enforcing the rule? I do not think so. I noticed that Dr. Eade endeavoured to enforce the rule with as much firmness as was consistent with his gentlemanly demeanour, and yet he failed. At the end of twenty minutes he always got up and intimated that the allotted time had elapsed, and if the reader of the paper showed any signs of wishing to proceed, the President then placed himself in the hands of the meeting. When the meeting is thus appealed to, any gentleman would be placed in an invidious position were he to call out, "No, no!" while, on the other hand, a few who are specially interested in the subject, and a few more who are always ready to obey a generous impulse, immediately call out, "Go on, go on", and this is taken to be the sense of the meeting, without any one dissenting. But more than justice to one man means less than justice to others, and gentlemen should pause before they encourage a transgression of the rules of the Association. Instead of leaving this rule to be worked by the good sense of the readers of papers, or placing our presidents in the unenviable position of having to enforce it or not at their pleasure, I would propose to make it absolute. I am told that at church congresses the President is furnished with a bell, which is rung, if required, at the end of the specified time; and so rigidly is the regulation observed, that the speaker has to sit down in the middle of a sentence, and frequently sits down in the middle of a word. I would propose, then, that the bell should be introduced to our sectional meetings, and that the reader or speaker be compelled to sit down whenever the President's bell rings. I would also propose that the time for the reading of a paper should be reduced to a quarter of an hour instead of twenty minutes. If a man arrange his facts carefully, and express himself in terse language, he can communicate a great deal of knowledge in a quarter of an hour; and the readers of papers would by-and-bye find that this limitation of their time would be a clear gain to themselves. Under the present system, the audience become restive and irritable in the presence of a bulky manuscript which at the end of twenty minutes exhibits no signs of becoming exhausted; but if the rule of the limitation of time were strictly enforced, the audience would become more attentive and appreciative, and subsequent discussion would be encouraged.

I would propose, lastly, that the time allowed to each subsequent speaker be strictly limited to seven minues. One can talk a good deal of sense in seven minutes. and, unfortunately, one can talk a good deal of nonsense in the same time; but in the latter case the audience would have the consolation that the President's bell would soon come to the rescue, whereas under the present system a man can get up and talk almost the entire audience out of the section without any one having a practical check upon him. But are there not particular subjects so important, and particular men so distinguished, that it would be unwise to enforce these rules in all their strictness? By no means. These rules should be strictly enforced in all cases whatever. Organisation of all kinds implies the giving up of certain actions in order that other actions may be performed with greater efficiency. It can never secure all gain and no loss; but the organisation is useful if the balance be on the side of the former. And in this case the advantages of strict enforcement of these rules would be so great, and the disadvantages of departure from them so obvious, that I have no hesitation in recommending that they should be strictly adhered to upon all occasions without exception. What we most want at our meetings is a rapid interchange of opinions upon a variety of topics, and a free communication of new facts and views which may be the subjects of future contemplation; and it is, therefore, very unwise to beat out any one subject to exhaustion, either in the paper or in the subsequent discussion.

I am, etc., JAMES ROSS, M.D.

Waterfoot, near Manchester, August 19th, 1874.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Aug. 31st; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Rumsey, Cheltenham; Mr. W. H. Michael, London; Dr. Cornelius B. Fox, Chelmsford; Dr. Beverley, Norwich; Dr. Embleton, Newcastle-upon-Tyne; An Old Member; Dr. Waters, Chester; Mr. Haviland, Northampton; Dr. Joseph Rogers, London; Dr. G. H. Philipson, Newcastle-upon-Tyne; Our Edinburgh Correspondent; Mr. Sympson, Lincoln; Dr. Russell, Birmingham; Dr. J. Batty Tuke, Edinburgh; Dr. Oxley, Liverpool; Dr. Munro, Cupar Fife; Mr. G. R. Park, Hedon; Dr. J. J. Charles, Belfast; Dr. Eddison, Leeds; M. A. Gouvin, Paris; Mr. J. H. Gornall, Warrington; Dr. Andrews, Hampstead; Mr. John Brown, Dorchester; Mr. J. E. Cornish, Manchester; Mr. H. J. Keyworth, Cheadle, Hulme; Mr. E. P. Hayward, London; Mr. J. H. Tilley, London; Our Dublin Correspondent; Dr. John Dougall, Glasgow; Mr. A. Godrich, London; Dr. Meymott Tidy, London; Dr. Parsons, Barking; Mr. Thomas Lettis, Great Yarmouth; Mr. F. E. Image, Bury St. Edmunds; Dr. John Lowe, Lynn; Dr. Matthews Duncan, Edinburgh; Dr. E. G. Cooke, Sheffield; Miss Fullerman, London; Mr. H. Gould, Northfleet; Dr. Balthazar Foster, Birmingham; Dr. W. B Mushet, New Brighton; Mr. W. Odell, Hertford; Mr. Jas. Hill, Wambrook; Mr. Harry Leach, London; Dr. Jukes Styrap, Shrewsbury: Dr. Edis, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Mr. D. de Berdt Hovell, London; Dr. C. Harrison, Lincoln; Mr. Eastes, London; Mr. G. S. Symmons, Ledbury; Mr. Stephen Clogg, Looe; Dr. J. A. Macdonald, Woburn; Mr. L. W. Marshall, Nottingham; Mr. Draper, York; Dr. McKendrick, Edinburgh; Mr. J. W. Wallace, Cork; Mr. P. Conolly, London; Mr. Theodore Davis, Caterham Valley; Mr. J. C. Sargeant, London; Staff-Surgeon Horner; Dr. Harvey, Aberdeen; Dr. A. T. Wilson, Campsie; etc.

EDUCATIONAL NUMBER.

STUDENTS AND THEIR EXAMINATIONS.

FROM the various holiday-haunts scattered so lavishly through our pleasant land, from continental health-resorts, and from trips by river and by ocean, soon will come trooping back to town the teachers and their pupils, ready to engage again in the hard work of the medical session. Before, however, they plunge into its midst, there will be delivered at each of our medical schools, with one notable exception, a general introductory address. Each lecturer will naturally greet the assembled friends and older students of the school on their reappearance in the theatre, and will welcome for his colleagues and himself the freshmen who are then entering upon their hospital careers. With whatever topic, too, his discourse may be chiefly occupied, he can scarcely refrain from offering to his hearers, the younger ones at any rate, a few words of earnest advice respecting the use to be made of the glorious opportunities which are presenting themselves, and which once past will never return. Upon this subject, perhaps, he cannot easily say too much. The auditors will be young, impressionable, and placed amidst surroundings which cannot fail to convince them of the serious import of the vocation they are adopting, and of the sacred trust thereby confided, which bids them employ their best powers in the acquisition of skill wherewith to alleviate human suffering. If, therefore, advice is ever to be of any use, the first of October should furnish a most appropriate occasion for its display; and, unless the opening addresses of 1874 constitute an unique exception, counsel and exhortation, happily blended, will form no inconsiderable share of their contents. In all this, we heartily agree, and are only induced to quit the subject with such scant remarks, because we rest assured that a flood of eloquence thereon is even now in preparation, and that the lapse of a few days will bring the occasion of its utterance.

But there is one point, so peculiarly within the province of the student's life that we gladly devote some space to its consideration, particularly as it came during the past session into especial prominence; we allude to the subject of the examinations of the different corporate bodies connected with the profession. Of these, during his curriculum, the student will, without doubt, have full and sufficient experience. Only, after examination, is his existence officially recognised; examinations, voluntary and compulsory, obstruct the even tenor of his path from first to last; and at the end he shuffles off the student's mortal coil simply by passing one or many of the final examinations. But, although these tests of progress may be dreaded beforehand, and regarded as bugbears of existence, they are found practically, one may venture to say, by the majority of students to afford a not unpleasant, though often a too much needed, stimulus to work, and to diversify agreeably the otherwise monotonous routine of labour. In fact, the student's attention is often so entirely engrossed with his approaching examinations, that he seems to be in danger of considering them the great end and aim of all his studies; whereas, in truth, they are but the portal through which he enters the larger sphere in life for which all his earlier work is designed to fit him. Throughout the whole curriculum, whilst paying sufficient attention to his examinations to enable him to pass them successfully, he must never lose sight of his aftercoming life of active occupation as a medical practitioner. He must treat examinations with becoming deference, but not exaggerate their importance or sacrifice all other considerations on their behalf.

Since the one portal through which all future practitioners are eventually to emerge into legalised existence has not yet received its keystone, students must still choose for themselves the examining boards from which to obtain degrees or licenses enabling them to practise. We print this week the regulations of the General Medical Council and Medical Licensing Bodies; and, after careful study of these rules, any freshman will probably be able to decide this question for himself. At any rate, any teacher at his newly adopted school would gladly, in a few moments, supplement our printed information with such necessary explanations as would dispel the least obscurity, and enable the inquirer to form his resolutions. But this is no light matter to be decided offhand. The higher degrees, both in Medicine and Surgery, require extra length of time, and consequently of purse, for their attainment; and it is well for no man to decide upon their achievement without contemplating thoroughly the cost beforehand, lest at last he find himself, for some reason or other, compelled to desist from the contest, in which case he fares worse than if he had originally restrained his ambition to a lower flight. For the higher degrees require of a man a very large share of preliminary reading and dissection, which too often cannot be completed until the end of his third winter or summer session; supposing, therefore, that he has so occupied his time, and then suddenly finds himself unable to prolong his stay at a medical school beyond the fourth year, he has but one twelvemonth left for clinical work of all kinds. Again, if a man, from experience of himself at previous examinations, have come to doubt his capability of passing severe tests, he will in that case do well to moderate his desires; for the examinations of superior grade occur at rare intervals—those of the University of London, for instance, only once a-year: if, therefore, rejection occur at either of these, the student is altogether thrown out of time in his calculations. This for many a man signifies a forced abandonment of all hopes of obtaining the coveted degree, whilst the examinations he has already passed possess no public utility. It is true, a few men succeed at examinations after being engaged in active practice, but they form such rare exceptions that they do not invalidate the rule which proclaims that a man's medical degrees, etc., are fixed when he leaves his school.

But, having well considered the subject in all its bearings, feeling confident that he is possessed of no vaulting ambition which is leading him to engage in a tedious unprofitable task, and being further assured that his opportunities of time, money, and personal energy, offer a fair chance of success, the student will do well to strive after the highest attainable degrees. It may be told him that the general public knows nothing of these things; and that it does not, even if it can, differentiate in the ordinary way between a Fellow and a Member of the College. This is partly true. Medical degrees do not, perhaps, carry all the weight with them which members of the profession think they should convey; neither are they royal passports to fame and fortune: other matters, such as a sympathising heart, gentle speech, and good behaviour, have also some sway with those who are selecting a doctor. But, *cæteris paribus*, a good degree is sure, at some time or other, to carry the day in a competition, and especially in public appointments of all kinds; whilst, if the holder should ever be desirous of engaging in consulting practice, he can scarcely hope to bring his ideas to a successful issue unless he start with a first-class diploma.

It being decided, then, which examinations shall be attempted, the candidate ought next to learn when they are held, and begin at once to qualify himself for the coming ordeal. As to the exact method by which he should prepare himself, in that he must be largely left to his own devisings. The plan which, from honestly gained experience, he believes to be the best, cannot probably be much improved upon by instruction from outsiders. Nevertheless, some hints of the chief causes of failure at examinations may probably be of service to the younger men. Now, it is often thought that the greatest number of "plucks" occurs amongst those who are the reverse of clever, but this we believe to be an error. Any student who has once passed the preliminary examination in classics and mathematics may probably make pretty sure of his further progress if he will but stick diligently to his work. And this many a "dunce" does; for, knowing his weak point, he endeavours to supply the deficiency by extra labour. The chief failures are apparently found amongst students who can work, but who do not, from sheer laziness, begin to exert themselves until the time left for preparation is too short. That unfortunate excuse of always "going to begin work next Monday" has probably produced more "plucks" than any other single cause. But, further, quiet steady daily work of a certain number of hours—not too many, so as to make inroads upon the health—should be kept up, that the brain-powers generally may be retained in their perfection, and that the memory and the observant faculties upon which a doctor has largely to rely may be specially trained for the purposes of his vocation.

One cardinal error to be avoided is that of giving undue attention to one subject, to the neglect of others equally important. If the examination before the student embrace questions in three subjects, each one should have daily a certain portion of time set apart for its cultivation. Another advantage of this plan, is that the brain, when tired with the consideration of one set of ideas, will often go to work at a fresh subject without any sense of fatigue. One, perhaps, need scarcely urge upon students the advisability of neglecting no means provided for their instruction; but it is especially important that they should be present at all written and oral examinations held in the schools, that they may acquire facility in framing replies, and the quiet easy confidence which comes of frequent practice. Nervousness before examiners, to which men are wont to ascribe their failures, is usually due to a conscious lack of knowledge—

> "Conscience doth make cowards of us all."

But, with all their engrossment in work for their coming public examinations, candidates should not neglect the school competitions for prizes, but should strive to obtain all the honours that come within their reach. The gaining of an exhibition or a medal gives a man a good position at once, puts him in a fair way to obtain the students' appointments when he seeks them, and goes far to render his hospital career a success.

CHANGES IN THE HOSPITALS AND MEDICAL SCHOOLS.

THE following changes have taken place in the Hospitals and Medical Schools since the beginning of last Winter Session.

At the Charing Cross Hospital, Dr. Headland has retired from the office of Physician and from the lectureship on Medicine; Dr. Green has consequently become full Physician, and Dr. Irvine has been appointed Assistant-Physician. Dr. Pollock has been appointed Lecturer on Medicine. Mr. Bellamy lectures on Anatomy in place of Mr. Barwell.

At St. George's Hospital, the office of Physician, rendered vacant by the death of Dr. Fuller, has been filled by the promotion of Dr. Dickinson to the post of Physician, and the appointment of Dr. Cavafy as Assistant-Physician. Mr. Pick is associated with Mr. Holmes as Lecturer on Surgery, and will also give instruction in Orthopædic Surgery.

At Guy's Hospital, Dr. A. L. Galabin has been appointed to the office of Assistant Obstetric Physician, rendered vacant by the death of Dr. J. J. Phillips. Mr. Laidlaw Purves has been appointed Aural Surgeon, in the room of Mr. Hinton, who has retired; and Dr. G. H. Savage gives instruction in Mental Diseases, in place of the late Dr. Thompson Dickson. Mr. Davies-Colley succeeds Mr. Durham as teacher of Practical Surgery.

At King's College, Dr. Garrod has retired from the professorship of Materia Medica, and is succeeded by Dr. Buchanan Baxter. Mr. Rymer Jones, after a long tenure of office, has resigned the professorship of Comparative Anatomy, and Mr. A. H. Garrod has been appointed in his place. Two vacancies in the medical department of the hospital, arising from the resignations of Dr. Garrod as Physician and Dr. Kelly as Assistant-Physician, have been filled by the appointment of Dr. Rutherford and Dr. Ferrier as Assistant-Physicians.

At the London Hospital, Dr. Herbert Davies has resigned the office of Physician, and has been appointed Consulting-Physician; and Dr. Morell Mackenzie has retired from the post of Assistant-Physician. Dr. Sutton has consequently become full Physician; and Dr. Stephen Mackenzie and Dr. A. E. Sansom have been appointed Assistant-Physicians. Mr. McCarthy lectures alone on Physiology, his former colleague, Dr. Woodman, having retired.

At St. Mary's Hospital, Dr. R. Farquharson has been appointed Lecturer on Materia Medica in the room of Dr. Cheadle; and Mr. G. Field has succeeded the late Mr. P. Allen as Aural Surgeon and Lecturer on Aural Surgery.

At the Middlesex Hospital, the vacancy in the office of Assistant-Physician, caused by the death of Dr. John Murray, has been filled by the appointment of Dr. G. H. Evans; and a new office, that of Assistant Obstetric Physician, has been created, to which Dr. A. W. Edis has been appointed. Dr. Evans will give lectures on Public Health.

At St. Thomas's Hospital, Dr. Payne lectures on Materia Medica instead of Dr. Clapton.

At University College, Dr. Sharpey has resigned the professorship of Anatomy and Physiology, and is succeeded by Dr. Burdon Sanderson, for several years Professor of Practical Physiology, the two chairs being combined under the title of "Jodrell Professorship of Physiology". Mr. E. A. Schäfer has been appointed Assistant-Professor of Physiology, and will undertake certain portions of the course. A vacancy in the Chair of Comparative Anatomy and Zoology has lately been caused by the death of Dr. R. E. Grant. Dr. W. R. Gowers has been appointed an Assistant-Physician to the hospital.

At the Westminster Hospital, Mr. Pearse has retired from the office of Surgeon. Mr. Richard Davy has consequently become full Surgeon, and Mr. Keene has been appointed Assistant-Surgeon. The vacancy in the office of Obstetric Physician and Lecturer on Midwifery, caused by the death of Dr. F. Bird, has been filled by the promotion of Dr. Potter, and the appointment of Dr. W. C. Grigg as Assistant Obstetric Physician. Mr. Cowell lectures alone on Surgery; and Mr. Bond is substituted for Dr. Potter as one of the Lecturers on Forensic Medicine.

At the Queen's College, Birmingham, Dr. James Russell has retired from the Professorship of Medicine, leaving Dr. B. Foster as sole Professor. Mr. Bracey has retired from the Professorship of Anatomy, which is now occupied by Mr. Thomas alone. Mr. J. St. S. Wilders, lately Joint-Professor of Materia Medica, has been appointed Professor of Forensic Medicine, in the place of the late Mr. T. Swain; and Dr. Mackey is now sole Professor of Materia Medica. The staff of the General Hospital has been increased by the appointment of Dr. Rickards as Physician.

In the Bristol Medical School, Dr. Shingleton Smith lectures on Physiology in place of Dr. Spencer, who becomes Dr. Martyn's colleague in the lectureship on Medicine and Pathological Anatomy, *vice* Dr. E. L. Fox. At the Royal Infirmary, Dr. Brittan and Dr. Beddoe have retired from the office of Physician, and are succeeded by Dr. Spencer and Dr. Shingleton Smith. Mr. T. E. Clark has retired from the office of Surgeon; and Mr. Dowson, late Assistant-Surgeon, has become full Surgeon; Dr. Waldo has been appointed Assistant-Physician, and Mr. D. E. Bernard Assistant-Surgeon.

In the Leeds School of Medicine, Mr. E. Robinson has become one of the Lecturers on Descriptive Anatomy, in place of Mr. Seaton; and Mr. J. Horsfall succeeds Mr. J. Walker as Joint-Lecturer with Mr. Wright on General Anatomy and Physiology. Practical Physiology is taught by Mr. Walker. Mr. Oglesby lectures on Pathology, in place of Dr. Eddison; and Mr. E. Atkinson on Comparative Anatomy, in place of Mr. Wheelhouse. In the Hospital, Mr. E. Atkinson has succeeded Mr. J. Seaton as Surgeon.

In the Liverpool Royal Infirmary School of Medicine, Dr. E. Dickinson lectures on Comparative Anatomy, in place of Dr. Caton. In the Infirmary, Mr. Stubbs having retired from the office of Surgeon, Mr. R. Harrison has become full Surgeon, and is succeeded as Assistant-Surgeon by Mr. W. M. Banks.

The Manchester Royal School of Medicine has been incorporated with the Owens College, and now forms a department of that institution. Most of the Lecturers in the School have become Professors and Lecturers in the Medical Department of the College. Dr. Morrison Watson has been appointed Professor, and Mr. J. Beswick Perrin Demonstrator, of Descriptive and Practical Anatomy. Dr. Julius Dreschfeld is associated with Dr. H. Simpson as Lecturer on Pathology, and Mr. D. J. Leech with Mr. Somers as Lecturer on Materia Medica and Therapeutics. Mr. Thomas Windsor lectures on Ophthalmology. Mr. C. Schorlemmer is Professor of Organic Chemistry, and Mr. W. C. Williamson of Comparative Anatomy. In the Infirmary, the only change is the appointment of Dr. Dreschfeld as an Assistant-Physician.

In the Sheffield School of Medicine, Dr. Bartolome and Dr. J. C. Hall have become Joint-Lecturers on Medicine, in the place of Dr. Frank-Smith.

In the University of Durham College of Medicine at Newcastle-on-Tyne, Dr. Alleyne Nicholson has been appointed Professor of Physiology and Biology. The vacancy in the Lectureship on Medicine caused by the death of Dr. Charlton has not been filled up, Dr. Philipson being the sole Lecturer on that subject.

In the University of Edinburgh, the professorship of Physiology is vacant by the resignation of Dr. Hughes Bennett, whose successor has not yet been appointed. Dr. Bennett has also retired from the office of Physician to the Royal Infirmary, to which Dr. D. J. Brakenridge has been appointed Assistant-Physician, and Dr. Chiene Assistant-Surgeon.

In the Edinburgh Extra-Academical School of Medicine, the additions are, Dr. Moinet and Dr. W. Craig as Lecturers on Materia Medica, and Dr. Grainger Stewart as Lecturer on Medicine. Dr. Bell Pettigrew teaches Practical Physiology. Dr. T. R. Fraser has ceased to lecture on Materia Medica, and Dr. McKendrick on Physiology, in the School.

In the University of Glasgow, Mr. Ferguson has been appointed Professor of Chemistry, in place of Dr. Anderson. Dr. McCall Anderson has been appointed Special Professor of Clinical Medicine, and Dr. George Buchanan Professor of Clinical Surgery.

In Anderson's University, Dr. George Buchanan, appointed Professor of Clinical Surgery in the University, is succeeded as Lecturer on Anatomy by Dr. A. Buchanan; and Dr. McCall Anderson, appointed Professor of Clinical Medicine, by Dr. Wood Smith as Lecturer on Medicine.

Dr. Fiddes has resigned the office of Surgeon to the Aberdeen Royal Infirmary, and Dr. Will has been appointed Junior Surgeon.

REGULATIONS
OF
THE GENERAL MEDICAL COUNCIL AND MEDICAL LICENSING BODIES.

SESSION 1874-75.[*]

THE GENERAL MEDICAL COUNCIL.

Recommendations and Opinions on Preliminary Examination.—Testimonials of Proficiency granted by the National Educational Bodies, according to the subjoined list, may be accepted, the Council reserving the right to add to, or take from, the list. I. *Universities of the United Kingdom.* Oxford, Cambridge, Durham, and London: Examinations for Degrees in Arts. Oxford, Cambridge, and Durham: Local Examinations (Senior); Certificates to include Latin and Mathematics. Oxford: Responsions; Moderations. Cambridge: Previous Examination. Durham: Examination for Students in their Second and First years; Registration Examination for Medical Students. London: Matriculation Examination. Aberdeen, Edinburgh, Glasgow, and St. Andrew's; Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine or Surgery. Edinburgh: Examination of (Senior) Candidates for Honorary Certificates under the Local Examinations of the University of Edinburgh. Dublin: Examination for a Degree in Arts: Entrance Examination. Queen's University (Ireland): Examination for a Degree in Arts; Entrance Examination; Examination for the Diploma of Licentiate in Arts; Previous Examination for B.A. Degree. II.—*Other bodies named in Schedule (A) to the Medical Act.* Royal College of Surgeons of England: Examination conducted, under the superintendence of the College of Surgeons, by the Board of Examiners of the Royal College of Preceptors. Society of Apothecaries of London: Examination in Arts. Royal College of Physicians and Royal College of Surgeons, Edinburgh: Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined. Faculty of Physicians and Surgeons of Glasgow: Preliminary Examination in General Literature. Royal College of Surgeons in Ireland: Preliminary Examination; Certificate to include Mathematics. Apothecaries' Hall of Ireland: Preliminary Examination in General Education. III.—*Examining Bodies in the United Kingdom, not included in Schedule (A) to the Medical Act.* Royal College of Preceptors: Examination for a First Class Certificate. The Examiners for Commissions in the Military and Naval Services of the United Kingdom; Certificate to include all the subjects required by the General Medical Council. IV.—*Colonial and Foreign Universities and Colleges.* University of Calcutta, Madras, or Bombay: Entrance Examination; Certificate to include Latin. University of M'Gill College, Montreal, of Toronto, of King's College, Toronto, of Queen's College, Kingston, of Victoria College, Upper Canada, of Dalhousie College and University, Halifax, of Fredericton, New Brunswick, or of Sydney: Matriculation Examination. University of King's College, Nova Scotia: Matriculation Examination; Responsions. University of Melbourne: Matriculation Examination, Certificate to include all the subjects required by the General Medical Council. Codrington College, Barbadoes: English Certificate for Students of two years' standing, specifying the subjects of Examination; Latin Certificate, or "Testamur". Tasmanian Council of Education: Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics. Christ's College, Canterbury, New Zealand: Voluntary Examinations, Certificate to include all the subjects required by the General Medical Council. Cape of Good Hope: Third Class Certificate in Literature and Science, granted by the Board of Public Examiners. South Australian Institute, Adelaide: Preliminary General Examination.—N.B. A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient Testimonial of Proficiency. The Licensing Boards are recommended not to accept the certificate of proficiency in general (preliminary) education from any of the Bodies, the names of which are contained in the list annually circulated, unless such certificate testify that the student to whom it has been granted has been examined in—1. English Language, including Grammar and Composition.[†] 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin, including Translation and Grammar. And in one of the following *Optional Subjects*:—Greek; French; German; Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.—Students who cannot produce any of the testimonials referred to in the first recommendation are required to pass an Examination in Arts, established by any of the bodies named in Schedule (A) to the Medical Act, and approved by the General Medical Council.—Certificates of proficiency are received from all bodies legally authorised to examine in General Education in Great Britain and Ireland, and from the several Licensing Bodies enumerated in Schedule (A) to the Medical Act in Great Britain and Ireland, shall bear evidence that the candidates have been examined and approved in at least the above subjects.—In the case of certificates received from similar educational and licensing bodies in other parts of the empire and foreign countries, satisfactory evidence shall be given to the Medical Council, or Branch Councils, that such certificates are equivalent to those recognised in the United Kingdom.

Registration of Medical Students.—Every medical student shall be registered in the manner prescribed by the General Medical Council. No medical student shall be registered until he has passed a Preliminary Examination. The commencement of the course of Professional Study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.—The registration of medical students shall be placed under the charge of the Branch Registrars. Each of the Branch Registrars shall keep a Register of medical students according to a form, containing the Date of Registration, the Name, the Preliminary Examination and Date, and the Place of Medical Study.—Every person desirous of being registered as a medical student, shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to the annexed form,[*] which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and a statement of his place of medical study.—The Branch Registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a certificate of such registration.—Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for registration.—The several Branch Councils shall have power to admit special exceptions to the foregoing regulations, for reasons which shall appear to them satisfactory.—A copy of the Register of Medical Students, prepared by each of the Branch Registrars, shall be transmitted, on or before the 31st December in each year, to the Registrar of the General Council; who shall, as soon as possible thereafter, prepare and print an Alphabetical List of all students registered in the preceding year.—The several qualifying bodies are recommended not to admit to the final examination any candidate (not exempted from registration) whose name had not been entered in the Medical Students' Register at least four years previously.—In the case of candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.

Age for Licence to Practise.—The age of 21 shall be the earliest age at which a candidate for any Professional Licence shall be admitted to his final examination; the age shall, in all instances, be duly certified; and a return of any exceptions in this recommendation allowed by the Licensing Bodies, together with the reasons for such exceptions, shall be transmitted to the Branch Council of that part of the United Kingdom in which they have been granted.—No Licence shall be obtained at an earlier period than after the expiration of forty-eight months subsequent to the registration of the candidate as a medical student.

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[*] To save space, we omit those portions of the Recommendations of the General Medical Council and of the Regulations of the Examining Bodies, which are not of direct importance to medical students.

[†] The General Medical Council will not consider any examination in English sufficient that does not fully test the ability of the candidate—1. To write a few sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition. 2. To write a portion of an English author to dictation. 3. To explain the grammatical construction of one or two sentences. 4. To point out the grammatical errors in a sentence ungrammatically composed, and to explain their nature. 5. To give the derivation and definition of a few English words in common use. Provided always that an examination may be accepted as satisfactory that secures, on the part of the candidate passing it, a sufficient grammatical knowledge of English.

[*] *Form of Application for Registration as a Medical Student.*—I hereby apply to be registered as a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. [Name of applicant (to be written in words at length); Surname; Christian name: Preliminary examination; Date of preliminary examination; Place of medical study; Applicant's signature; Address; and Date of Application. To the Registrar of the Branch Council for —.]

N.B.—The above form of Application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a Certificate of the applicant's having passed a Preliminary Examination, as required by the General Medical Council, and a statement of his place of Medical Study.

Professional Education. -The course of Professional Study required for a Licence shall comprehend attendance during not less than four winter sessions, or three winter and two summer sessions, at a school recognised by any of the Licensing Bodies mentioned in Schedule (A) to the Medical Act.—The following are the subjects, without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered :—1. Anatomy ; 2. General Anatomy ; 3. Physiology ; 4. Chemistry ; 5. Materia Medica ; 6. Practical Pharmacy ; 7. Medicine ; 8. Surgery ; 9. Midwifery ; 10. Forensic Medicine. "Chemistry" should include a knowledge of the principles of Chemistry, and of those details of the science which bear on the study of Medicine. "Medicine and Surgery" should include a knowledge of systematic and Clinical Medicine and Surgery, and also of Morbid Anatomy.

Professional Examination.—It is desirable that the different Licensing Bodies should combine their examinations, when this is practicable.—The professional examination for any Licence should be divided into two parts ; the first embracing the primary or fundamental branches directly connected with the Practice of Medicine and Surgery : the former not to be undergone till after the close of the winter session of the second year of professional study ; and the latter, or final examination, not till after the close of the prescribed period of professional study.—The examination in Physics, Botany, and Natural History may be undergone at an earlier period than the first professional examination.—The professional examinations to be conducted both in writing and orally ; and that they be practical in all branches in which they admit of being so.—Excellence in one or more subjects should not be allowed to compensate for failure in others.—If a candidate be rejected for failure in any one subject, he should be re-examined in all.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.*

EXTRACTS OF BYE-LAWS RELATING TO MEMBERS.

Any person who shall have satisfied the College touching his acquirements in general Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the Bye-Laws and Regulations of the College, may be proposed to the College to be admitted a Member.—Every Candidate for the Membership who shall have commenced his professional studies after September 1861, shall satisfy the Censor's Board that previously to the commencement of his professional studies he has obtained a Degree in Arts from some University of the United Kingdom or of the Colonies, or from some other University specially recognised by the Medical Council, or that he has passed examinations equivalent to those required for a Degree in Arts.—Every Candidate for membership shall furnish proof that he has attained the age of 25 ; and shall produce a testimonial of moral character and conduct from a Fellow or Member of the College.—Every Candidate (*except such as are specially exempted as below described*) shall produce proof of his having been engaged in professional studies during five years, of which four years at least shall have been passed at a medical school or schools recognised by the College ; and shall produce evidence, satisfactory to the Censor's Board, of having studied the following subjects. [The subjects are the same as those required for the Licence (see next page) ; but Clinical Medicine must be attended during *three winter and three summer sessions.*] He must also give evidence of having attended diligently during three winter sessions and three summer sessions the medical practice, and *during three winter sessions and two summer sessions the surgical practice*, of a hospital containing at least 100 beds ; of having been engaged during six months in the clinical study of Diseases peculiar to Women ; and of having served the office of clinical clerk in the medical wards during at least six months.—Every candidate who has prosecuted his studies abroad, whether in part or to the full extent required by the preceding bye-law (*except such as shall be exempted as below stated*), shall, nevertheless, bring proof of his having attended, during at least twelve months, the medical practice of a hospital in the United Kingdom containing at least 100 beds.

Exemptions from all or part of the examinations are allowed in the cases of candidates who have obtained the degree of Doctor or Bachelor of Medicine at an University in the United Kingdom, wherein the courses of study, and the examinations to be undergone by the students are satisfactory to the Censors' Board ; or who have attained the age of 40 years, and shall produce testimonials satisfactory as to moral character and conduct and general and professional acquirements ; or who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology conducted by any of the bodies named in Schedule (A) to the Medical Act, or who shall have obtained a degree in Surgery at an University in the United Kingdom, or shall have passed the examination on Surgery conducted by the Royal Colleges of Surgeons of England, of Edinburgh, or in Ireland, after a course of study and an examination satisfactory to the College. The Fee for admission is Thirty Guineas.

Every Candidate for the Membership of the College (except such as shall be exempted) will be required to pass the following examinations.

First examination ; Monday : *Evening*, from 7 to 10, by written questions. Tuesday : *Evening*, commencing at seven o'clock, *vivâ voce*, on Dissections and Preparations.

Second Examination ; Monday : *Evening*, from 7 to 10, written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. Tuesday : *Morning*, Practical examinations either at the College or in the surgical wards of a Hospital. *Afternoon*, from 1 to 4 on Materia Medica, and on Chemistry in its applications to Pathology, Pharmacy, and Toxicology. (This examination will be partly written and partly practical.) *Evening*, commencing at 7 o'clock, by written questions on Midwifery and the Diseases Peculiar to Women. Thursday : *Evening, vivâ voce* examination, commencing at 7 o'clock.

Third, or Pass Examination ; Thursday : *Afternoon*, from 2 to 6, by written questions on Medical Anatomy and on the Principles of Medicine. Friday : *Afternoon*, from 2 to 6, by written questions on the Practice of Medicine, including the Principles of Public Health, and on Psychological Medicine. Saturday or Monday : Practical examination at the College or in the medical wards of a Hospital. Tuesday and Wednesday : Examination *vivâ voce.*

Candidates will not be admitted to the first examination until after the termination of the second winter session of professional study at a recognised medical school, nor to the second examination until after the termination of four years of professional study, nor to the third or pass examination until after the completion of the required course. A candidate rejected at the first examination will not be readmitted to examination until after three months, and will be required to produce a certificate of the performance of dissections, or other professional study, satisfactory to the examiners, during that time. A candidate rejected at the second examination will not be readmitted to examination until after six months, and will be required to produce a certificate of attendance on the practice of a recognised Hospital during that time, and also of attendance on Clinical Lectures. Any candidate not approved at the third or pass examination will not (except by special permission of the College) be readmitted to examination until after the lapse of a year. Every candidate must give fourteen days' notice in writing to the Registrar of the College, of his intention to present himself for examination, at the same time transmitting the following certificates. *For the Primary Examination :* Evidence of having passed an Arts Examination ; and, in the case of those who shall have commenced professional studies after 1861, evidence of having previously obtained a Degree of Arts from some University of the United Kingdom, or of the Colonies, or from some other University specially recognised by the Medical Council, or that he has passed examinations equivalent to those required for a Degree in Arts ; of having been duly registered as a medical student ; and of having completed the second winter session of professional study at a recognised medical school. *For the Second Examination :* Evidence of having completed four years of professional study ; of having attained the age of 21 years ; of instruction and proficiency in vaccination ; and of having attended not less than twenty labours. *For the Pass Examination :* Proof of having attained the age of 25 years ; a testimonial from a Fellow or Member of the College ; evidence of having completed the required course of professional study.

Blank forms of the required certificates of attendance on hospital practice and on lectures may be obtained on application at the College.

BYE-LAWS RELATING TO LICENTIATES.

Every candidate for the College Licence (except when otherwise provided by the bye-laws) is required to produce satisfactory evidence to the following effect. Of having attained the age of 21 years. Of moral character. Of having passed, before the commencement of professional study, an examination in the subjects of general education recognised by the College. Of having been registered as a medical student in the manner prescribed by the General Medical Council. Of having been engaged in professional studies during four years, of which at least three winter sessions and two summer sessions shall have been passed at a recognised medical school or schools, and one winter session and two summer sessions, in one or other of the following

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[*] The requirements printed in italics apply to candidates who commence their Professional Education in the United Kingdom on or after October 1st, 1867 ; and to candidates who commence their Professional Education at a recognised Foreign or Colonial School on or after October 1st, 1868.

ways: 1. Attending the practice of a hospital or other institution recognised by the College; 2. Receiving instruction as the pupil of a legally qualified practitioner, holding any public appointment which affords opportunities, satisfactory to the examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction.[*] Of having attended, during three winter sessions and two summer sessions, the Medical and Surgical Practice at a recognised hospital or hospitals; of having discharged the duties of clinical clerk and dresser at a recognised hospital for periods of not less than three months each; and of having been engaged during six months in the clinical study of Diseases peculiar to Women. Of having studied the following subjects: Anatomy (with Dissections), two winter sessions;[†] Physiology, two winter sessions; Chemistry, six months; Practical Chemistry, three months; Materia Medica, three months; Practical Pharmacy, three months;[‡] Botany, three months;[§] Morbid Anatomy, six months;[||] Principles and Practice of Medicine, two winter sessions;[¶] Principles and Practice of Surgery, two winter sessions;[**] Clinical Medicine, and Clinical Surgery, each two winter sessions and two summer sessions;[††] Midwifery and Diseases peculiar to Women, three months;[‡‡] Forensic Medicine, three months. Of having passed the professional examinations.

Examination for the Licence.—Every candidate for the Licence, before he is admitted to examination, will be required to sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) to the Medical Act.

First Examination, on Anatomy and Physiology. First day: *Evening*, from 7 to 10, by written questions. Second day: *Evening*, commencing at 7 o'clock, *vivâ voce*, on Dissections and Preparations. Second or Pass Examination. First day: *Evening*, from 7 to 10, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. Second day: *Morning*, Practical examination at the College or in the Surgical Wards of an Hospital. *Afternoon*, from 1 to 4 on Materia Medica, and on Chemistry in its applications to Pathology, Pharmacy, and Toxicology. (This examination will be partly written, and partly practical.) *Evening*, commencing at 7 o'clock, written questions on Midwifery and the Diseases peculiar to Women. Third day: *Evening*, from 7 to 10, written questions on Medical Anatomy, and on the Principles and Practice of Medicine, including the Principles of Public Health. Fourth day: *Morning*, the candidate's practical knowledge will be tested, either at the College or in the medical wards of a Hospital. *Evening*, commencing at 7 o'clock, *vivâ voce*, on the Principles and Practice of Medicine, Surgery, and Midwifery.

Candidates will not be admitted to the first examination until after the termination of the second winter session of professional study at a recognised medical school, nor to the second or pass examination until after the termination of four years of professional study. The College does not admit to the pass examination any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least four years previously.

Any candidate who shall be rejected at the first examination, will not be readmitted to examination until after the lapse of three months, and will be required to produce a certificate of the performance of Dissections, or other professional study satisfactory to the examiners, during that time. Any candidate who shall be rejected at the second or pass examination, will not be readmitted to examination until after six months, and will be required to produce a certificate of attendance on the practice of a recognised Hospital during that time, and also of attendance on Clinical Lectures, or other professional study satisfactory to the examiners.

Every candidate intending to present himself for examination, is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following certificates. *For the First Examination*—Evidence of having passed an Arts Examination; of having been duly registered as a medical student; and of having completed the second winter session of professional study at a recognised medical school. *For the Second or Pass Examination*—Evidence of having completed four years of professional study; of having attained the age of 21 years; of proficiency in the practice of vaccination; and of having attended not less than twenty labours. A testimonial of moral character is required of every candidate. Blank forms of the required certificates of attendance on hospital practice and on lectures may be obtained on application at the College.

The exemptions in the regulations regarding the Membership, are applicable also to candidates for the Licence; and any candidate who shall have obtained a Degree in Medicine at an University recognised by the College, after a course of study and examination satisfactory to the College, shall be exempt from re-examination on the subjects of the primary examination. Any Registered Medical Practitioner, whose qualification or qualifications shall have been obtained before the 1st day of January, 1861, having been, with the consent of the College, admitted a candidate for the Licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the professional examination as his qualifications may seem to the examiners to render in his case unnecessary.[*]

The fee for the Licence is Fifteen Guineas,[†] of which Five Guineas are to be paid on admission to the first examination, which fee will not be returned to any candidate rejected at this examination, but will be allowed in the fee for the Licence; and he will be admitted to one subsequent first examination without the payment of an additional fee. Any candidate who shall be rejected at the second or pass examination will have the fee, paid on admission to this examination, returned to him, less Three Guineas.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

Examinations of candidates for the College Licence will take place as follows. *First Examination*, commencing on the first Mondays of October and December, 1874, and February, April, July, October, and December, 1875. *Second or Pass Examination*, commencing on the second Mondays of the same months.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REGULATIONS RESPECTING THE DIPLOMA OF MEMBER.

1. *Preliminary General Education and Examination.*—Candidates who commenced their professional education on or after the 1st of January, 1871, will be required to produce one or other of the following certificates:—1. Of Graduation in Arts at an University recognised for this purpose; viz., Oxford; Cambridge; Dublin; London; Durham; Queen's University in Ireland; Edinburgh; Glasgow; Aberbeen; St. Andrew's; Calcutta; Madras; Bombay; McGill College, Montreal; and Queen's College, Kingston, Canada. 2. Of having passed an examination for Matriculation, or such other examination as shall from time to time be sanctioned by the Council of this College, at an University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of the College.[‡] 3. Of

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[*] Professional studies commenced *before* the candidate shall have passed an examination in the subject of general education, will not be recognised by the College.

[†] The winter session comprises a period of six months, and the summer session a period of three months.

[‡] By Practical Pharmacy is meant instruction in the Laboratory of a Registered Medical Practitioner, or of a member of the Pharmaceutical Society of Great Britain, or of a Public Hospital or Dispensary recognised by the College.

[§] This course of Lectures may be attended prior to the commencement of professional studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his preliminary examination, will be exempt from attendance on this course.

[||] This includes attendance and instruction in the *Post Mortem* Room during the period of Clinical Study.

[¶] It is required that the Principles of Public Health should be comprised in this course of Lectures, or in the course of Lectures on Forensic Medicine.

[**] The attendance on the Lectures on Medicine and Surgery must not commence earlier than the second winter session at a recognised Medical School.

[††] The attendance on the Lectures on Clinical Medicine and Clinical Surgery must not commence until after the first winter session at a recognised Medical School. By Clinical Medicine and Clinical Surgery are meant special study and instruction at the bedside, with Lectures on cases.

[‡‡] Certificates must also be produced of attendance on not less than twenty Labours, and of instruction and proficiency in Vaccination.

[*] Forms of application may be obtained of the Registrar of the College.

[†] The Fee must be paid three days prior to the day on which the examination commences.

[‡] The following are the Examinations at present recognised under this Clause (No. 2), viz.: Oxford—Responsions or Moderations; Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics. Cambridge—Previous Examination; Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics. Dublin—Entrance Examination. London—Matriculation Examination. Durham—Examination of Students in Arts in their second and first years; Middle-Class Examinations, Senior, the Certificates to include Latin and Mathematics; Registration Examination for Medical Students. Queen's University in Ireland—Two years' Arts Course for Diploma of Licentiate in Arts; Preliminary Examinations at end of B.A. Course; Middle-Class Examinations, the Certificates to include Latin and Mathematics; Matriculation Examinations. Edinburgh, Aberdeen, Glasgow, and St. Andrew's—Preliminary or Extra Professional Examinations for Graduation in Medicine. Calcutta, Madras, and Bombay; McGill College, Montreal; University College, Toronto; Victoria College, Toronto; University of Laval, Quebec; King's College, Winder, Nova Scotia; University of Fredericton, New Brunswick; Dalhousie College and University, Halifax; University of Sydney; Bellevue Hospital Medical College, New York—Matriculation Examinations. Queen's College, Kingston—Matriculation Examination; Preliminary Examination of Students in Medicine. University of Melbourne—Matriculation Examination, with a Certificate that the Student has passed an Examination in Latin. Adelaide—South Australian Institute.

having passed the preliminary examination for the Fellowship of this College. 4. Of having passed the preliminary examination of the Royal College of Surgeons in Ireland or of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow. 5. Of having passed the examination in Arts of the Society of Apothecaries of London, or of the Apothecaries' Hall of Ireland. 6. Of having passed the first-class examination of the Royal College of Preceptors. 7. Testamur of the Codrington College, Barbadoes. 8. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the student has been examined in Latin and Mathematics. 9. Of having passed the voluntary examinations of Christ's College, Canterbury, New Zealand, the certificate to include all the subjects required from time to time in the Preliminary Examination of the College. Candidates who shall not be able to produce one or other of the foregoing certificates, will be required to pass an examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of this College.[*]

II. *Professional Education.*—Professional studies prior to the date at which the candidate shall have passed an examination in general knowledge, in conformity with the regulation in the preceding section, are not recognised.—The following will be considered as the commencement of professional education :—1. Attendance on the practice of a hospital, or other public institution recognised by this College; 2. Instruction as the pupil of a legally qualified surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council; 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College. *The commencement of professional study otherwise than by attendance on lectures in recognised Medical Schools, or by attendance on the practice of recognised Hospitals, will not be admitted until a certificate thereof shall be furnished to the Secretary for registration at the College, by the practitioner whose pupil the candidate shall have become, or by the medical superintendent of the Hospital or other institution to the practice of which he shall have entered, and will date only from the reception of such certificate by the Secretary; the certificate to be accompanied by proof of having passed the preliminary examination in general knowledge:*—Candidates will be required to produce certificates :—1. Of being 21 years of age. 2. Of having been engaged, subsequently to passing the preliminary examination, during four years, or during not less than four winter and four summer sessions, in the acquirement of professional knowledge. 3. Of having attended the following courses : Lectures on Anatomy, two winter sessions. 4. Dissections, not less than two winter sessions. 5. Lectures on General Anatomy and Physiology, one winter session. 6. Practical General Anatomy and Physiology during another winter or a summer session, consisting of not less than thirty meetings of the class.[†] Lectures on Surgery, one winter session. 8. Practical Surgery during not less than six months prior or subsequent to the course required by Clause 7.[‡] 9. One course of lectures on each of the following subjects, viz.: Chemistry;[*] Materia Medica; Medicine; Forensic Medicine; Midwifery (with practical instruction, and a certificate of having personally conducted not less than ten labours); Pathological Anatomy during not less than three months. 10. Practical Pharmacy, three months. 11. A three months' course of Practical Chemistry (with manipulations), in its application to medicine. 12. Instruction and proficiency in the practice of Vaccination.[†] 13. Of having attended, at a recognised hospital or hospitals, the practice of Surgery during three winter[‡] and two summer[§] sessions. 14. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months.[||] 15. Of having, subsequently to the first winter session of attendance on Surgical Hospital Practice, attended at a recognised hospital or hospitals, Clinical Lectures on Surgery during two winter and two summer sessions. 16. Of having been a dresser at a recognised hospital, or of having, subsequently to the completion of one year's professional education, taken charge of patients under the superintendence of a Surgeon during not less than six months, at a hospital, general dispensary, or parochial or union infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery. 17. Of having attended, during the whole period of attendance on Surgical Hospital Practice (see Clause 13), demonstrations in the *post mortem* rooms of a recognised hospital. 18. Of having attended, at a recognised hospital or hospitals, the Practice of Medicine and Clinical Lectures on Medicine during one winter and one summer session.

NOTICE.—*Clauses* 6, 8, 11, 14, *and* 17, *and the notes to clauses* 6, 8, 9, 12, *and* 14, *together with the courses of lectures on Forensic Medicine and Pathological Anatomy mentioned in Clause* 9, *are applicable to candidates who commenced their professional education on or after the* 1st *of October*, 1870.

N.B.—Blank forms of the required certificates may be obtained on application to the Secretary, and all necessary certificates will be retained at the College.

III.—*Certificates, etc.*—1. Certificates will not be received on more than one branch of science from one and the same lecturer; but Anatomy and Dissections will be considered as one branch of science. 2. Certificates will not be recognised from any hospital in the United Kingdom, unless the surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the teachers in such school be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the teachers in such school be members of one of the legally constituted Colleges of Surgeons in the United Kingdom. 3. No metropolitan hospital will be recognised by this College which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients. 4. The recognition of colonial hospitals and schools is governed by the same regulations, with respect to number of patients and to courses of lectures, as apply to the recognition of provincial hospitals and schools. 5. Certificates of attendance upon the practice of a recognised provincial or colonial hospital unconnected with, or not in convenient proximity to a recognised medical school, will not be received for more than one winter and one summer session of the hospital in attendance required; in such cases clinical lectures will not be necessary, but a certificate of having acted as dresser for the period of at least six months will be required. 6. Certificates will not be received from candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on lectures and hospital practice within fifteen days from the commencement of the session; nor from candidates who have studied in the provincial schools in England, unless their names shall be duly returned from their respective schools.* 7. Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland, from candidates for their diploma. Candidates who shall have pursued the whole of their studies at recognised foreign or colonial universities will be admitted upon the production of the several certificates required for their degree by the authorities of such universities. 8. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom; Graduates in Surgery of any university recognised for this purpose by this College; and 9. Graduates in Medicine of any legally constituted college or university recognised for this purpose by this College, will be admitted to examination on producing their diploma, licence, or degree, together with proof of being 21 years of age. In each of these cases—7, 8, and 9—the candidate will also be required to produce a certificate of instruction and proficiency in Vaccination, and satisfactory evidence of having been occupied, after having passed the preliminary examination, at least four years, or four winter and four summer sessions, in the acquirement of professional knowledge.

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[*] The following are the subjects of the examination during the year; viz.—Part I. *Compulsory Subjects.* 1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition: such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple or compound, of Vulgar Fractions, and of Decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History; that is, the succession of the Sovereigns and the leading events of each reign. 8. Mathematics: Euclid, Books I and II; Algebra to Simple Equations inclusive. 9. Translation of a passage from the second book of Cæsar's *Commentaries De Bello Gallico.*—Part II. *Optional Subjects.* Papers will be set on the following six subjects; and each candidate will be required to offer himself for examination on one subject at least, at his option; but no candidate will be allowed to offer himself for examination on more than four subjects:—1. Translation of a passage from the first Book of the *Anabasis* of Xenophon. 2. Translation of a passage from X. B. Saintine's *Picciola*. 3. Translation of a passage from Schiller's *Wilhelm Tell.* Besides these translations into English, the candidate will be required to answer questions on the grammar of each subject, whether compulsory or optional. 4. Mechanics: the questions will be chiefly of an elementary character. 5. Chemistry: the questions will be on the elementary facts of Chemistry. 6. Botany and Zoology: the questions will be on the Classification of Plants and Animals. The quality of the handwriting and the spelling will be taken into account. N.B. Each candidate (who has not already paid the amount) is required to pay a Fee of £2 on the morning of the first day of the examination, prior to his admission thereto. The next examination will be held in December. The exact dates of the examination are duly advertised when fixed in the Medical Journals; and candidates are required to send in the prescribed forms of application not less than three weeks before the commencement of each examination. A candidate, in order to qualify for the Fellowship, is required, in addition to the subjects included in Part I, to pass in Greek, French, or German; and in one, at his option, of the remaining subjects in Part II.

[†] The learners themselves must individually be engaged in the necessary experiments, manipulations, etc.; but it is not intended that the learners shall perform vivisections.

[‡] In this course, each pupil must be exercised in practical details, such as—the application of anatomical facts to Surgery, on the living person, or on the dead body; the methods of proceeding and the manipulations necessary to detect the effects of diseases and accidents; the performance, where practicable, of operations on the dead body; the use of Surgical Apparatus; the examination of diseased structures.

[*] This course is not required from candidates who have passed a satisfactory examination in Chemistry in the preliminary examination.

[†] In the case of candidates who commenced their professional education on or after the 1st of October, 1868, the certificate of instruction in vaccination will only be received from recognised Vaccine Stations, or from recognised Vaccine Departments in Medical Schools or Hospitals, or other Public Institutions, where the appointed teacher of vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place.—The certificates of attendance on lectures must include evidence that the student has attended the practical instructions and examinations in each course.

[‡] The Winter Session comprises a period of six months: and, in England, commences on the 1st of October and terminates on the 31st of March.

[§] The Summer Session comprises a period of three months: and, in England, commences on the 1st of May and terminates on the 31st of July.

[||] It is intended that the candidate should receive the instruction required by Clause 14 at an early period of his attendance at the Hospital.

IV. *Professional Examination.*—This examination is divided into two parts. 1. The First or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body. 2. The Second or Pass Examination, on Surgical Anatomy and the Principles and Practice of Surgery and Medicine, is partly written, partly oral, and partly on the practical use of surgical apparatus and the practical examination of patients. [A candidate can claim exemption from examination in Medicine under the following conditions, viz.: *a.* The production by the candidate of a degree, diploma, or licence in Medicine entitling him to register under the Medical Act of 1858, or a degree, diploma, or licence in Medicine of a colonial or foreign university approved by the Council of the College. *b.* A declaration by the candidate, prior to his admission to the final examination for Membership or Fellowship, that it is his intention to obtain either of the above-mentioned medical qualifications; in which case the diploma of the College will not be issued to him until he shall produce either the said medical qualification or proof of having passed the examinations entitling him to receive the same.] 3. The primary examinations are held in January, April, May, July, and November, and the pass examinations generally in the ensuing week. 4. Candidates will not be admitted to the primary examination until after the termination of the second winter session of attendance at a recognised school or schools; nor to the pass or surgical examination until after the termination of the fourth year of professional education. 5. The fee of five guineas, paid prior to the primary examination, and allowed on the whole fee of twenty-two-pounds† payable for the diploma, is retained; and after two failures at the primary examination, the candidate is required to pay an *additional* fee of five guineas prior to being again admitted to that examination, which *additional* fee is also retained. 6. Five guineas, part of the balance of the whole fee due for the diploma and paid prior to the pass examination, are retained; and after two failures at the pass examination, the candidate must pay an *additional* fee of five guineas prior to being again admitted to the said pass examination, which *additional* fee is also retained. 7. A candidate having entered his name for either the primary or the pass examination, who shall fail to attend the meeting of the Court for which he shall have received a card, cannot present himself for examination within three months afterwards. 8. A candidate referred on the primary examination is required, prior to his admission to re-examination, to produce a certificate of the performance of dissections during not less than three months subsequently to reference. 9. A candidate referred on the pass examination is required, prior to his admission to re-examination, to produce a certificate of at least six months' further attendance on the surgical practice of a recognised hospital, together with lectures on Clinical Surgery, subsequently to reference.

REGULATIONS RELATING TO THE DIPLOMA OF FELLOW.

I. *Preliminary Examination.*—Candidates must produce certificates of graduation in Arts at an university recognised for this purpose;‡ or of having passed such examinations in Arts as shall from time to time be required for graduation in Medicine at Oxford, Cambridge, Dublin, London, or Durham. Candidates who do not produce one of the foregoing certificates must pass an examination conducted by the Board of Examiners of the Royal College of Preceptors.*

II. *Professional Education.*—1. Except in the cases provided for to the contrary, every candidate for admission to the First or Anatomical and Physiological Examination for the Fellowship must produce, in addition to certificates of the same kind as are described in Section II, Clauses 3, 5, 6, 10, and 11 of the Regulations for the Membership, certificates of having passed the Preliminary Examination; of having performed dissections during three winter sessions; of having attended one course of lectures on Comparative Anatomy and one course of lectures on Chemistry.

2. Except in the cases provided for to the contrary, every candidate before his admission to the Second or Professional Examination, must produce, in addition to the certificates described in Section II, Clauses 7, 8, 9 (except Chemistry, included in the first examination), 12, 14, and 15 of the Regulations for the Diploma of Member, certificates of being twenty-five years of age; of having been engaged for six years in the acquirement of professional knowledge in hospitals or schools of Anatomy, Surgery, and Medicine recognised by the Council of the College; or, if the candidate be already a Member of the College, certificates of having been engaged for two years in the acquirement of professional knowledge, in addition to the certificates required for the diploma of Member; of having performed Operations on the dead body under the superintendence of a recognised teacher; of having attended the Surgical Practice of a recognised hospital or hospitals during four winter and four summer sessions, and the Medical Practice during one winter and one summer session; of having attended, during three winter and two summer sessions, demonstrations in the *post mortem* rooms of a recognised hospital; of having attended Clinical Lectures on Medicine during one winter and one summer session; and of having served the office of house-surgeon or dresser for not less than six months.

3. In the case of a candidate who shall have taken by examination the degree of Bachelor or Master of Arts in any university in the United Kingdom recognised by the Council, it shall be sufficient for him to produce a certificate or certificates that he has been engaged for five years (instead of six years) in the acquirement of professional knowledge in recognised hospitals or schools.

4. Any Member of the College shall, after the expiration of eight years from the date of his diploma, be entitled to be admitted to the professional examination for the Fellowship upon the production of a certificate, signed by three Fellows, that he has been for eight years in the practice of the profession of surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified.

III. *Professional Examinations.*—The examinations are held in May and November, and at such other times as the Council may appoint, and occupy not less than two days. The subjects of the first examination are the same as for the Membership; the second examination, on Pathology, Therapeutics, and the Principles and Practice of Surgery and Medicine,† is partly written, partly *vivâ voce*, and partly on the practical use of surgical apparatus, and includes the examination of patients and operations on the dead body.—The Fees are: for the first examination, Five Guineas, to be allowed on the fee for the Diploma of Fellow, but to be retained in case of rejection; for the second examination, Five Guineas (if the candidate be a Member) over and above charges for stamps, to be retained in case of rejection; Twenty-five Guineas (if he be not a Member) over and above charges for stamps, of which Five Guineas will be retained in case of rejection.‡ A candidate whose qualifications are found insufficient on his anatomical and physiological examination cannot present himself for re-examination until after six months; and a candidate whose qualifications shall be found insufficient upon his pathological and surgical examination cannot present himself for re-examination until after one year, unless the Court of Examiners shall otherwise determine.

SOCIETY OF APOTHECARIES, LONDON.

REGULATIONS RELATING TO CANDIDATES FOR EXAMINATION.

EVERY candidate for a certificate of qualification to practise as an Apothecary will be required to produce testimonials—1. Of having passed a preliminary examination in Arts, as a test of general education. (This examination must be passed before the commencement of professional studies, which is defined by the Medical Council to be "the time of commencing studies at a medical school".) 2. Of having attained the full age of 21 years. 3. Of good moral conduct. 4. The apprenticeship not being required, a certificate of three months' practical pharmacy from some recognised hospital or dispensary, or from a qualified medical practitioner. 5. Of having pursued a course of medical study in conformity with the regulations of the Court. Of having served the office of clinical clerk at a recognised hospital during the period of six weeks at least. Of having been examined at the class-examinations instituted by the various lecturers and professors of the respective medical schools and colleges.

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* At their first registration in October, candidates will be required to produce a certificate of having passed one or other of the preliminary examinations in general knowledge recognised by this College.

† This sum of twenty-two pounds is exclusive of the fee of two pounds paid for the preliminary examination.

‡ See Regulations for Diploma of Member, Section i, Clause 1.

* For the Subjects, see Note to Section i, Clause 9, page 332.

† For the condition of exemption from examination in Medicine, see Regulations respecting the Diploma of Member, Section iv, Clause 2. A candidate who has passed an examination in Medicine for the Membership will not be required to pass any further examination in Medicine for the Fellowship.

‡ The sum of £2, paid on the Preliminary Examination, will be allowed against these amounts.

Course of Study.—Every candidate must attend the following lectures and medical practice during not less than three winter and two summer sessions (each winter session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each summer session to extend from May 1st to July 31st). *First Year: Winter Session:* Chemistry; Anatomy and Physiology; Dissections. *Summer Session:* Botany; Materia Medica and Therapeutics; Practical Chemistry.—*Second Year: Winter Session:* Anatomy and Physiology, including Dissections and Demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. *Summer Session:* Midwifery and Diseases of Women and Children, and Vaccination; Forensic Medicine and Toxicology; Clinical Medical Practice.—*Third Year: Winter Session:* Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Clinical Medical Practice.—No certificates of lectures or of anatomical instruction delivered in private to particular students, apart from the ordinary classes of recognised public medical schools, can be received by the Court of Examiners.—All students are required *personally* to register the several tickets of admission to lectures and medical practice within the first fifteen days of the months of October and May.

Examination in Arts.—Examinations in the subjects of preliminary education will be held at the Hall of the Society on Friday and Saturday, January 29th and 30th, April 23rd and 24th, September 24th and 25th, 1875.—Candidates will be examined in the following branches; and no candidate will be approved unless he show a competent knowledge of each branch:—1. The English Language; 2. The Latin Language; 3. Mathematics; 4. One of the following subjects, at the option of the candidate: (*a*) Greek; (*b*) French; (*c*) German; (*d*) Natural Philosophy.* Candidates applying to be admitted to any examination must pay the fee (One Guinea) at least one week before the examination; and must sign their names in the candidates' book between 10 A.M. and 4 P.M., not later than the previous Thursday. If a candidate fail to pass the examination, the fee will not be returned to him; but he will be admissible to either or both of the two next following examinations in Arts without the payment of an additional fee, upon giving the usual notice, and signing the candidates' book. Certificates in Arts granted by any of the bodies whose certificate is recognised by the Medical Council will be accepted as equivalent to having passed the above examination.

Professional Examinations.—The Court meets every Wednesday and Thursday; and candidates are required to attend at 4.30 P.M. each day. Every candidate intending to offer himself for examination must give notice on or before the Monday previous to the day of examination, and must at the same time deposit all the required testimonials, with the fee, at the office of the beadle, where attendance is given every day, except Sunday, from 10 to 4 o'clock; Saturdays, 10 to 2.

The examination of candidates for the Licence is divided into two parts, and is conducted partly in writing (on Wednesday), and partly *vivâ voce* (on Thursday). Those students only who have to undergo the written examination have to attend at half-past 4 P.M. on Wednesday.

The *First Examination*, which may be passed after the second winter session, embraces the following subjects:—The *British Pharmacopœia*; Latin of Physicians' Prescriptions; Anatomy and Physiology; General and Practical Chemistry; Botany and Materia Medica.

The *Second or Pass Examination*, at the termination of the medical studies, includes: Principles and Practice of Medicine; Pathology; Therapeutics; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

Modified Examinations.—1. All Graduates in Medicine of British Universities will be admitted to a practical examination in Medicine and Midwifery only. 2. Licentiates of the Royal College of Physicians of London or of Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a *vivâ voce* examination in the Practice of Medicine, Midwifery, Forensic Medicine, and Toxicology. 3. Any candidate who has passed his first examination for the Licence of either of the Colleges of Physicians in the United Kingdom, or of the Colleges of Physicians and Surgeons of Edinburgh jointly, or of the Faculty of Physicians and Surgeons, Glasgow, or of the Apothecaries' Hall of Dublin; the first professional examination for the Degree of M.B., or Master in Surgery in the Universities of Oxford, Cambridge, or London; or the second part of the professional examination for the Degree of M.D., or Master in Surgery in the Universities of Edinburgh, Aberdeen, St. Andrew's, and Glasgow; or the first examination for medical and surgical degrees in the Irish Universities, will be admitted to a single examination in Materia Medica, the Practice of Medicine, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology, part of which examination will be conducted in writing. 4. Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the first Anatomical examination of the Royal College of Surgeons, London; the Royal College of Surgeons, Edinburgh; the Royal College of Surgeons, Ireland, are exempt from *writing* on Anatomy and Physiology *only* in their first examination. 5. Candidates who were apprenticed before the 1st August, 1858, and those students who commenced their hospital attendance on or before the 1st October, 1861, will be admitted to a *vivâ voce* examination on the following subjects: In translating physicians' prescriptions, in such parts of Chemistry and Materia Medica as bear upon the Practice of Medicine, and on Toxicology, in Forensic Medicine, Visceral Anatomy, the Practice of Medicine, including Diseases of Women and Children, and in Midwifery.

All candidates, unless registered, will be required to produce their diploma.

The examination of candidates for certificates of qualification to act as assistant, in compounding and dispensing medicines, will be as follows:—In translating Physicians' Prescriptions; in the *British Pharmacopœia*; in Pharmacy, Pharmaceutical Chemistry, Materia Medica, and Medical Botany.

No rejected candidate for the Licence can be re-examined until the expiration of six months from his former examination. A candidate rejected on his first professional examination can be admitted to re-examination after three months; and no rejected candidate as an assistant until the expiration of three months.

Fees.—For a certificate of qualification to practise, Six Guineas, half of which is retained in case of rejection, to be accounted for at a subsequent examination. For the first examination, Three Guineas; and for an assistant's certificate, Two Guineas, both of which sums are retained in case of rejection, and accounted for subsequently.

Prizes.—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most; and of a silver medal and a book to the candidate who does so in the next degree. The examination in Botany will be held at the Hall of the Society on the third Wednesday in June, at 10 A.M., and will be conducted by printed papers and *vivâ voce* questions. The examinations in Materia Medica and Pharmaceutical Chemistry will be held at the Hall of the Society on the third Wednesday, and on the following Friday, in October, from ten in the forenoon to one in the afternoon of each day; by printed papers on the Wednesday, and by *vivâ voce* questions on the Friday.

The Society's Botanic Garden at Chelsea is open daily (except Sundays) from 10 A.M. to 5 P.M. Tickets of admission may be had on application at the beadle's office at the Hall.

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* The following is the Syllabus of Subjects for Examination in 1875. 1. English. The leading features of its History. Its Structure and Grammar. English Composition. 2. Latin. January: Cæsar, *De Bello Gallico*, Books I and II. April: Horace, *Odes*, Book III. September: Cicero, *Oratio in Catilinam*. Re-translation of easy sentences. Grammatical Questions will be introduced into the Latin Paper, and each Candidate will be expected to give satisfactory answers.—3. Mathematics: The Ordinary Rules of Arithmetic; Vulgar and Decimal Fractions; Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Simple Equations; The First Two Books of Euclid.—4. One of the following subjects, at the option of the candidate. (*a*) Greek: Xenophon, *Anabasis*, Books I and II; Grammatical Questions. (*b*) French: Molière, *Le Médecin malgré lui*; Translation from English into French; Grammatical Questions. (*c*) German: Schiller, *Wilhelm Tell*; Translation from English into German; Grammatical Questions. (*d*) Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. [The Books recommended for study in this subject are Smith's *Statics* and Smith's *Hydrostatics*. Macmillan and Co.]

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY student must reside either in one of the Colleges or Halls, or in a Licensed Lodging-House, for three years. During these three years, he has to pass two examinations in Arts and one in either Mathematics, Natural Science, or Law and Modern History; when, if he obtain a first, second, or third class, he can take his B.A. degree; if he do not gain such honours, he has to pass a third examination *in Literis Humanioribus*. A student deciding to graduate in medicine must, after passing the requisite examination for the degree of B.A., spend two years in study prior to a scientific examination for the degree of Bachelor of Medicine, unless he shall have taken a first or second class in the natural science school, when he may go in at the first opportunity for the first M.B. Examination. Two years after passing this examination, and after four years of professional and scientific study, he may go in for the second or practical examination for the M.B. degree. These four years of medical study may be spent either in or out of Oxford, in an approved medical school.

The M.B. Degree confers the Licence to Practise. For the Degree of Doctor in Medicine, a dissertation has to be publicly read three years after taking the M.B. Degree.

The medical examinations take place annually in Michaelmas Term.

Scholarships of about the value of £75 are obtainable at Christ Church, Magdalen, and other Colleges, by competitive examination in natural science. Every year a Radcliffe Travelling Fellowship is competed for by any one who, having taken a first-class in any of the Public Examinations of the University, or having obtained some University Prize or Scholarship open to general competition, proposes to study medicine. The Travelling Fellows receive £200 a-year for three years, half this period being spent in study abroad.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE.

A STUDENT proceeding to this degree must—(1) Reside in the University two-thirds of each of nine terms; (2) Pass the previous examination, which may be done in the first or second terms of residence; (3) Pursue medical study for five years, unless he have obtained honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, in which case only four years are required. Of this time of five years he must spend six terms in medical study in the University after passing the previous examination, unless he have obtained honours in one of the above-mentioned Triposes, in which case four terms only are required.

There are three examinations for the degree of Bachelor of Medicine, conducted partly by written answers, and partly *vivâ voce*. The examinations include chemical analysis, practical histology, the recognition and description of specimens (healthy, morbid, and microscopical), dissections, and the examination of patients.

The subjects of the first examination are—1, Mechanics and Hydrostatics; 2, Chemistry with Heat and Electricity; 3, Botany.* The student may present himself for this examination at any time after passing the previous examination. He must produce certificates of having diligently attended one course of lectures on Chemistry, including manipulation and one course on Botany.

The subjects of the second examination are—1, Elements of Comparative Anatomy;† 2, Human Anatomy and Physiology; 3, Pharmacology. Before presenting himself for this examination, the student must have completed two years of medical study. He must have attended hospital practice during one year, have practised dissection during one season, and must produce certificates of having diligently attended a course of lectures on each of the following subjects: 1, Elements of Comparative Anatomy; 2, Human Anatomy and Physiology: 3, Materia Medica and Pharmacy; 4, Pathology.

The subjects of the third examination are—1, Pathology and the Practice of Physic (two papers, including questions in Surgery and Midwifery); 2, Clinical Medicine; 3, Medical Jurisprudence.—Before presenting himself for this examination, the student must have completed the course of medical study, must have attended hospital practice during three years, and must produce certificates of having attended one course of lectures on each of the following subjects: 1, Principles and Practice of Physic; 2, Clinical Medicine; 3, Clinical Surgery; 4, Medical Jurisprudence; 5, Midwifery: also of having been clinical clerk for six months at least at a recognised hospital; or of having, subsequently to the completion of his attendance on hospital practice, attended to practical medicine in the special charge of patients in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless he himself be duly qualified.

After these examinations have been passsed, an Act must be kept in the schools. The candidate reads a thesis, composed by himself, on some subject approved by the Regius Professor of Physic; the professor brings forward arguments or objections for the candidate to answer, and examines him *vivâ voce* as well on questions connected with his thesis as on other subjects in the faculty of a more general nature. The exercise must continue at least one hour.

DOCTOR OF MEDICINE.

This may be taken by a Bachelor of Medicine in the ninth term after his inauguration. He is required to produce certificates of having been engaged five years in medical study, to keep an Act similar to that for M.B., and write an extempore essay. He pays ten guineas for the Act.—A Master of Arts may proceed to the degree of M.D. in the twelfth term after his inauguration as M.A., without having taken the degree of M.B. He must pass the three examinations for M.B., and keep the Act for the M.D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on lectures and hospital practice are required as of the candidate for the degree of M.B.; but he is not required to have kept medical terms in the University.

MASTER OF SURGERY.

The subjects of the examination for this degree are—1, Surgical Anatomy; 2, Pathology and the Principles and Practice of Surgery; 3, Clinical Surgery; 4, Midwifery.—Before admission to this examination, the candidate must have passed all the examinations for the degree of M.B., and must produce certificates of having attended the surgical practice of a hospital for three years, of having been house-surgeon or dresser for six months, and of having attended—1, a second course of lectures on Human Anatomy; 2, one course of lectures on the Principles and Practice of Surgery; 3, lectures on Clinical Surgery during one year; 4, ten cases of Midwifery; 5, of having practised Dissection during a second season.—The examination takes place at the same time as those for M.B., and in a similar manner. The candidate is required to perform operations on the dead body, and to examine patients in the hospital.

UNIVERSITY OF LONDON.

DEGREES IN MEDICINE AND SURGERY.

THE following Examinations for Degrees in Medicine will be held in the University of London in 1875. They will commence on the following days.

Preliminary Scientific Examination: Monday, July 20th.

Bachelor of Medicine (M.B.) First Examination: Monday, July 27th.

Bachelor of Medicine (M.B.) Second Examination: Monday, November 2nd.

Bachelor of Surgery (B.S.): Tuesday, November 24th.

Master in Surgery (M.S.) and Doctor of Medicine (M.D.): Monday, November 3rd.

The certificates in each case must be transmitted to the Registrar at least fourteen days before the commencement of the examination.

The fee for each examination is Five Pounds.* If a candidate withdraw or fail to pass either of the examinations, the fee is not returned; but he is admitted without further payment to *two* subsequent preliminary scientific, first M.B., second M.B., or B.S. examinations, or to *one* subsequent M.S. or M.D. examination, provided that he give notice to the Registrar at least fourteen days before the commencement of the examination.

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* Students who have obtained Honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, or passed the general examination for the B.A. Degree, are not required to be examined in Mechanics and Hydrostatics; and those students who have obtained Honours in the Natural Sciences Tripos are not required to be examined in Botany or Chemistry, with Heat and Electricity, if they have passed with credit the examination in the Tripos in those subjects. Students who have passed the special examination in Botany for the B.A. Degree, are not required to be examined again in that subject.

† Students who have obtained honours in the Natural Sciences Tripos, and passed with credit the examination in Comparative Anatomy for that Tripos, are not required to be examined again in that subject.

* For the degree of Doctor of Medicine, the fee will continue to be Ten Pounds to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of Five Pounds at the Preliminary Scientific Examination.

BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine is required —1. To have passed the Matriculation Examination, or to have taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras (provided that Latin has been one of the subjects in which he has passed). 2. To have passed the preliminary Scientific Examination.[*] 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts in one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom. 4. To pass two examinations in Medicine.

First M.B. Examination.—The candidate must have passed the preliminary scientific examination at least one year previously, and must produce certificates—1. Of having completed his nineteenth year. 2. Of having been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the following subjects: Descriptive and Surgical Anatomy; General Anatomy and Physiology; Comparative Anatomy; Pathological Anatomy; Materia Medica and Pharmacy; General Pathology; General Therapeutics; Forensic Medicine; Hygiene; Obstetric Medicine and Diseases peculiar to Women and Infants; Surgery; Medicine.[†] 3. Of having dissected during two winter sessions. 4. Of having attended a course of Practical Chemistry. 5. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of medicines. Candidates are examined in Anatomy; Physiology;[‡] Materia Medica and Pharmaceutical Chemistry; Organic Chemistry. Candidates must show a competent knowledge in all the subjects. The examinations are conducted by printed papers and *vivâ voce* interrogation, by demonstration from preparations and specimens, and by dissections.

Examination for Honours.—Any candidate who has been placed in the first division may be examined for Honours in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, and (3) Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself most in each of these three divisions receives an exhibition of £40 *per annum* for the next two years, payable in quarterly instalments; provided that, on receiving each instalment, he declare his intention of presenting himself at the second M.B. examination within three years from the time of passing the first M.B. examination. Under the same circumstances, the first and second candidates in each subject receive each a Gold Medal of the value of five pounds.

Second M.B. Examination.[§]—No candidate is admitted to this examination within two academical years of the time of his passing the first examination, nor without certificates:—1. Of having passed the first M.B. examination. 2. Of having subsequently attended a course of lectures on each of two of the subjects for which he had not presented certificates at the first examination. 3. Of having conducted at least twenty labours.[‖] 4 and 5. Of having attended the Surgical and the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine.[¶] 6. Of having, subsequently to the completion of his attendance on surgical and medical hospital practice, attended to Practical Medicine, Surgery, and Midwifery, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months. 7. Of having acquired proficiency in vaccination.[*] The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in General Pathology, General Therapeutics, and Hygiene; Surgery; Medicine; Midwifery; Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The examinations are conducted by printed papers and *vivâ voce* interrogation; by practical examinations in obstetric preparations and apparatus; by examination, and report on cases, of medical patients in the wards of a hospital; demonstrations from specimens and preparation. Candidates are expected to write prescriptions in Latin, without abbreviations.

Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

Examination for Honours.—Any candidate who has been placed in the first division may be examined for Honours in (1) Medicine, (2) Midwifery, and (3) Forensic Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in Medicine receives £50 *per annum* for the next two years, with the style of University Scholar in Medicine; and the candidates who distinguish themselves the most in Midwifery and in Forensic Medicine receive each £30 *per annum* for the next two years, with the style of University Scholar in Obstetric Medicine and in Forensic Medicine respectively. The first and second candidates in each of the preceding subjects each receive a Gold Medal, value five pounds.

BACHELOR OF SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Medicine in this University. 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. The examinations are conducted by printed papers on surgical anatomy and surgical operations; by examination and report on cases of surgical patients; by performance of operations upon the dead subject; by application of surgical apparatus; and by *vivâ voce* interrogation.

Examination for Honours.—Any candidate who has been placed in the first division at the examination may be examined for Honours in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives £50 *per annum* for the next two years, with the style of University Scholar in Surgery; and the first and second candidates each receive a Gold Medal of the value of five pounds.

MASTER IN SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Surgery[†] in this University. 2. Of having attended subsequently—(*a*) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; (*b*) or to Clinical or Practical Surgery during one year in a recognised hospital or medical institution, and of having been engaged during three years in the practice of his profession; (*c*) or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University.[‡] 3. Of moral character, signed by two persons of respectability. The examination is conducted by means of printed papers and *vivâ voce* interrogation; and the candidates are examined in Logic and Moral Philosophy,[§] and in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most at this examination receives a Gold Medal of the value of twenty pounds.

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[*] Candidates for the Degree of M.B. are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies. For the Preliminary Scientific Examination, candidates are examined in Mechanical and Natural Philosophy; Inorganic Chemistry; Botany and Vegetable Physiology; Zoology. They must show a competent knowledge in all the subjects of examination, and in Practical Chemistry. Candidates who matriculated previously to January 1861, are not required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they may pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

[†] The subjects numbered 2, 3, and 4, must be attended after passing the Matriculation Examination, or taking a Degree in Arts.

[‡] Any candidate is allowed, if he so prefer, to postpone his examination in Physiology from the First M.B. Examination at which he presents himself for examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such candidate is not admitted to compete for honours on either occasion; and he cannot be admitted as a candidate at the Second M.B. Examination until after the lapse of at least twelve months after having passed his examination in Physiology.

[§] Any candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former regulations, is required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present regulations; at which examination he is not allowed to compete for honours.

[‖] Certificates will be received from any legally qualified practitioner.

[¶] The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

[*] Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.

[†] Candidates who have obtained the degree o fBachelor of Medicine previously to 1866, will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates, the attendance on surgical practice required by regulation 2, may commence from the date of the M.B. Degree.

[‡] One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

[§] Any candidate who has taken the degree either of B.A., B.Sc., or M.D. in this University, is exempted from this part of the examination; and any candidate who has passed the Second M.B. Examination, may at any subsequent M.S. Examination present himself for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.—An analogous exemption is allowed in the case of candidates for the degree of M.D.

DOCTOR OF MEDICINE.

The candidate must produce certificates analogous to those required for candidates for the degree of Master in Surgery, but having special relation to Medicine. The examination is conducted by printed papers and *vivâ voce* interrogation; and candidates are examined in Logic and Moral Philosophy, and in Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most at this examination receives a Gold Medal of the value of twenty pounds.

UNIVERSITY OF DURHAM.

EVERY student in medicine must have been registered; and no one shall be registered unless he have passed the Registration Examination or such other examination as the Warden and Senate shall deem equivalent. The Registration Examination is directed to the rudiments of Religion, Literature, and Science; and is conducted by two or more examiners nominated by the Warden. The Registration Examination will begin on April 13th and September 14th, 1875.* The following Examinations are also accepted as qualifications for registration: Durham Senior Examination of persons not members of the University of Durham;† Durham Examination for Students of Arts in their first year. The Examinations for Licences and Degrees in Medicine and Surgery are conducted in Newcastle. The first examination is held in April; the final examination in June. The next examination will begin on Monday, April 19th, 1875.

LICENCE IN MEDICINE.

The candidate must be of the age of 21 years, and must, since his registration, have spent four years in medical study at one or more of the schools recognised by the Licensing Bodies named in Schedule (A) of the Medical Act. One at least of the four years must be spent at the College of Medicine at Newcastle-on-Tyne. There are two public examinations: the first, in Anatomy, Physiology, and Chemistry, after two years at least of medical study; the second after four years at least of medical study. Candidates must produce satisfactory testimonials of conduct, and such certificates of attendance on lectures and hospital practice as the Warden and Senate shall require.

BACHELOR OF MEDICINE.

The candidate must be of the standing of three terms at least as a Licentiate of Medicine, and of eighteen terms (six years) at least from the date of registration. He must have obtained a Degree in Arts of the University of Durham, or have passed the final examination for the Degree of Bachelor of Arts, or an equivalent to it; and must have passed the examination for the Degree of Bachelor of Medicine. The candidate must write an Essay on some medical subject, selected by himself and approved by the Professor of Medicine, and pass an examination thereon, including the collateral medical branches involved in the subject of the Essay.

DOCTOR OF MEDICINE.

The candidate must be of the standing of three terms at least as a Bachelor of Medicine in the University, and of the standing of twenty-one terms (seven years) from his registration or matriculation; and must have passed the examination for the Degree of Doctor of Medicine, which is similar to that for the Degree of Bachelor.

LICENCE IN SURGERY.

The regulations are similar to those for the Licence in Medicine; but the second examination is directed more particularly to Surgery, and may be passed at the same time with the final examination for a Licence in Medicine.

MASTER IN SURGERY.

The candidate must be a Licentiate in Surgery and in Medicine, and of the standing of eighteen terms (six years) at least from the date of his registration or matriculation, and of three terms at least from the date of his admission to the Licence in Surgery.—[In other respects, the regulations for this degree are analogous to those for that of Bachelor of Medicine.] The examination for this degree is directed chiefly to the Practice of Surgery.

Candidates for the Degrees of Master in Surgery, Bachelor of Medicine, and Doctor of Medicine, must reside and pursue the Arts course for three terms either in Durham or at Newcastle, in addition to the four years of medical study.

Fees for Examinations and Degrees.—Senior Middle-Class Examination, £1; Examination at the end of First Year, £1; Registration Examination, £1; Extraordinary Registration Examination, £2; Registration, 5s.; each Public Examination in Medicine and in Surgery, £1; Licence in Medicine or in Surgery, £3; Degree of Master in Surgery, Bachelor in Medicine, or Doctor in Medicine, each £6.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

No one can obtain the Licence of the College under the age of 21 years. Every applicant must produce satisfactory evidence of having been engaged in the study of Medicine during at least four years subsequently to registration as a student, and of having attended the following courses at an University, or at a medical school recognised by the College:—Anatomy, Practical Anatomy, Chemistry, Practice of Medicine, Clinical Medicine, and Principles and Practice of Surgery, each a six months' course; Practical Chemistry, Materia Medica and Pharmacy, Physiology or Institutes of Medicine, Clinical Surgery, Midwifery, Medical Jurisprudence, General Pathology, or Pathological Anatomy, and Practical Pharmacy, each a three months' course. He must have attended the Practice of a Public Hospital (containing not fewer than eighty beds) during not less than twenty-four months, twelve of which must have been spent in attendance on the medical wards. He must also have attended for six months the practice of a public dispensary, or have acted for six months as clinical clerk or dresser in a hospital; or have been engaged during six months as visiting assistant to a registered practitioner. He must also have attended at least six cases of labour under the superintendence of a qualified medical practitioner, and have studied vaccination under a competent and recognised teacher. He must have passed the Preliminary Examination in Literature and Science,* and had his name inscribed in the General Medical Council's *Register* of Medical Students, previously to the commencement of his Medical Studies. Masters and Bachelors of Arts of any British or Foreign University, whose course of study may be approved of by the College, will be exempted from the preliminary examination; also those who have passed the examination of the national educational bodies, or any of the licensing boards recognised by the Medical Act.

The Professional Examination will be divided into two parts: (1) Anatomy, Physiology, Chemistry; (2) Materia Medica and Pharmacy, Pathology and Pathological Anatomy, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine. No candidate will be admitted to the first examination until he has completed two, or to the second until he has completed four, years of professional study. The following will be the periods of examination to October 1875:—1. Preliminary examinations, October 20 and 21, 1874; April 20 and 21, and July 24 and 26, 1875. 2. First professional examinations, October 14, 1874; January 20, April 21, July 28, and October 13, 1875. The second professional examinations will be held on the Thursdays and Fridays following the first professional.

Candidates who already possess a qualification from a recognised Licensing Body, or who have passed the first professional examination before a qualifying body (provided it be as extensive as that required by this College), will be at once admitted to the second examination.

No candidate is admissible to examination who has been rejected by any other licensing board within the previous three months.

The Fee payable by a Licentiate is Ten Guineas. If a candidate be unsuccessful, Two Guineas will be retained to pay expenses.

Candidates may be admitted to special examination on bringing forward satisfactory reasons and paying an extra fee.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS FOR CANDIDATES FOR THE DIPLOMA.

THE regulations regarding schools of medicine, preliminary examination, and professional study and examination, are similar to those for the double qualification (see next page), except that the third course of Medicine and the course of Pathological Anatomy are not required. The first professional examinations will be held on October 27, 1874; January 26, April 6 and 27, and July 27, 1875. The second examination takes place immediately after the conclusion of the first.

At the second examination, the student, in furnishing the statement of his professional study, must, if he has been an apprentice, insert the name of his master, the date of his indenture, and the length of time for which he was bound. If the candidate have been an apprentice to a Fellow of the College, he must also produce his discharged indenture.

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* The following are the subjects for examination. The History contained in the Acts of the Apostles.—English Grammar and Composition.—Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations.—Euclid, Books I and II.—Latin Grammar, with—In April, Cæsar, *De Bello Gallico*, Lib. I and II. In September, Virgil, *Æneid*, Lib. I and II.—Also any one of the following: Greek Grammar, with Xenophon's *Memorabilia*.—French Grammar, with Voltaire's *Charles XII.*—German Grammar, with Goethe's *Dichtung and Wahrheit*, Book I.—Elementary Questions in Mechanics, Hydrostatics, and Pneumatics. Candidates must specify on which of the optional subjects they intend to be examined, one month before the examination.

† The subjects of examination are:—Latin; Algebra (including Simple Equations); Euclid (Books I and II); and one of the following subjects—Greek; French; German; and Mechanics, Hydrostatics, and Pneumatics.

* For the subjects, see note to regulations for double qualification.

Recent Dissections, Anatomical Specimens, and articles of the Materia Medica, are employed during the examinations; and all candidates are required to write out formulæ of prescriptions. They are also subjected to a practical clinical examination in the Surgical Hospital.

No candidate shall be admissible to examination who has been rejected by any other Licensing Board within three months preceding his application to be examined.

The Fees are: for the first examination, £4; for the second, £6; from candidates who have elsewhere passed the first professional examination, £10. In each case, £2 is retained if the candidate be unsuccessful.

Special examinations are held when required, the regulations being the same as in Clause 16 of the regulations for the professional examination for the double qualification, and an extra Fee being paid.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

The Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh, while they still give their Diplomas separately, have made arrangements by which, after one series of examinations, the student may obtain the Diplomas of both Colleges. This joint examination is conducted by a Board, in which each body is represented for examination in the branches common to both Medicine and Surgery; but the College of Physicians takes exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. Students passing that examination are enabled to register two qualifications—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

1. Every candidate must have followed his course of study in an University, or in an established School of Medicine, or in a Provincial School specially recognised by the College of Physicians and Surgeons of that division of the United Kingdom in which it is situate. 2. Under the title of *Established School of Medicine* are comprehended the medical schools of those cities of Great Britain and Ireland in which Diplomas in Medicine or Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

Professional Education. — 1. Candidates commencing professional study after September 16th, 1866, must have been engaged, during four years after the examination in general education, in not less than four winter sessions', or three winter and two summer sessions', attendance at a recognised medical school.[*] 2. The candidate must have attended the following courses of lectures: Anatomy, two courses[†] of six months each, and Practical Anatomy, twelve months; or Anatomy, one course of six months, and Practical Anatomy, eighteen months; Physiology, not less than fifty lectures;[‡] Chemistry, Practice of Medicine, Clinical Medicine,[§] Medicine (a third course, either Practice or Clinical, at option),[§] Principles and Practice of Surgery, Clinical Surgery,[§] Surgery (a third course, either Principles and Practice or Clinical Surgery, at option),[§] each six months; Practical or Analytical Chemistry, Materia Medica, Midwifery, and Diseases of Women and Children, Medical Jurisprudence, and Pathological Anatomy,[‖] each three months.[¶] 3. He must also produce certificates:—*a.* Of having attended at least six cases of labour under the superintendence of a registered medical practitioner. *b.* Of having attended, for three months, instruction in Practical Pharmacy. The teacher signing the certificate must be a Member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a Public Hospital or Dispensary, or a registered practitioner who dispenses medicine to his own patients. *c.* Of having attended, for twenty-four months, a public General Hospital containing, on an average, at least eighty patients. *d.* Of having attended, for six months, the practice of a public Dispensary specially recognised by either College; or of having been engaged for six months as assistant to a registered practitioner. *e.* Of having been instructed in vaccination; the certificate to be signed by the teacher, who must be a registered practitioner.—It is strongly recommended to students to avail themselves of opportunities of attending lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope.[*]

Preliminary Examination in General Education.—All candidates for the Diplomas of the Colleges must have passed the examination in General Education,[†] and have had their names inscribed in the General Medical Council's Register of Medical Students at the commencement of their Medical Studies. Certificates of having passed the examinations in General Education, conducted by other bodies (viz., those recognised by the General Medical Council), will be accepted as equivalent. Students who intend to undergo the preliminary examination must give in their names, addresses, and places of birth to the officer of either College, not later than three days before the day of examination; and must pay a fee of Ten Shillings, not to be returned in case of rejection; but they will be admissible to re-examination at a future period without paying another fee. Candidates who commenced their professional studies before September 17th, 1866, may pass the examination, but are recommended to do so at the earliest possible period. Candidates under this regulation, who have not passed a preliminary examination in general education will be admitted to a special examination in general education previously to their first professional examination. For this they pay a fee of £1.

Professional Examination.—1. Candidates for the double qualification are subjected to two professional examinations. 2. Opportunities for both examinations will be presented six times in each year. On each occasion, the candidates write answers to the questions proposed; and are examined orally on the days immediately succeeding. 3. Unsuccessful candidates are remitted to their studies for not less than three months. 4. The first examination embraces Anatomy, Physiology, and Chemistry; and takes place not sooner than the end of the second winter season. 5. Candidates must apply to the Inspector of Certificates on or before the Saturday preceding the day of examination;[‡] and must produce certificates of attendance on those courses of lectures which have reference to the subjects of the examination, and evidence of having passed the preliminary examination. 6. The sum of £6 must be paid to the Inspector of Certificates for this examination, not later than 10 A.M. of the day preceding it. This sum will be considered as paid to account for the entire Fee of £16 payable for the two Diplomas. 7. In the case of a candidate being unsuccessful at this examination, £4 will be returned to him. 8. The second examination embraces Medicine, Surgery, and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and takes place after the termination of the winter session of the last year of study. In the case of candidates who began their course of study after September 16th, 1866, it does not take place until four years after the examination in general education. 9. Application for examination must be made to the Inspector of Certificates not later than the Monday previous to the day of examination. 10. Every candidate must produce—*a.* Satisfactory evidence of having attained the age of twenty-one years; *b.* A certificate of having passed the preliminary examination, unless this certificate have been already seen by the Inspector; *c.* A certificate of registration in the books of the General Medical Council; *d.* A certificate of having passed the first professional examination; *e.* The certificate of his classes, etc.; *f.* A tabular statement (for which a printed form will be furnished), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools, attended during each session. 11. The fee for this examination is £10, which must be lodged with the Inspector not later than 10 A.M. of the day preceding the examination day. 12. On the production of the above documents, and after receiving the fees, the Inspector gives the candidate a letter authorising the examiners to take him on trial. 13. In case of a candidate being unsuccessful at this examination, £8 will be returned to him. 14. Candidates who have passed the first professional examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second professional examination on producing certificates of the whole course of study prescribed, and of having passed their preliminary and first professional examinations. If any of the three subjects of the first examination have been omitted, the candidate will have to undergo an examination on the omitted subjects; and none of the subjects set down in § 8 will be omitted at the second examination, even if some of them should have formed part of the first examination by another Board. The fee payable by such candidates is £16, and unsuccessful candidates will receive back £14. 15. In addition to the written and oral examinations, all candidates are subjected to a practical Clinical Examination in Medicine and Surgery. 16. Candidates desirous of special examination on other days than those fixed by the regulations, must prepare a case to be submitted for consideration, with evidence to show why it was, and is, impossible for them to avail themselves of the ordinary examinations, past or future. They must at the same time produce certificates of the whole of the prescribed course of study and of the preliminary examination, and state the earliest and the latest days within which they can present themselves. An extra fee is required in such cases. 17. No candidate is admissible to examination who has been rejected by any other Licensing Board within the three preceding months.

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[*] Candidates commencing study prior to the above date, will be admitted to examination after four winter sessions', or three winter and two summer sessions', attendance on classes at a regular Medical School.

[†] The two courses must not be attended in the same session.

[‡] In those Schools of England and Ireland in which two separate courses of Lectures are delivered at separate hours—one on Anatomy, the other on Anatomy and Physiology—the former of these courses will be received as a course of Anatomy, and the other as a course of Physiology.

[§] Two courses of Clinical Medicine or of Clinical Surgery of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the attendance at the Hospital where they are delivered.

[‖] A certificate of attendance at the *Post Mortem* Examinations at a General Hospital will be accepted in lieu of this course.

[¶] The six months' courses delivered in Scotland must consist of not fewer than one hundred lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' courses must consist of not fewer than fifty lectures.

[*] The following order of study is recommended as a guide to the student, though not enjoined. *First Year*—Anatomy; Practical Anatomy; Chemistry; Practical or Analytical Chemistry; Hospital. *Second Year*—Anatomy; Practical Anatomy; Physiology; Surgery; Materia Medica (the last either in this or the third year); Hospital. *Third Year*—Practice of Medicine; Clinical Surgery; Practical Anatomy; Practical Pharmacy; Clinical Medicine; Pathological Anatomy; Hospital. *Fourth Year*—Surgery or Clinical Surgery; Midwifery and Diseases of Women and Children; Practice of Medicine or Clinical Medicine; Medical Jurisprudence; Practical Midwifery; Hospital.

[†] The examination will embrace the following subjects:—1. English language, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: Cicero, *De Senectute et de Amicitiâ;* or Horace, *Carmina*, Lib. II and III; also a passage from an unprescribed author. 5. One of the following subjects at the option of the candidate:—(1) Greek: Herodotus, *History*, Book I; and Homer, *Iliad*, Book II. (2) French: Voltaire's *Henriade.* (3) German: Schiller's *Wilhelm Tell.* (4) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. In Latin, Greek, French, and German, parsing of words from the passages given to be translated will be required; also, translation of short sentences from English into the respective languages.

[‡] Candidates at a distance are requested to send their certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters; as much disappointment has been occasioned by the discovery of defects in their course of study when it was too late to rectify them by the production of documents.

Communications from candidates to be addressed to Dr. GAIRDNER, Inspector and Treasurer of the Double Qualification, at 45, Northumberland Street, Edinburgh.

The following will be the periods of examinations for the Double Qualification of the Royal Colleges of Physicians and Surgeons of Edinburgh, for the year 1874-75. *Preliminary Examination in General Education*, October 20th and 21st, 1874, April 20th and 21st, and July 24th and 25th, 1875. *First Professional Examinations.*—Tuesdays, November 3rd, 1874, February 2nd, April 13th, May 4th, July 20th and August 3rd, 1875. *Second Professional Examinations.*—These will take place immediately after the conclusion of the first professional examinations. In no case will they be begun on an earlier day than the Thursday of any period.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

REGULATIONS FOR THE DIPLOMA.

THE Regulations respecting the Curriculum of Professional Study are similar to those of the Royal College of Surgeons of Edinburgh.

Preliminary Examinations in General Literature will be held on October 9th and 30th, 1874, and April 23rd, July 23rd, October 8th and 22nd, 1875.[*] The Fee is Ten Shillings. Candidates are requested to give in their names to the Secretary at least two days before the examination, and to give intimation of the optional subject they select.

The *First Professional Examinations* take place on the second Tuesday of every month. The *Second Professional Examinations* take place, the written part on the second Tuesday of every month, and the clinical and oral parts on the succeeding day.

The Fee is £10; viz., £4 for the first, and £6 for the second examination.

The examinations are conducted partly in writing and partly orally. Recent Dissections, Anatomical Specimens, Chemical Tests, Articles of the Materia Medica, the Microscope, Surgical Apparatus, and Pathological Specimens are employed. Candidates are also subjected, at the second examination, to a practical Clinical Examination at the Hospital.

Candidates for the Diploma of the Faculty, who possess a qualification to practise, or who have passed the examination in Anatomy, Physiology, and Chemistry, before any of the Licensing Bodies enumerated in Schedule (A) of the Medical Act, on complying with the regulations in other respects, will be admitted to the second professional examination. In such cases, the full fee is eligible. In the case of unsuccessful candidates, £2 of the fee is retained.

A candidate, on showing a sufficient reason, may be admitted to examination on a day specially arranged, on paying an extra fee.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

THE Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, conjointly grant their Diplomas after one series of examinations before a Board of Examiners in which each body is represented. The regulations as to the curriculum of study are the same as those for the conjoined examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh. The fee for the two Diplomas granted conjointly is £16. The first examinations will be held on October 8th, 1874, January 14th, April 1st, May 6th, July 22nd, August 5th, and October 7th, 1875.

UNIVERSITIES OF EDINBURGH, GLASGOW, ABERDEEN, AND ST. ANDREW'S.

REGULATIONS RESPECTING DEGREES IN MEDICINE.

[THE Regulations of these Universities are nearly similar. We, therefore, give but one statement, noticing points of difference when necessary.]

Three Medical Degrees are conferred by each University, viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.) The Degree of C.M. is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

Preliminary Education.—The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and candidates must also pass a satisfactory examination in at least two of the following subjects:—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy.[*] The examinations on both classes of subjects take place[†] before the candidate has entered on his medical curriculum.[‡]

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[*] The examination will embrace the following subjects:—1. English Language, including writing to dictation, Grammar, and Composition. 2. Latin: Translation from one of the two following Books, at the option of the candidate: the First Book of Cæsar, *De Bello Gallico*; and *Æneid*, Book II; an Exercise in rendering English correctly into Latin, the Latin words being supplied. 3. Arithmetic, to Vulgar and Decimal Fractions inclusive; Algebra, including Simple Equations. 4. Geometry: First two Books of Euclid (in 1875, questions will be given on the third Book of Euclid, but the answering of them will be optional). 5. One of the following subjects at the option of the candidate. *a.* Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. *b.* Greek: Xenophon's *Anabasis*, Book III; or Homer's *Iliad*, Book III. *c.* French: 1874, La Fontaine's *Fables*, first six books; 1875, Voltaire's *Histoire de Charles XII*. *d.* German: 1874, Schiller's *Wilhelm Tell*; 1875, Schiller's *Geschichte des dreissigjährigen Kriegs*, first two books. In the English, Latin, Greek, French, and German papers, special stress will be laid on accurate answering of the grammatical questions.

[*] The Universities of Glasgow, Aberdeen, and St. Andrew's, include Natural History.

[†] As far as possible.—*Aberdeen.*—At *Glasgow*, the examination in the first class of subjects must take place before Matriculation; and that in the second class previously to the first professional examination.

[‡] In Edinburgh, examinations on these subjects will be held on 13th and 14th of October 1874, and 16th and 17th March 1875. 1. *English*—Writing a passage from dictation; composition, with correction of sentences of bad English; Grammar, with analysis of sentences and derivation and definition of some common English words; History and Geography. 2. *Latin*—Livy, Book xxii; an easy passage (Latin) from a Prose Author, and a single passage of English (translated from a Latin Author) to be re-translated into Latin, the more difficult Latin words being given. 3. *Arithmetic*—The Common Rules, including Vulgar and Decimal Fractions. 4. *Elements of Mathematics*—Euclid, Books I, II, and III; and the Rudiments of Algebra, including Simple Equations. A knowledge of Euclid alone will not be sufficient. 5. *Elements of Mechanics*—Elementary Mechanics and Hydrostatics. (See Goodwin or Todhunter.)—At least two of the following subjects. 1. *Greek*—Xenophon's *Memorabilia*, Book II. 2. *French*—Molière, *Le Bourgeois Gentilhomme*. 3. *German*—Goethe's *Egmont*. 4. *Higher Mathematics*—Euclid, Books I to VI; Algebra, Trigonometry, and Conic Sections. 5. *Natural Philosophy*—Balfour Stewart's *Elementary Physics*. 6. *Logic*—Jevons' *Elementary Lessons in Logic*. 7. *Moral Philosophy*—Calderwood's *Handbook*. In Latin, Greek, French, and German, questions in Grammar will be set, and passages to be translated from English.

In Glasgow, examinations will take place as follows. *First or Elementary Part*, Examinations in all the subjects of which must be passed before matriculation. *English*—Writing correctly a passage to dictation; Composition of a short Essay on a given theme; Questions in Grammar. *Latin*—Fourth Book of the *Æneid* of

A Degree in Arts (not honorary) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University specially recognised by the University Courts, exempts from all preliminary education; [and an examination in Arts by any corporate body, whose examination has been recognised by the General Medical Council, and also approved by the University Court, shall exempt from preliminary examination in Arts on all subjects comprised in the examination of the said corporate body.[*]]

DEGREE OF BACHELOR IN MEDICINE AND MASTER IN SURGERY.

Candidates for the Degree of Bachelor in Medicine or Master in Surgery must have been engaged in medical and surgical study for four years—each *Annus Medicus* being constituted by at least two courses of not less than 100 lectures each, or by one such course, and two courses of not less than 50 lectures each; with the exception of the clinical courses, in which lectures are to be given at least twice a week.

Every candidate for the degree of M.B. and C.M. must give sufficient evidence by certificates—1. That he has studied Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine and of Surgery, Midwifery and the Diseases of Women and Children,[†] General Pathology,[‡] during courses including not less than 100 Lectures; Practical Anatomy, a course of the same duration as the preceding; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or attendance on six cases under a registered medical practitioner; Clinical Medicine and Clinical Surgery, each course of not less than 100 lectures, or two courses of three months; Medical Jurisprudence, Botany, Natural History, including Zoology, courses of not less than 50 lectures. 2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital with not fewer than eighty patients. 3. That he has been engaged for at least three months in compounding and dispensing drugs at the Laboratory of a Hospital or Dispensary, of a Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.[§] 4. That he has attended, for at least six months, the out-practice of a hospital or the practice of a dispensary, or of a registered practitioner. Evidence of a practical knowledge of vaccination is also required.

One of the four years of medical and surgical study must be in the University granting the degree sought. Another year must be either in the same University, or in some other University entitled to give the Degree of Doctor of Medicine.[‖] [At St. Andrew's, no one can be received as a candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following Universities and Colleges; viz., the Universities of St. Andrew's, Glasgow, Aberdeen, Edinburgh, Oxford, or Cambridge; Trinity College, Dublin; and Queen's College, Belfast, Cork, or Galway.] Attendance during at least six winter months on the medical or surgical practice of a General Hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the Edinburgh University Court, may be reckoned as one of the four years.[*] All candidates not students of the University of Edinburgh attending the lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation Fee.

Every candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—1. A declaration, in his own handwriting, that he is 21 years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of apprenticeship. 2. A statement of his studies, general and professional, accompanied with proper certificates.[†]

Each candidate is examined in writing and *vivâ voce*—1, on Chemistry, Botany, and Natural History; 2, on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; 3, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4, Clinically on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology, are conducted, as far as possible, by demonstrations of objects. Students may be admitted to examination on the first division of these subjects at the end of their second year, and on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*. Candidates may be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of the fourth year. If any candidate be found unqualified, he cannot be again admitted to examination unless he has studied during another year two of the prescribed subjects, either in the University or in some other school of medicine.

[The above are the regulations, regarding professional examination, of the University of Edinburgh. Those of the other three Universities differ somewhat from those of Edinburgh. They are as follows.

Every candidate for the Degrees of Bachelor of Medicine and Master in Surgery must undergo three professional examinations, conducted in writing and *vivâ voce*. The first examination (not to be taken before the end of the second year of study) includes Chemistry, Elementary Anatomy, Botany, and Materia Medica at Aberdeen and St. Andrew's. The second examination (not to be taken before the end of the third year) includes advanced Anatomy, Physiology, and Zoology with Comparative Anatomy.[‡] The third examination (not to be taken before the end of the fourth year) includes Materia Medica, General Pathology, Surgery, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine, and Clinical Surgery.[§] The examinations in Anatomy, Chemistry, Physiology, Botany, Zoology, and Materia Medica are conducted, as far as possible, by demonstrations of objects; and those on Medicine and Surgery, in part, by clinical demonstrations. Candidates may be admitted to examination on the first two at the end of the third year, or to the three examinations at the end of the fourth year. If any candidate be found unqualified, he is not again admitted to examination unless he shall have completed another year of medical study, or such portion of another year as may be prescribed by the examiners.]

DEGREE OF DOCTOR OF MEDICINE.

The Degree of Doctor of Medicine may be conferred on any candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of 24 years, and has been engaged, subsequently to having

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Virgil, and Sallust *de Bello Jugurthino*, chap. I—L. Translations of passages from authors not prescribed, and of English passages into Latin, the principal Latin words being supplied: Questions in Grammar and Construction. *Arithmetic*—the Common Rules, including Vulgar and Decimal Fractions. *Elements of Mathematics*—Euclid, Books I, II, and III; Algebra, as far as Simple Equations. *Elements of Mechanics*—Questions, for which such works as Tomlinson's *Rudimentary Mechanics* may serve as text-books. *Second Part*, Exercises in two of the subjects of which, to be selected by the candidate, are required. *Greek*—*Cyropædia* of Xenophon, Book II, and the Gospel according to St. John; Translations of passages from Greek authors not prescribed, and of English passages into Greek—the principal Greek words supplied: Questions in Grammar. *French*—Corneille's *Le Cid*; Translations and exercises as in Latin and Greek. *German*—Lessing's *Laocoon*; Translations and exercises as in the other languages. *Mathematics*—Euclid, Books I to VI; Algebra, including Quadratic Equations, and the Rudiments of Trigonometry. *Natural Philosophy*—Such a knowledge of the principles as may be obtained from the Text-books of Golding Bird and Brooke, and Ganot—*Natural History*—Geology or Zoology. Text-books—Jukes, Lyell, Dana, R. Jones, Nicholson. *Logic*—Whately's *Logic*, Books II and III. *Moral Philosophy*—The General Principles, as stated in Dugald Stewart on the Active Powers, or Dr. Fleming's Manual.

At St. Andrew's, every Student in Medicine must be registered; but no one can be registered unless he has passed the Registration Examination, or an equivalent examination. The Registration Examination takes place during the first week of November. The following are the subjects: *English*—Grammar, Writing to Dictation, Composition. *Geography*—Europe. *Arithmetic*—including Vulgar and Decimal Fractions. *Latin*—Translations, with Grammatical Questions, from any one of the following Books, at the choice of the candidate: Cicero, *de Amicitiâ*, or *de Senectute*; Virgil, *Æneid*, one book; Horace, *Odes*, one book. One of the following subjects, selected by the candidate: *Greek*—Greek Grammar, with Parsing; and either fifty pages of Xenophon's *Anabasis*, or a Book of Homer. *French*—Voltaire's *History of Charles XII*, and French Grammar. *German*—Schiller's *Ballads*, and German Grammar. *Mathematics*—The First Book of Euclid.

[*] This portion, enclosed in brackets, is in the Regulations of the University of Edinburgh alone.

[†] Two courses of Midwifery, of three months each, are reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses.

[‡] Or a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine or Clinical Medicine.

[§] In the Laboratory of an Hospital or Dispensary, of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society of Great Britain.—*Glasgow.*

[‖] Entitled to grant Degrees in Medicine.—*Glasgow.*

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[*] The other two years may be constituted by attendance upon courses in the great Hospital Medical Schools of London or Dublin; and, in default of such attendance, one of the four years may be constituted by attendance on any general Hospital containing not less than eighty beds, provided attendance has been given at the same time on a course of Practical Anatomy.—*Glasgow.*

[†] The Universities of Aberdeen and St. Andrew's require an Inaugural Dissertation to be presented previously to the final examination for M.B. In Edinburgh and Glasgow, no Thesis is now required until the candidate seeks the Degree of M.D.

[‡] And Surgery.—*St. Andrew's.*

[§] Materia Medica in the first examination.—*Aberdeen and St. Andrew's.*—Surgery in the previous examination.—*St. Andrew's.*

received the degree of Bachelor of Medicine, for at least two years in attendance on a Hospital, or in the Military or Naval Medical Service, or in Medical and Surgical Practice. The candidate must be a Graduate in Arts, and must, before or at the time of his obtaining the degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory examination in Greek, and in Logic, or Moral Philosophy, and in one at least of the following subjects: viz., French, German, Higher Mathematics, and Natural Philosophy.* He must submit to the Medical Faculty a Thesis composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree.

Candidates who commenced their medical studies in Edinburgh before February 4th, 1861, and in Aberdeen before November 1861, are entitled to be examined for the degree of Doctor of Medicine, under the regulations then in force in each University respectively.

The Degree of Doctor of Medicine may be conferred by the University of St. Andrew's on any Registered Medical Practitioner above the age of 40 years, whose professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiners of the sufficiency of his professional knowledge, provided always that such degrees shall not be conferred on more than ten in any one year.

The Graduation Fees in each of the Universities are—for the Degree of M.B., three examinations, each £5 5s. = £15 15s.; for the Degree of C.M., £5 5s. additional; for the Degree of M.D., £5 5s. additional to that for M.D., together with Government Stamp Duty (£10).

The fee for graduating under the old Regulations in Edinburgh is £25; at St. Andrew's, the fee for the Degree of M.D. under the section relative to Registered Medical Practitioners is 50 Guineas. Stamp Duty is included in both cases.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RELATIVE TO THE LICENCE OF MEDICINE.

EXAMINATIONS for the Licence are held on the second Tuesday and following day in each month (except August and September).

A candidate who has not previously obtained any medical or surgical qualification recognised by the College must produce certificates—1. Of having been engaged in the study of Medicine for four years. 2. Of having passed the preliminary examination of one of the recognised Licensing Corporations before the termination of the second year of medical study. 3. Of having studied at a school or schools recognised by the College the following subjects: Practical Anatomy; Anatomy and Physiology, or Institutes of Medicine; Botany; Chemistry; Practical Chemistry; Materia Medica; Practice of Medicine and Pathology; Surgery; Midwifery; Medical Jurisprudence. 4. Of having attended a Medico-Chirurgical Hospital in which regular courses of Clinical Lectures are delivered, together with clinical instruction, for twenty-seven months, or such hospital for eighteen months, with nine months at a medical hospital. 5. Of having attended Practical Midwifery for six months at a recognised Lying-in Hospital, or evidence satisfactory to the College of having attended Practical Midwifery. 6. Of character, from two registered physicians or surgeons. A candidate who has already obtained a recognised medical or surgical qualification must fill up a schedule which will be supplied on application, and produce his diploma or certificate of registration, and the certificate of Practical Midwifery, and testimonials as to character.

The examination is conducted by printed questions and *vivâ voce*, and consists of two parts:—1. Anatomy; Physiology; Botany; Chemistry. 2. Materia Medica; Practice of Medicine; Medical Jurisprudence; Midwifery. Candidates will also be examined at the bedside.

Candidates who have already obtained a qualification from an University or other licensing body, or who have passed the first examination after a complete curriculum, are required to undergo the *second part* of the professional examination only. Physicians or surgeons of five years' standing are exempted from the written portion of the final examination. Fee for Licence in Medicine, £15 15s., of which £3 3s. are retained if the candidate be unsuccessful.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LETTERS TESTIMONIAL.

EVERY person, without any examination, shall be registered as a pupil on payment of £5 : 5, which is allowed in his diploma fee.

Students are admitted to the classical examination at any period previous to the final examination for letters testimonial.

Candidates who commenced their studies in or after October, 1872, must pass the Sessional Examinations, which are three in number, and are held three times a-year, viz., in April, July, and December.

The Primary Examination takes place after the termination of the Second Summer Session; the Secondary, after the Third Summer Session; and the Pass or Practical Examination, after the Fourth Summer Session. Each examination will occupy two days, of which the first is to be devoted, in the Primary and Secondary Examinations, to the writing of answers to printed questions; and in the Pass Examination, to clinical examination and operative surgery; and the second day, in all cases, to *vivâ voce*.

The subjects of the Primary Examination are—*a*. Anatomy (bones, muscles, articulations, and the topographical anatomy of the viscera of the chest and abdomen); *b*. Physiology of bones, muscles, and the fibrous tissues; *c*. Chemistry (inorganic); *d*. Materia Medica: the *Pharmacopœia*.

The subjects of the Second Examination are—*a*. Anatomy (descriptive and surgical); *b*. Physiology and Histology; *c*. Surgery; *d*. Medicine.

The subjects of the Third or Pass Examination are—*a*. Clinical Examination; *b*. Operations on the dead subject; *c*. Surgical Appliances; *d*. Therapeutics, including Prescription-writing; *e*. Medical Jurisprudence.

Candidates admitted under the old system are divided into two classes—Junior and Senior. The junior class must produce certificates of having attended three courses each of Lectures on Anatomy and Physiology, and on Practical Anatomy with Dissections; two courses of Lectures on Chemistry; one course each of Lectures on Materia Medica, Botany, and Forensic Medicine. This class is examined in Anatomy, Physiology, and Materia Medica. The senior class must produce certificates of having attended three courses of Lectures on the Theory and Practice of Surgery, and one course each of Lectures on the Practice of Medicine, and of Lectures on Midwifery; also of certificates of attendance on a recognised hospital for three winter and three summer sessions. This class is examined in Surgery, Operative Surgery, the Practice of Medicine, and forms of Prescription.

The total amount of fees for Letters Testimonial is £26 : 15. In addition, a fee of One Guinea is paid to the Registrar on receiving the diploma. Every candidate rejected at the quarterly examination must pay £2 : 2 on applying for re-examination.

Midwifery Examination.—An examination for a Diploma in Midwifery is held from time to time. Any Fellow or Licentiate of the College is admissible to the Examination on producing certificates of having attended a course of Lectures on Midwifery, the Practice (for six months) of a Lying-in Hospital, or of a Dispensary for Women and Children, and that he has attended at least thirty labours. The candidate shall, if passed, receive the Midwifery Diploma.

The fee is £1 : 6 if the Midwifery Diploma be taken out within one month from the date of the Letters Testimonial; afterwards it is £2 : 2.

FELLOWSHIP.

Every registered pupil or licentiate may be admitted to examination for the Fellowship on producing a certificate that he is 25 years of age, and that he is a Bachelor of Arts, or has been examined with a view to ascertain that he has obtained a liberal preliminary education; also a certificate, signed by two or more Fellows of the College, of general good conduct. He must have been engaged in the acquisition of professional knowledge not less than six years (five years being required in the case of Bachelor of Arts), during three of which he must have studied in one or more of the schools and hospitals recognised by the Council. The other three years may have been passed in any approved school. He must also have acted as House-Surgeon or Dresser in a recognised hospital; and must have attended the lectures required of candidates for Letters Testimonial, together with one course of lectures on Comparative Anatomy, and one on Natural Philosophy. He must present a thesis on some medical subject, or clinical reports, with observations of six or more medical or surgical cases taken by himself.

Licentiates of the College, who cannot show that they have followed the course of study specified in the regulations, may, at the expiration of ten years from the date of their Diploma, be admitted to the examination for the Fellowship, on producing satisfactory evidence that they have conducted themselves honourably in the practice of their profession.

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* In Greek and in Logic or Moral Philosophy, and in any one of the other optional subjects in the examination in General Education.—*Glasgow*. Natural History added in optional subjects.– *St. Andrew's*.

Each candidate for the Fellowship is examined on two days. The subjects of the first examination are Anatomy and Physiology (Human and Comparative); those of the second—Pathology, Therapeutics, the Theory and Practice of Medicine and Surgery, and such other branch of medical science as the Council may direct. The examinations are both oral and written. The candidates must perform Dissections and Operations on the dead bodies. Rejected candidates cannot present themselves a second time until after one year from the first examination.

The fee payable is £21 if the candidate be a Licentiate, or £36 : 15 if he be a registered pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the candidate intend to reside in Dublin, or within ten miles thereof, he pays, if a Licentiate, £31 : 10; if a registered pupil, £47 : 5. Fellows entering on the country list, who may subsequently settle as practitioners in Dublin, or within ten miles thereof, must pay £10 : 10 to the College.

APOTHECARIES' HALL OF IRELAND.

REGULATIONS REGARDING THE LICENCE TO PRACTISE.

EVERY candidate for the Licence to practise is required to undergo a Preliminary and a Professional Education and Examination.* The Arts Examination will be held on the third Thursday in January, April, July, and October, at 12 noon. Answers in writing must be given to printed questions. Unsuccessful candidates will be remitted to their studies for six months.

Professional Education and Examination.—Every candidate for the Licence must produce certificates: Of having passed an examination in Arts previously to entering on professional study. 2. Of being at least 21 years of age, and of good moral character. 3. Of apprenticeship to a qualified apothecary, or of having been engaged at practical pharmacy with an apothecary for three years subsequently to having passed the examination in Arts. 4. Of having spent four years in professional study. 5. Of having attended the following courses, viz.: Chemistry, Principles and Practice of Medicine and Surgery, each during one winter session; Anatomy and Physiology, Demonstrations and Dissections, each during two winter sessions; Botany and Natural History, and Forensic Medicine, each during one summer session; Practical Chemistry (in a recognised Laboratory) and Materia Medica, each during three months; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (twenty cases); instruction in vaccination. 6. Of having attended, at a recognised hospital or hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session. 7. Of having performed vaccination successfully under a recognised vaccinator.

The examination for the Licence to practise is divided into parts. The first part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy. The second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene. The first part may be undergone at the close of the second winter session; and the second at the termination of the fourth winter session.

The examinations will be held on the first and second Mondays in January, April, July, and October.

Candidates who fail to pass the first part of the professional examination will be remitted to their studies for three months. Unsuccessful candidates at the pass examination will not be readmitted until after six months.

UNIVERSITY OF DUBLIN.

DEGREES AND LICENCES IN MEDICINE.

THE degrees in Medicine and Surgery granted by the University are: 1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery. It also grants Licences in Medicine and Surgery.

Candidates for Degrees and Licences in Medicine and Surgery are required to pass an examination in the following subjects previously to their Degree examination: Descriptive Anatomy; Botany, Materia Medica and Pharmacy; Chemistry; and Physics. Two Medical Scholarships, of £20 each for two years, are awarded to the best answers at the previous examinations, on certain conditions. Candidates for Degrees and Licences in Medicine and Surgery are examined at the bedside.

BACHELOR IN MEDICINE.

A candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same commencement as that at which he receives his Degree of B.A., or at any subsequent commencement, provided the requisite medical education shall have been completed. The medical education is of four years' duration, and comprises attendance on a course of each of the following lectures: *Winter*—Anatomy; Practical Anatomy; Theoretical and Operative Surgery; Chemistry; Practice of Medicine; Midwifery. *Summer*—Botany; Institutes of Medicine; Comparative Anatomy; Materia Medica and Pharmacy; Medical Jurisprudence. *Term Courses*—Heat (Michaelmas); Electricity and Magnetism (Hilary). Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board.* Six months' instruction in Practical Midwifery,† including clinical lectures. A certificate of personal attendance on fever cases, with names and dates of cases. Six months' dissection, and three months' laboratory instruction in Chemistry. Any of the winter or summer courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows.‡ The Fee for the *Liceat ad Examinandum* is £5; for the Degree of M.B., £11.

Members of the Royal Colleges of Physicians or Surgeons of Dublin, London, or Edinburgh, who are Graduates in Arts of Oxford, Cambridge, or Dublin, are admissible to the Examination for M.B.

DOCTOR IN MEDICINE.

A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the Degree of Bachelor in Medicine for three years. He must also read two Theses publicly before the Regius Professor of Physic, or must undergo an Examination before the Regius Professor of Physic, according to Regulations to be approved by the Provost and Senior Fellows. The total amount of Fees for this Degree is £13.

BACHELOR IN SURGERY.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also pass a public Examination, having previously completed the prescribed Curriculum of study.§ The Curriculum comprises the following, in addition to the complete Course for the Degree of Bachelor in Medicine: Theoretical and Operative Surgery and Ophthalmic Surgery, each one course; Dissections, two courses. Nine months in Sir Patrick Dun's, or other recognised metropolitan hospital, together with attendance on Clinical Lectures. Students who shall have diligently attended the Practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies, are allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital. Candidates are required to perform surgical operations on the dead subject. Candidates for the Degree of Bachelor in Surgery, who have already passed the Examination for the Degree of Bachelor in Medicine, will be examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5; for the Degree of Bachelor in Surgery, £1.

MASTER IN SURGERY.‖

A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the Degree of Bachelor in Surgery for three years; and must read two Theses publicly before the Regius Professor of Surgery, or undergo an Examination before the Regius Professor, according to Regulations to be approved by the Provost and Senior Fellows. Fee for the Degree of Master in Surgery, £11.

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* The following are the subjects of Preliminary Examination:—*Compulsory.* 1. *English:* Grammar, Composition, writing from Dictation, and History. 2. *Arithmetic and Algebra:* Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. *Geometry:* First Two Books of Euclid. 4. *Latin:* the Twenty-first Book of Livy, or the First Three Books of the *Æneid* of Virgil, and Latin Prose Composition. 5. *Greek:* the First Two Books of the *Anabasis* of Xenophon, or the Ninth Book of the *Iliad* of Homer. 6. *French: Charles XII, Histoire de Vie*, of Voltaire, or *Voyage en Orient* of Lamartine. 7. *German: Wilhelm Tell* of Schiller.—Candidates will be examined in either French or German, as they may select.—*Optional.* 1. *Natural Philosophy:* Mechanics, Hydrostatics, and Pneumatics. 2. *Natural History:* The Classification, Elementary Structure, and General Physiology of Vegetables and Animals.

* The following Hospitals are recognised:—1. Sir Patrick Dun's Hospital; 2. Meath Hospital; 3. House of Industry Hospitals; 4. Dr. Steevens' Hospital; 5. Jervis Street Infirmary; 6. City of Dublin Hospital; 7. Mercer's Hospital; 8. St. Vincent's Hospital; 9. Adelaide Hospital; 10. Mater Misericordiæ Hospital.

† Certificates of Practical Midwifery are received from—1. The Rotundo Hospital; 2. The Coombe Hospital; 3. Sir P. Dun's Hospital Maternity; 4. Dr. Steevens' Hospital Maternity.

‡ The following schools, in addition to the School of Physic of Trinity College, are recognised:—1. The School of the Royal College of Surgeons in Ireland: 2. The Carmichael School: 3. The School of Dr. Steevens' Hospital; 4. The St. Peter Street School; 5. The School of the Catholic University. The recognition is conditional on the students being furnished with *bonâ fide* certificates of regular attendance equivalent to that required by the University; *i.e.*, three-fourths of the entire Lectures in each course.

§ Students in the School of Physic who matriculated before 22nd June, 1872, may obtain the Degree of Master in Surgery, according to the regulations in force previous to the creation of the Degree of Bachelor in Surgery.

‖ After 1874, Masters in Surgery must be of the standing of Masters in Arts.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine or Surgery must be matriculated in medicine, and must have completed two years in Arts and four years in medical studies.

In case the student should wish to continue the undergraduate course in Arts, with a view to the degree of B.A., his answering in the matriculation examination[*] will be reckoned as equivalent to the entrance examination and the Hilary examination of the Junior Freshman year.

The medical course and examination for the Licence in Medicine is the same as for the Degree of M.B. A Licentiate in Medicine, on completing his course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine, on paying the Degree fees, without further examination in medicine. Fee for the *Liceat ad Examinandum*, £5; for the Licence in Medicine, £5.

The surgical course and examination necessary for the Licence in Surgery, are the same as for the Degree of Master in Surgery. Fee for the *Liceat ad Examinandum*, £5; for the Licence in Surgery, £5.

QUALIFICATIONS IN STATE MEDICINE.

Doctors of Medicine, who wish to obtain from the University a certificate of qualification in State Medicine, can do so on passing an examination in a limited course of the following subjects: 1. Law; 2. Engineering; 3. Pathology; 4. Vital and Sanitary Statistics; 5. Chemistry; 6. Meteorology; 7. Medical Jurisprudence.

QUEEN'S UNIVERSITY IN IRELAND.

DEGREES IN MEDICINE AND SURGERY.

THIS University grants the Degrees of Doctor in Medicine and Master in Surgery, and a Diploma in Midwifery. It includes three Colleges—the Queen's Colleges of Belfast, Cork, and Galway—each of which possesses a Faculty of Medicine. The curriculum of medical study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Natural History, Anatomy and Physiology, Practical Anatomy, Materia Medica and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above courses of lectures must be attended in some one of the Queen's Colleges; the remainder may be taken, at the option of the candidate, in any University, College, or School, recognised by the Senate of the Queen's University. Candidates are required, before graduating, to have also attended, in one of the Colleges of the Queen's University, Lectures on Experimental Physics and on one Modern Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the practice during six months of a recognised Medico-Chirurgical Hospital containing at least sixty beds, together with clinical lectures delivered therein; and, during the second period, a recognised Midwifery Hospital, with clinical lectures therein delivered, for three months; or a Midwifery Dispensary for the same period; or ten cases of labour, under the superintendence of the medical officer of any hospital or dispensary where cases of labour are treated; and eighteen months' practice of a recognised Medico-Chirurgical Hospital containing at least sixty beds, with clinical instruction.

Candidates must pass three Examinations—the First University Examination, the Second University Examination, and the Degree Examination.

The First University Examination may be passed either in June or September. It comprises the following subjects: a Modern Language, Experimental Physics, Zoology, and Botany. Students may present themselves for examination in this group of subjects at any time after the close of the first Winter Session. Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the prescribed course of study in the subjects of examination.

The Second University Examination may be passed either in June or September. It comprises Anatomy, Physiology, Materia Medica, and Chemistry; to which will be added Zoology and Botany in the examination of candidates who have not previously passed the First University Examination. Candidates who are in this position will be allowed either to undergo their examination in Modern Languages and Experimental Physics as a part of the Second University Examination, or may present themselves for examination in these subjects at any time between the Second University Examination and the Degree Examination. Students may present themselves for the Second University Examination at the termination of the first period of the curriculum, or at any subsequent period; but no student will be allowed to postpone his Second University Examination until he presents himself for his Degree Examination, unless the Senate shall have passed a grace permitting him to do so. Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the first period.

Examinations for the Degrees of M.D., M.Ch., and the Diploma in Midwifery, will be held in June and September. The Fee for each Degree is Five Pounds, and the Fee for the Diploma in Midwifery is Two Pounds. Each Fee must be lodged with the Secretary before the corresponding examination begins.

Degrees in Surgery and Diplomas in Midwifery will only be conferred on candidates who hold the Degree of Doctor in Medicine of the University. The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of medical education. The Examination for the Degree of M.Ch. comprises an examination in the Theory and Practice of Surgery, including Operative and Clinical Surgery.[*] The Examination for the Diploma in Midwifery comprises an examination in the Theory and Practice of Midwifery and the use of obstetrical instruments and appliances.[†]

Candidates who graduated with honours will be arranged in two classes. Candidates who take a First Class will receive a Medal and Prize; candidates who take a Second Class will receive a Prize. Both Honour and Pass Examinations are held in September. The Examination held in June is a Pass Examination.

Two Exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be awarded annually at the First University Examination in Medicine. In 1874 and 1875, Peel Exhibitions will be offered for competition at the Second University Examination. The regulations concerning these Exhibitions, and all other information, will be found in the *Queen's University Calendar*, or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

THE ARMY AND NAVY MEDICAL SERVICES.

THE Regulations to be observed by candidates for admission to the Medical Services of the Army or Navy are identical, with a few slight exceptions.

1. Every candidate desirous of presenting himself for admission to the Army or Navy Medical Service must be unmarried, and not under 21 nor over 28 years of age. He must produce a certificate from the district Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must also produce a certificate of moral character [from the parochial minister, if possible].[‡]

2. The candidate must make a declaration that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate.[§] He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so.

3. The candidate must be registered under the Medical Act of 1858 as licensed to practise Medicine and Surgery in Great Britain or Ireland.

[*Continued on p.* 348.]

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[*] The following are the subjects of examination. Homer's *Iliad*, Books I, II (omitting Catalogue of Ships), III; Lucian's *Dialogues* (Walker's edition); Xenophon's *Anabasis*, Books I, II, III; Virgil, *Æneid*, Books I, II, III; Sallust; Horace, *Satires*; Latin Prose Composition; English Prose Composition; English History; Modern Geography; Arithmetic; Algebra, to the end of Simple Equations; Euclid, Books I, II, III.

[*] Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before the 1st of January 1865, will be exempted from the examination in Surgery. Candidates for the Degree in Surgery, who graduated in Medicine at a later period, will be required to undergo a paper and oral examination in the Theory and Practice of Surgery, and an examination in Operative and Clinical Surgery.

[†] Candidates for the Diploma in Midwifery who obtained the Degree of M.D. in the University before the 1st of January 1872, will be exempted from this further examination.

[‡] Army Regulations.

[§] His physical fitness will be determined by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. [A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed.—*Army*.] Every candidate must also be free from organic disease of other organs, and from constitutional weakness or other disability likely to unfit him for military or naval service in any climate.

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1874-5.

For further particulars regarding each Hospital and Medical School, see pp. 348 et seq.

Lectures, etc.	St. Bartholomew's Hospital.	Charing Cross Hospital.	St. George's Hospital.	Guy's Hospital.	King's College and Hospital.
WINTER SESSION.					
Physiology	Mr. Baker...M. Tu. F., 2.30	Dr. Silver...M. Tu. W. F., 3.30	Dr. Cavafy...Tu. Th., 3; F., 11	Dr. Pavy & Dr. Pye-Smith ...M. W. F., 4.15	Dr. Rutherford...M. W. Th. F., 4
Anatomy, Descriptive and Surgical	Mr. T. Smith & Mr. Langton...Tu. W. Th. F., 9	Mr. Bellamy...M. W. F., 9; Th., 3	Mr. Rouse...M. W. F., 3	Mr. Durham & Mr. Howse ...Tu. W. Th. F., 9	Dr. Curnow...daily, exc. M., 9
Anatomical Demonstrations	Mr. Cumberbatch, Mr. Furner, and Mr. Walsham...daily, 10.15 to 4	Mr. Cantlie...daily, 10	Mr. Frost & Mr. Dunbar	Mr. Lucas, Mr. Golding Bird, & Mr. Jacobson... daily, 10 to 4	Dr. Curnow
Chemistry	Dr. Russell...M. W. F., 10	Mr. Heaton...M. Th. F., 11	Dr. Noad...Tu. Th. S., 11.30	Dr. Debus & Dr. Stevenson...Tu. Th. S., 11	Mr. Bloxam...M. W. Th., 10.15
Medicine	Dr. Black & Dr. Andrew M. Tu. Th., 3.30	Dr. Pollock...M. W. F., 12.30	Dr. Barclay...Tu. Th. S., 9	Dr. Wilks & Dr. Habershon...M. W. F., 3	Dr. Johnson...Tu., 4 P.M.; Th. F., 5
Surgery	Mr. Savory & Mr. Callendar ...W. Th., 2.30; S., 9.30	Mr. Canton...Tu. Th. S., 9	Mr. Holmes and Mr. Pick M. W. F., 9	Mr. Birkett & Mr. C. Forster, Tu. Th., 3.30; F., 10.30	Mr. J. Wood...M. Tu. W., 5
Hospital Practice:					
Physicians	Dr. Black...M. Tu. Th., 1 Dr. Harris...Tu. Th. S., 1.30 Dr. Andrew...daily, exc. W., 1.30 Dr. Southey...M. W. Th. S., 1.30	Dr. Pollock, Tu. Th. S. Dr. Silver, Tu. Th. F. Dr. Green Hour of Visit...1 P.M.	Dr. Barclay...M. F., 1 Dr. J. Ogle...M. F., 1 Dr. Wadham...Tu. S., 1 Dr. Dickenson...Tu. S., 1	Dr. Habershon...Tu. Th. S., 1.30 Dr. Wilks...M. Th., 1.30 Dr. Pavy...M. F., 1.30 Dr. Moxon...M. Th. F., 1.30	Dr. Johnson...M. Th., 2 Dr. Beale...Tu. S., 2 Dr. Duffin...W. F., 2
Obstetric Physicians	Dr. Greenhalgh (in-p)... Th., 1.30; (out-p.) S., 9	Dr. J. W. Black...M. W. F.	Dr. J. Clarke...in-p., Tu. S., 1; out-p., Th. 12	Dr. Braxton Hicks..Tu. F., 1.30	Dr. Playfair...Tu. Th. S., 1.30
Assistant-Physicians	Dr. Church...Tu. F., 11 Dr. Gee...W. S., 11 Dr. Duckworth...M. Th., 11 Dr. Hensley	Dr. Powell, Tu. F. Dr. Poore, W. S. Dr. Bruce Dr. Irvine	Dr. Whipham...M. F., 12 Dr. Cavafy...Tu. S., 12 Dr. R. J. Lee (*obst.*), in-p., Tu. S., 1; out-p., Th., 12	Dr. Fagge...F., 12 Dr. Pye-Smith...W., 12 Dr. F. Taylor...M., 12 Dr. Galabin...(*obst.*) M. F., 1.30; (out-p.), Th. S., 12	Dr. Yeo...Tu. F., 1 Dr. Rutherford...M. Th., 1 Dr. Ferrier...W. S., 1 Dr. Hayes (*obst.*) Tu. Th. S., 12.30
Surgeons	Mr. Holden...Tu. F. S., 1.30 Mr. Savory...M., 1; Tu. W. Th. F. S., 1.30 Mr. Callender...daily, 1.30 Mr. T. Smith...daily, 1.30	Mr. Canton...Tu. F. Mr. Hird...M. Th. Mr. Barwell...W. S.	Mr. P. Hewett...M. F., 1 Mr. Pollock...M. F., 1 Mr. H. Lee...Tu. S., 1 Mr. Holmes...Tu. S., 1	Mr. Birkett...M. Th., 1.30 Mr. C. Forster...M. Th., 1.30 Mr. Bryant...M. Th., 1.30 Mr. Durham...M. Th. F., 1.30	Sir W. Fergusson, Bart.... Tu. Th. S., 1.30 Mr. Wood...M. W. F., 1.30 Mr. H. Smith...M. W. F., 1
Assistant-Surgeons	Mr. Willett...W. S., 12.30 Mr. Langton...Tu. F., 12.30 Mr. M. Baker...M. Th., 12.30 Mr. Marsh	Mr. Bellamy...M. Th. Mr. Fairlie Clarke...Tu. F. Mr. Bloxam...W. S.	Mr. Rouse...Tu. S., 12 Mr. Pick...M. F., 12	Mr. Howse...M. Th., 12 Mr. Davies-Colley...W. S., 12	Mr. H. R. Bell...Tu. Th. S., 1
Clinical Medicine	The Physicians...weekly	The Physicians	The Physicians (Win.)... M. F., 2; (Sum.)...M., 2	The Physicians (Win.)...S. 1.30; the Assistant-Physicians (Sum.)...W., 1.30	Dr. Johnson...alt. M., 3 Dr. Beale...alt. F., 3 Dr. Duffin...alt. Tu., 3 Sir W. Fergusson..alt. Th. 3 Mr. Wood...alt. F., 3
Clinical Surgery	Sir J. Paget (Consulting Surgeon), and the Surgeons...weekly	Mr. Hancock and the Surgeons	The Surgeons...Tu., 2	The Surgeons (Win.)...W., 1.30; the Assistant-Surgeons (Sum.)...F., 1.30	
Clinical Midwifery	Dr. Greenhalgh...weekly	Dr. J. W. Black......Fortnightly	Dr. J. Clarke	Dr. Hicks (Win.)..W., 1.30; Dr. Galabin (Sum.)... M., 3	Dr. Playfair...alt. Th., 3
Operations	Wed. and Sat. 1.30	Saturday, 2	Thursday, 1	Tuesday and Friday, 1.30; on Eye, M. F., 1.30	Wednesday, 2; Saturday, 1.30
SUMMER SESSION.					
Materia Medica	Dr. Farre & Dr. Brunton ...Tu. Th. S., 10; W., 11.30	Dr. Powell...Tu. Th. S., 9.45	Dr. Dickinson...M. W. F., 3	Dr. Moxon...Tu. Th. F., 3	Dr. Baxter...Tu. W. Th. F., 8 A.M.
Botany	Rev. G. Henslow...M. W., F., 10	Dr. Dowson...Tu. Th. S., 11	Dr. Whipham...Tu., 3; W. Th., 12	Dr. Stokoe...Tu. Th. S., 11.30	Mr. Bentley...M. Tu. Th., F., 12.15
Midwifery	Dr. Greenhalgh...Tu. W. F. S., 8.30 A.M.	Dr. J. W. Black...M. Tu. W. Th., 3	Dr. J. Clarke & Dr. R. J. Lee...M. W. F., 9	Dr. Braxton Hicks...Tu. W. Th. F., 9	Dr. Playfair...Tu. W. Th. F., 9
Forensic Medicine	Dr. R. Southey...Tu. Th. S., 9	Dr. Poore...M. W. F., 9	Dr. Wadham...Tu. Th. S., 9	Dr. A. Taylor...Tu. Th. S., 10	Dr. Ferrier...M. Tu. W. F., 12.15
Practical Chemistry	Dr. Russell...M. Tu. F., 11	Mr. Heaton	Dr. Noad...M. W. Th. F., 10	Dr. Debus...M. W. F., 10 to 1	Mr. Bloxam...M. W. Th., 10.15
Comparative Anatomy	Dr. Church (Winter)...M. Th., 11	Mr. A. H. Garrod...Tu. F., 4	Dr. Cavafy (Sum.) M. F., 4.30	Dr. Pye-Smith (Sum.)... M. F., 1.30	Mr. Garrod (Sum.)...Tu. F. S., 10.15
Practical Physiology and Histology	Mr. Symons (Practical Phys.); Dr Klein (Hist.) ...M., 2.30 (Win.)	Dr. Bruce (Winter)	Mr. Watuey...Tu. Th. S., 10	Dr. Pye-Smith (Win.)...M. Th. S., 1.30 to 3	Demonstrator (Win.)..Tu., 11.15; (Sum.)...M. W. F., 4
Pathology and Morbid Anatomy	Dr. Gee (lect.)...W., 9.30; (demons.), Medical, 12; Surgical, 2.30	Dr. T. H. Green (Sum.)... M. W. Th; Mr. Bloxam (Surg.)...Sum.	Dr. Dickinson (Win.)...Th., 3; Mr. J. W. Haward (demons.) W. 12	Dr. Fagge & Dr. Goodhart (dem.)...daily, 2.30; Dr. Fagge (lect.), Sum. S., 9	Dr. Beale (Sum.)...Tu. Th., 4
Psychological Medicine	Dr. Claye Shaw (Sum.)... Th., 12	Dr. W. J. Hunt...(Sum.) M., 12	Dr. Blandford	Dr. Savage (Sum.)...M., 10	Dr. Sheppard (Sum.)... 4
Public Health	Dr. Southey (Jan., Feb.)... F., 3.30	Mr. Heaton, Dr. Poore, & Mr. Eassie..Tu. Th. F., 2	With Medicine	Dr. F. Taylor (Sum.)...W., 12.15	Dr. Guy
Practical and Operative Surgery	Mr. Willett......M. W. F., 2.30; Mr. Langton and Mr. Marsh	Mr. Bellamy...daily (Sum.) Mr. Clarke...Th., 4	Mr. Pick (Sum.)...M. W. F., 3	Mr. Davies-Colley (Sum.) ...M. Th., 3.30	...
Ophthalmic Medicine and Surgery	Mr. Power (vis.)...Tu. Th., 1.30; (lect.) Tu. W., 12.45; Mr. Vernon (vis.)...Th. S., 1.30; (dem.)...W., 2.	...	Mr. R. B. Carter (vis.)... W. S., 2; Win. (lect.) M., 10	Mr. Bader (vis.) Tu. S., 1.30; (lect.) (Sum.) Th., 2; Mr. Higgens (out-p.) Tu. F., 12	Mr. Soelberg Wells (vis.)... Tu. Th. S., 1; clin. lect. (Win.)...alt. M., 3
Dental Surgery	Mr. Coleman (vis.)...F., 9; (lect.) F., 10.30 (Oct.–Dec.)	Mr. Fairbank...(vis.) M. W. F., 10; (lect.) in Sum.	Mr. Vasey (vis.) Tu. S., 9; Th., 1; (lect.) Sum. Tu., 10	Mr. J. Salter...Th., 12; Mr. Moon...Tu. F., 12	Mr. Cartwright..Tu. F., 10; clin. (Win.) alt. Tu., 10.30
Aural Surgery	Mr. Langton...F., 2.30	...	Mr. Dalby (vis.)...Tu., 2; (lect.) Sum., W., 3	Mr. Purves...Tu. F., 12	...
Diseases of Skin	Dr. Duckworth...F., 1.30	Dr. Sparks...(vis.) Tu. S.; (lect.) Th., Sum.	Dr. Whipham (vis.) Th., 2; (lect.) Sum., Th., 2	Dr. Fagge & Dr. F. Taylor ...Tu., 12	Dr. Duffin, Tu.
Vaccination	Dr. Gee & Dr. Duckworth ...W.	Mr. R. W. Dunn	Obstetric Assistant, Th., 10	...	Mr. R. W. Dunn
Miscellaneous	*Natural Philosophy:* Dr. Hensley *Orthopædic Surgery:* Mr. Willett...F., 12.30	*Auscultation:* Dr. Green, S. *Diseases of Children:* Dr. Bruce...W. S. *Electro-Therapeutics:* (lect.) Dr. Poore...Tu. F. (Feb.) *Laryngoscope:* Dr. Sparks ...Th., Oct., Nov., Dec.	*Orthopædic Surgery:* Mr. Pick...W., 2 *Physiological Chemistry:* Mr. S. W. Moore...(Win.) M. W. F., 10 *Osteology:* Mr. Frost... daily, exc. M., 10	*Morbid Histology:* Mr. Howse...Tu. F., 1 (Sum.) *Natural Philosophy:* Mr. Reinold..S., 1 (Win.)	*Diseases of Throat and Laryngoscope:* Dr. Johnson...W., 3 *Tutor's Class:* (Win.)...M. W. F., 5; (Sum.) daily, exc. S., 9

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1874-5.

For further particulars regarding each Hospital and Medical School, see pp. 348 et seq.

London Hospital.	St. Mary's Hospital.	Middlesex Hospital.	St. Thomas's Hospital.	University College and Hospital.	Westminster Hospital.
Mr. McCarthy...M. W. Th., 4	Dr. Lawson...M. W. S., 12	Mr. Lowne...Tu. Th. S., 9	Dr. Ord and Dr. J. Harley M. W. F., 4	Dr. Sanderson...M.W.F.,10 Mr. Schäfer...Tu. Th., 10	Dr. Maclurc...M. W. F., 4
Mr. Rivington...M. Tu. Th. F., 3	Mr. Norton...M. Tu. Th. F., 2.45	Mr. Morris...M. Tu. Th. F., 4	Mr Mason & Mr Wagstaffe.. M.Tu.Th.F.,3; W.,12.30	Mr. Ellis...daily, 12	Mr. Davy, Tu. W. Th. F., 12
Mr. Adams and Mr. Reeves ...10 to 3, excepting W. and S. aft.	Mr. E. Owen & Mr. Giles ...daily, 9 to 5, exc. S., 9 to 1	Mr. Hensman and Mr. Karop...daily, 9 to 4	Mr. Mason, Mr. Wagstaffe, Mr. Rainey, and Mr. Reid ...daily, 9 to 3; S., 9 to 2	Mr. Ellis, Mr. Thane, Mr. Pepper, & Mr. Browne	Mr. Cooke and Mr. Verdon ...daily, 10 to 1
Dr. Letheby and Dr. Tidy ...M. W. F., 10.30	Dr. Wright...M. Tu. Th. F., 9	Mr. Heisch...M. Th. F., 3; S., 11	Dr. Bernays...Tu. Th. F., 12	Dr. Williamson...daily exc. S.11; (exerc.)Tu.W.Th.F.9	Dr. Dupré...W. Th. F., 3
Dr. H. Davies, Dr. Ramskill, and Dr. Down (bef. Chr.)...M. W. Th., 9.15 (aft.); Th., 9.15; Tu. F., 4	Dr. Chambers and Dr. Broadbent...M. W. Th., 4	Dr. Greenhow...M. W. F., 9	Dr. Peacock and Dr. Murchison...M. Th. or F., 2; W., 5	Dr. Reynolds...daily, exc. M., 9	Dr. Anstic...M. W. Th. 3
Mr. Couper...Tu. F. S., 9	Mr. J. R. Lane and Mr. Gascoyen...Tu. F., 4; W. 3	Mr. De Morgan...M. W. Th., 3	Mr. S. Jones and Mr. Mac Cormac..M. or Tu. Th. F., 5	Mr. Marshall...Tu. W. F., 4	Mr. Cowell...Tu. Th., 4; F., 3
Dr. A. Clark...M. Th., 2 Dr. Ramskill...W. F., 2 Dr. Down...Tu. F., 2 Dr. H. Jackson...M. Th., 2 Dr. Sutton...M. Th., 1.30	Dr. H. Jones...M. Th., 1.15 Dr. Sieveking...Tu. F., 1.15 Dr. Broadbeut...W. S., 1.15	Dr. H. Thompson...Tu. Th. S., 1 Dr. Greenhow...Tu. Th. S., 1 Dr. R. Liveing...M. W. F., 1.30	Dr. Peacock Dr. Bristowe Dr. Clapton Dr. Murchison } 9 A.M. daily.	Sir W. Jenner, Bart. Dr. Reynolds Dr. Wilson Fox Dr. Ringer Dr. C. Bastian } 1 and 2 daily.	Dr. Basham...M. Th., 1.30 Dr. Fincham...W. S., 1.30 Dr. Austie...Tu. F., 1.30
Dr. Head ..Tu. F., 1.30 Dr. Palfrey...W. S., 1.30 Dr. Fenwick..Tu. F., 1.30 Dr. Woodman...Tu. F., 1.30 Dr. S. Mackenzie..W. S. 1.30 Dr. Sansom...M. Th., 1.30	Dr. Meadows...Tu. F., 9.30 Dr. Cheadle...Tu. F., 1 Dr. Lawson...W. S., 1 Dr. Shepherd...M. Th., 1 Dr. Wiltshire (*obst.*)...Tu. F., 1.30	Dr. H. Davis...Tu. F., 1.30 Dr. Cayley...M. W., 8.30 Dr. R. Kiug...Th., 8.30; S., 4 Dr. G. H. Evans...Tu., 4; F., 8.30 Dr. Edis (*obst.*)...W. S., 1.30	Dr. Barnes... Dr. Stone... Dr. Ord... Dr. J. Harley... Dr. Payne Dr. Gervis (*obst.*)	Dr. Graily Hewitt...Twice weekly Dr. F. T. Roberts Dr. Gowers Dr. J. Williams (*obst.*)	Dr. Potter...Tu. F., 3 Dr. Gibb...Tu. F., 1 Dr. Sturges...W. S., 1 Dr. Allchin...M. Th., 1 Dr. Grigg (*obst.*)...Tu. F., 1
Mr. Hntchinson...M. Th., 2 Mr. Maunder...Tu. F., 1.30 Mr. Couper...W. S., 1.30 Mr. Rivington...M. Th., 1.30	Mr. S. Smith...M. Th., 1.15 Mr. Walton...W. S., 1.15 Mr. J. R. Lane...Tu. F., 1.15 Mr. Gascoyen...M. Th., 1	Mr. De Morgan...M. F., 1 Mr. Nunn...Tu. F., 1 Mr. Hulke...M. Th., 1 Mr. Lawson...Th. S., 1	Mr. Simon Mr. S. Jones Mr. Croft Mr. Mac Cormac } 9 A.M. daily.	Mr. Erichsen Mr. Marshall Sir H. Thompson Mr. Berkelcy Hill Mr. C. Heath } 1 & 2 daily.	Mr. Holthouse...Tu. F., 1.30 Mr. Cowell...M. Th., 1.30 Mr. Davy...W. S., 1.30
Mr. J. Adams...Tu. F., 1.30 Mr. Tay...M. Th., 1.30 Mr. McCarthy...M. Th., 1.30 Mr. Reeves...Tu. S., 1.30	Mr. A. T. Norton...W. S., 1 Mr. E. Owen,..Tu. F., 1	Mr. Morris...M. F., 1 (*cancer*); Th., 1.30 Mr. A. Clark...Th. S., 1	Mr. F. Mason... Mr. H. Arnott... Mr. Wagstaffe...	Mr. Marcus Beck	Mr. T. Cooke...M. Th., 1 Mr. Bond...Tu. F., 1 Mr. Keene, W. S., 1
Physicians (Win.) Assistant Physicians (Sum.) in rotation twice weekly	Dr. H. Joues...Th. Dr. Sieveking...alt. F. Dr. Broadbent...alt. S.	The Physicians...F., 3	The Physicians, after or during visits	Sir W. Jenner & Dr. Reynolds...M.Tu.Th.F.,1 to 3 Dr. W. Fox...Twice weekly	Dr. Basham, 1st, 3rd, 5th Th. Dr. Fincham, 2nd & 4th W. Dr. Anstie, 2nd and 4th F.
The Surgeons	Mr. S. Smith...M. Mr. H. Walton...alt. S. Mr. J. R. Lane...alt. Tu.	The Surgeons...Tu., 3	The Surgeons, after or during visits	Mr. Marshall and Sir H. Thompson...M.W.S.,1 to 3; Mr. Erichsen, weekly;	Mr. Holthouse, 1st, 3d, 5th F. Mr. Davy, 2nd and 4th S. Mr. Cowell, 2nd & 4th Th.
Dr. Head...2nd F. in mo. Dr. Palfrey Sum. ...alt. T.	Dr. A. Meadows...alt. Tu.	Dr. Hall Davis...Tu., 10	Dr. Barnes...Tu., 4	Dr. G. Hewitt, fortnightly	Dr. Potter, 1st and 3rd F.
Wednesday, 2	Wednesday, 1.30	Wednesday, 1	Wednesday and Saturday, 1.30; S., 9.30; Eye, Th., 3	Wednesday, 2	Tuesday, 2
Dr. Prosser James...Tu. Th. F., 4	Dr. Farquharson...Tu. W. F. S., 12	Dr. Thorowgood...M. W. F., 4	Dr. Payne...M. W. F., 8	Dr. Ringer...M., 9; Tu. W. Th. F., 10	Dr. Sturges...M. W. Th., 3
Mr. Baker...M. W. F., 11	Dr. Trimen...M. W. F., 10.30	Mr. Hensman...M. W. F., 10	Mr. A. W. Bennett...Tu. Th. S., 8 A.M.	Mr. Oliver...daily, exc. S., 8 A.M.	Mr. Holmes...M. W. F., 9
Dr. Head...M. W. Th. F., 3	Dr. A. Meadows...Tu. W. Th. F., 9	Dr. Hall Davis...Tu. Th. S., 9	Dr. Barnes...M. Tu. Th. F., 3	Dr. Graily Hewitt...Tu. W. F. S., 9	Dr. Potter...Tu. W. F., 4
Mr. Rodgers and Dr. Tidy ...daily exc. S., 10	Dr. Raudall...M. W. Th., 10	Dr. R. King...M. W. F., 9	Dr. Stone and Dr. Gervis ...M., 2; Tu. S., 12; F., 1	Dr. Maudsley...Tu. W. Th. F., 10	Mr. Bond and Dr. Dupré ...Tu. W. F., 3
Dr. Letheby...M. Th. S., 9	Dr. Wright...Inorg. Tu. F. S., 9; Organ. Tu. F., 10	Mr. Heisch...M. Th., 3; F., 11.30	Dr. Bernays...Tu. Th. S., 11	Dr. Williamson (elem.), Tu. W. Th. F., 11; (sen.), M. S., 10; M. W. F., 3	Dr. Dupré...M. W. F., 10
...Tu. Th., 11	Mr. St. G. Mivart...(Sum.) Tu. Th., 11	Mr. Hensman (Sum.)...Tu. Th., 4	Mr. Stewart (Sum.)...M. W., 11.30		Mr. Carter Blake (Sum.)... W. S., 11
Mr. McCarthy...M. W. Th., 4	Dr. Shepherd...(Win.) Tu. W. F., 10.	Mr. Lowne (Sum.)...M. W. Th., 9	Dr. Ord and Dr. Harley (Sum.)...M. Th. F., 1.30	Dr. Sanderson...Oct. Nov. Dec., Jan., daily, 11; Feb. Mar., M. W. F. S., 9	Dr. W. H. Allchin (Win.)... Tu. F., 1
Dr. Sutton (Win. and Sum.) ...Th., 12.30	Dr. Cheadle...(Win.) Tu. F., 12	Dr. Caylcy (Win.) M. Th., 4	Dr. Bristowe...Th., 4 Mr. Arnott...M., 3 to 5	Dr. Bastian (Sum.) M. Th., 9; F., 4; Mr. Beck (Surg.) Jan. Feb. Mar., M. Th., 4	Dr. Allchin (lect.) (Sum.) M. Th., 4; Tu., 9; Dr. Allchin & Mr Cheyne (dem.) 2
Dr. H. Jackson	With Forensic Medicine	Dr. H. Rayner (Sum.)	Dr. W. R. Williams (Sum.) ...F., 12	Dr. Sankey (Sum.)...M. Tu. W., 4; (clin.), Tu., 2	Dr. Sutherland
With Forensic Medicino	With Forensic Medicine	Dr. G. H. Evans (Sum.)	With Forensic Medicine	Dr. Corfield (Sum.)...Tu. Th., 4	With Forensic Medicine
Mr. Maunder (Sum.)	Mr. Gascoyen	Mr. Hulke, Mr. Lawson, and Mr. Morris	Mr. Croft (Win.)...M. or Tu., 5; (Sum.) Tu. F., 4	Mr. Hill (Oct. Nov. Dec.)... M. Th., 4; Mr. Heath & Mr. M. Beck (Wiu. & Sum.)	Mr. Cheyne (bandaging, etc.), (Sum.)...W. F., 12
Mr. Couper lect. (June) Tu. F., 8 A.M.; Mr. J. Adams and Mr. Tay, W. S., 9	Mr. Walton...Vis. M. Th., 1.30; lect. (Sum.) M., 2.45	Mr. Hulke...Tu. F., 8.30	Mr. Liebreich (vis.)...M. Th., 3; lect. (Sum.) M., 4	Mr. W. Jones & Mr. Streatfeild (vis.) M. W. F., 2; lect. (Sum.), Tu., 3; (clin.), alt. weeks	Mr. Cowell (vis.), M. Th., 2.30; (lect.) (Sum.), M., 2.45
Mr. Barrett (vis.) Tu. 10; lect. (March) 5	Mr. H. Hayward...W. S., 9.30	Mr. Turner...daily, 9	Mr. Elliott...Tu. F., 10	Mr. Ibbetson, Jan. M.... Th., 4; (vis.), W., 10	Mr. J. Walker (vis.), W. S., 9.15; (lect.), W., 9.30
Mr. Rivington and Mr. Reeves...S., 9.30	Mr. Field (lect.) F., 3; (vis.) Tu. F., 2	Mr. A. Clark...Tu. 9	...	...	Mr. Keene (June) Th., 9; (vis.), W., 1
Mr. McCarthy...W., 9	Dr. Jones & Dr. Cheadle... Tu. Th., 1.30; Dr. Cheadle (lect.) Th., 2 (Sum.)	Dr. R. Liveing (Sum.)... Th., 4	Dr. Payne (out-p.)...M., 12.30	Dr. Tilbury Fox (vis.), S., 9; (clin. lect. alt. weeks)	Mr. Bond (vis.), Th., 1; (lect.) (Feb. Mar.), Th., 3
Assist. Obst. Phys. and Resident Accoucheur	Mr. Sumner	Dr. W. Pearse	Dr. Gervis...W., 12.30	Mr. G. L. Cooper or Mr. W. Pearse	Dr. W. Pearse
Diseases of Throat: Dr. M. Mackenzie (Sum.)	*Diseases of Throat:* Mr. Norton...W. S., 2	*Diseases of Larynx:* Mr. A. Clark...Tu., 9 *Parasitic Diseases:* Dr. Cobbold	*Physics and Natural Philosophy:* Dr. Stone (Wiu.)...S., 12		*Electro-Therapeutics:* Dr. Austie *Auscultation:* Dr. Sturges *Natural Philosophy:* Mr. Brooke (Sum.), Tu., 3

GUIDE TO HOSPITALS AND MEDICAL SCHOOLS IN THE PROVINCES: 1874-5.

For further particulars regarding each Hospital and Medical School, see pp. 354.

Lectures, etc.	Birmingham Queen's College.	Bristol Medical School.	Leeds School of Medicine.	Liverpool Royal Infirmary School of Medicine.	Owens College (Manchester Royal) School of Medicine.	Sheffield Medical School.	University of Durham College of Medicine, Newcastle.
WINTER SESSION.							
Anatomy and Physiology.	Dr. Norris and Mr. T. H. Bartleet..M. Th., 4	Mr. Atchley and Dr. R. S. Smith..M. W. F., 9.30	Mr. Wright & Mr. Horsfall .M. W , 10: Tu. F., 12	Dr. Caton .. Tu. Th. S., 9.15	Mr. W. Smith..Tu. W. Th., 1	Mr. S. Morton and Dr. O'Keefe .M. W., 4	Dr. H. A. Nicholson .... Three days weekly, 3
Anatomy, Descriptive & Surgical	Mr. Thomas..M. W. F., 1	Mr. Board and Mr. Dobson..M. W. F. S., 10.30	Dr. Land, Mr. Nunneley, Mr. Robinson..Tu. Th. F. S., 10	Mr. W. M. Banks..M., Tu. W. Th. F., 3	Dr. M. Watson..Daily, exc. S., 2	Mr. W. Skinner and Mr. E. Skinner..M. W. F., 6; Tu. Th., 5	Dr. Nesham, Dr. L. Armstrong, & Mr. Russell.. Four days, 8-45 A.M.
Demonstrations and Dissections..	Dr. Jolly and Mr. Pope ..daily	Mr. Chute, Mr. Lawrence, and Dr. Waldo	Mr. Oglesby, Mr. Robinson, and Mr. McGill.. Daily	Mr. Harris..Daily, 11 to 1, and 2 to 4	Mr. Perrin..Daily	Mr. Clarke, Dr. T. Morton, Dr. Thomas..Daily, exc. S., 10 to 2	Mr. Reoch .. Daily, from 10 to 4
Chemistry................	Dr. Hill..Tu. Th. F., 12	Mr. Coomber..M. W. F., 8.30	Mr. T. Fairley..M. Tu. Th. F., 11	Dr. J. C. Brown..M. Tu. Th. F., 10.30	Dr. Roscoe..Daily, 9.30; and Mr. Schorlemmer	Mr. Allen....M. W. F., 11.30	Mr. Freire-Marreco .... Four days a week, 4
Medicine	Dr. Foster..Tu. W. F., 3	Dr. Martyn and Dr. Spencer..M. W. F., 8.30 A.M.	Dr. Heaton & Dr. Allbutt M. Tu. W. Th., 5	Dr. Waters..M. W. F., 9.15	Dr. Roberts and Dr. Morgan..M. W. F., 4	Dr. Bartolome and Dr. J. C. Hall..M. W. F., 5	Dr. Philipson..M. W. F., 5
Surgery	Mr. Pemberton and Mr. F. Jordan..Tu. W. F., 4	Mr. Coe and Mr. Tibbits ..Tu. Th. S., 830 A.M.	Mr. Wheelhouse, Mr. Teale, and Mr. Jessop ..M. W. S., 9	Mr. R. Harrison....M. W. F., 4	Mr. G. Southam and Mr. Lund..M., 11; W. F., 3	Mr. Favell, Mr. Parker, and Mr. A. Jackson.. M. W. F., 8 A.M.	Dr. Heath..M. W. F., 6
Hospital Practice	General Hospital (*a*) Queen's Hospital (*b*) Daily, 9 to 12	Royal Infirmary (*c*) General Hospital (*d*) Daily, 1 to 3	Leeds General Infirmary (*e*)	Liverpool Royal Infirmary (*f*)	Manchester Royal Infirmary (*g*)..Daily, 10 to 1	Sheffield Infirmary (*h*) Sheffield Hospital (*i*)	Newcastle Imfirmary (*k*)
Clinical Medicine	Physicians of Hospitals (*a*) 10 A.M., (*b*) 9.15 A.M.	Royal Infirmary: Tu. S., 11.30 General Hospital: Two days weekly	Physicians of Infirmary	Physicians, Royal Infirmary..Weekly	Physicians Royal Infirmary..M. W. F., 9 A.M.	Physicians of Infirmary and Hospital..Tu., 8 P.M.	Physicians of Infirmary
Clinical Surgery	Surgeons of Hospitals (*a*, *b*) 10 A.M.	Royal Infirmary; F., 12 General Hospital; W., 12	Surgeons of Infirmary	Surgeons, Royal Infirmary..Weekly	Surgeons, Royal Infirmary..M., 10.30 A.M.	Surgeons of Infirmary & Hospital..Th., 8 P.M.	Surgeons of Infirmary
SUMMER SESSION.							
Materia Medica	Dr. Mackey ....M. W. F., 4	Dr. Burder..M. Tu. Th. F., 9	Dr. Eddison..M. W. Th. F., 11	Dr. J. B. Nevins....Tu. Th. S., 8.30 A.M.	Mr. Somers & Dr. Leech ..M. Tu. W. Th., 1	Dr. Young..M. W. F., 8 A.M.	Dr. Arnison..Daily, exc. S., 4.45
Midwifery, etc.	Mr. Clay and Mr. Bassett..M. Tu. Th. F., 1	Dr. Swayne..Daily, exc. S., 8 A.M.	Mr. W. Hall....M. Tu. Th. F., 4	Dr. Steele....M. W. F., 9 A.M.	Dr. Thorburn....Tu. W. Th. F., 1	Dr. Hime....M. W. F., 8 P.M.	Dr. Gibson..Daily. 8.30 A.M.
Botany	Dr. W. Hinds..M. W. F., 3	Mr. Leipner..Daily, exc. S., 7 A.M.	Mr. E. Atkinson..Tu. Th. F., 12	Mr. W. Carter ..Tu. Th. S., 9.30	Mr. W. C. Williamson..M. Tu. W. Th., 3.30; F., 2.30	Mr. Birks .... Tu. Th., 8 A.M.	Mr. H. E. Armstrong.. M. W. Th. F., 3.45
Forensic Medicine	Dr. Hill & Mr. Wilders ..Tu. Th. F., 12	Mr. Keall..M. W. Th., 9 A.M.	Mr. Scattergood..M. Tu. Th., 5; F., 10	Dr. E. Whittle and Dr. J. C. Brown..M. W. F., 3	Mr. G. M. Harrison..M. W. F., 2	Mr. Baker and Mr. Harrison..Tu. Th., 5	Dr. B. Bramwell..M. Tu. Th. F., 11
Practical Chemistry	Mr. Anderson..Th., 2; F., 12	Mr. Coomber..Daily, ex. S. 8 A.M.	Mr. Fairley....M. Tu., 9.30	Dr. J. C. Brown..M. Tu. S., 10.30	Dr. Roscoe & Mr. Schorlemmer..M. W., 1.30	Mr. Allen	Mr. Freire-Marreco..... Daily, 10 to 5
Comparative Anatomy ...	Dr. Savage..Th., 3	Mr. Atchley..M. W. Th. S., 10	Dr. Allbutt and Mr. E. Atkinson..M. W., 12	Dr. Dickinson (twice weekly)	Mr. Williamson..M. Tu. W. Th., 3.30; F., 2.30	Mr. W. Jackson..F., 5	....
Practical Physiology	....	Lect. on Physiology	. . .	Mr. Parker	Dr. A. Gamgee..Tu. F., 1	Dr. Thomas..W. Th., 4	Dr. Nicholson
Pathology	Mr. Rickards (at Gen. Hospital)	Dr. Martyn & Dr. Spencer (Sum.) M. W. F., 7	Mr. J. Walker, Tu. F., 12; Mr. Oglesby, T. W. Th., 2	Dr. Davidson (Win.).... T., 4	Dr. Simpson & Dr. Dreschfeld (Win.)..Tu. Th., 3	Mr. Laver	Dr. Gibb (Sum)..W., 6.45
Operative Surgery	....	Mr. Coe and Mr. Tibbits (see above)	Mr. Wheelhouse, Mr. Teale, and Mr. Jessop	Mr. Harrison (see above)	....	Mr. Laver (Win.), Mr. Favell and Mr. Parker (Sum)..Tu. Th., 11	Dr. Heath (Sum.)
Ophthalmic Surgery and the Ophthalmoscope ..	Mr. Solomon (Summer) ..Tu., 4	....	Mr. Nunneley, Mr. Seaton, and Dr. Land	Mr. T. S. Walker..Th., 4	Mr. Windsor (Sum.)..M. W., 4; Clin. Dem., M. 11	....	....
Vaccination..............	....	....	Mr. Holmes	Dr. Steele	Mr. E. Guest		
Miscellaneous	*Diseases of Women, etc.*: Mr. Berry and Dr. R. C. Jordan (Sum.).... *Dental Surgery*; (Sum.) ..Mr. Howkins		*Skin-Diseases*: Dr. Eddison..M., 2.30 *Aural Diseases*: Mr. Nunneley..F., 12 *Mental Diseases*: Dr. J. C. Browne.... (Sum.) F., 3: S., 4	*Diseases of Children*: Dr. Gee..W. F., 10 *Dental Surgery and Mechanics*: Mr. Snape & Mr. Stewart (Sum.) F., 9	.... *Hygiene*: Dr. A. Ransome..Tu. F., 4	*Dental Mechanics*: Mr. G. Moseley..S., 1 *Dental Surgery*: Mr. Merryweather (Sum.) ..Th., 4	*Therapeutics*: Dr. Humble..Daily, exc. S., 5.45 *Psychological Medicine*: Mr. Wickham *Practical Pharmacy*: Mr. Proctor..Tu., 7.30

(*a*) *Physicians*: Dr. Bell Fletcher, Dr. Russell, Dr. Wade, Dr. Foster, Dr. Rickards. *Surgeons*: Mr. A. Baker, Mr. O. Pemberton, Mr. T. H. Bartleet, Mr. Goodall, Mr. R. Jolly. *Operations*: W., 12.

(*b*) *Physicians*: Dr. Heslop, Dr. Johnston, Dr. Sawyer, Dr. Mackey, *Surgeons*: Mr. West, Mr. Gamgee, Mr. F. Jordan, Mr. J. St. S. Wilders. *Obstetric Surgeon*: Mr. J. Clay. *Acting Ophthalmic Surgeon*: Mr. P. Smith. *Dental Surgeon*: Mr. C. Sims. *Operations*: S., 11.

(*c*) *Physicians*: Dr. Fairbrother, Dr. E. L. Fox, Dr. Spencer, Dr. R. S. Smith. *Surgeons*: Mr. C. Leonard, Mr. Tibbits, Mr. Steele, Mr. Board, Mr. Dowson. *Assistant-Physician*: Dr. Waldo. *Assistant-Surgeon*: Mr. D. E. Bernard. *Operations*: Tu. F., 1.30.

(*d*) *Physicians*: Dr. Martyn, Dr. Burder *Surgeons*: Mr. Coe, Mr. F. P. Lansdown, Mr. Atchley, Mr. Dobson. *Physician-Accoucheur*: Dr. Swayne. *Operations*: Th., 1.30. *Dental Surgeon*: Mr. Parson.

(*e*) *Physicians*: Dr. Heaton, Dr. Clifford Allbutt, Dr. Eddison. *Surgeons*: Mr. Wheelhouse, Mr. T. P. Teale, Mr. T. R. Jessop, Mr. E. Atkinson. *Surgeons to the Eye and Ear Department*: Mr. J. A. Nunneley, Dr. R. T. Land, Mr. Oglesby.

(*f*) *Physicians*: Dr. Turnbull, Dr. Waters, Dr. Glynn. *Surgeons*: Mr. Bickersteth, Mr. Hakes, Mr. Harrison. *Assistant-Surgeon*: Mr. Banks. *Dental Surgeon*: Mr. Snape. *Pathologist*: Mr. Parker. *Operations*: Tu., 1.

(*g*) *Physicians*: Dr. Eason Wilkinson, Dr. Watts, Dr. Browne, Dr. W. Roberts, Dr. H. Simpson, Dr. J. E. Morgan. *Surgeons*: Mr. W. Smith, Mr. Southam, Mr. F. A. Heath, Mr. Lund, Mr. Bowring. *Assistant-Physicians*: Dr. Leech, Dr. Dreschfeld. *Assistant-Surgeons*: Mr. Bradley, Mr. W. Whitehead. *Ophthalmic Surgeon*: Mr. Windsor. *Obstetric Physician*: Dr. Thorburn. *Dental Surgeon*: Mr. Smith.

(*h*) *Physicians*: Dr. de Bartolome, Dr. Law, Dr. Frank-Smith. *Surgeons*: Mr. Barber, Mr. W. F. Favell, Mr. Parker. *Operations*: Th. 12.30.

(*i*) *Physicians*: Dr. J. C. Hall, Dr. Law, Dr. H. J. Branson. *Surgeons*: Mr. Chesman, Mr. A. Jackson, Dr. Keeling. *Operations*: F., 12.30.

(*k*) *Physicians*: Dr. Embleton, Dr. Philipson. *Surgeons*: Dr. Heath, Mr. Russell, Dr. Arnison, Dr. L. Armstrong. *Assistant-Surgeons*: Mr. A. Bell, D. Hume, Mr. J. Hawthorn, Mr. C. Jeaffreson.

TABLE OF THE MEDICAL OFFICERS, PROFESSORS, AND LECTURERS IN MEDICAL SCHOOLS OF SCOTLAND.

For further particulars regarding each Hospital and Medical School, see pp. 356-57. *The letters (W.) and (S.) in this Table denote respectively Winter and Summer Courses.*

LECTURES, ETC.	ABERDEEN UNIVERSITY.	EDINBURGH UNIVERSITY. (*d.*)	SCHOOL OF MEDICINE, EDINBURGH. (*g.*)	GLASGOW UNIVERSITY. (*l.*)	GLASGOW, ANDERSON'S UNIVERSITY.
ANATOMY	Dr. Struthers, 11 (W.)	Mr. Turner, 1 (W.)	Dr. Handyside, 1 (W.)	Dr. Allen Thomson and Demonstrator, jun. 11; sen. 2 (W.); Embryol. and Dem., 11 (S.); Elem. Anat. M.W.F., 1 (S.)	Dr. A. Buchanan, 5 (W.)
ANATOMICAL DEMONSTRATIONS...	Dr. Struthers, and Demonstrator, 9 (W.); 2 (S.)	Mr. Turner, 4	Dr. Handyside, 4 (W.) 11 (S.)		Dr. A. Buchanan and Mr. Clark, 1 (W.) *q*
DISSECTIONS	9 to 4 (W. and S.)	Daily (W. and S.)	9 to 4 (W. and S.)	9 to 4 (W.); 7 to 2 (S.)	Daily (W. and S.)
PHYSIOLOGY OR INSTITUTES OF MEDICINE	Dr. Ogilvie, 4 (W.)	[Vacant] 11 (W.) *e*	Dr. Bell Pettigrew 11 (W.)	Dr. Buchanan, 4 (W.)	Dr. E. Watson, 12 (W.)
CHEMISTRY	Mr. Brazier, 3 (W.)	Dr. Crum Brown, 10 (W.)	Dr. S. Macadam, 10 (W.)	Mr. Ferguson, 10 (W.)	Dr. Thorpe, 10 (W.)
PRACTICAL CHEMISTRY	Mr. Brazier, 10 A.M. (S.)	Dr. Crum Brown (W. and S.)	Dr. Macadam, 9 to 5 (W. and S.)	Mr. Ferguson, Tu. W. Th., 10 (S.) *m*	Dr. Thorpe, 10 to 4 (S.)
MATERIA MEDICA	Dr. Harvey, 3 and 4 (S.)	Sir R. Christison, 9 (W.)	Dr. Moinet, 9 (W. & S.) Dr. W. Craig, 9 (S.)	Dr. Cowan, 11 (W.)	Dr. Morton, 3 (W.)
BOTANY	Dr. Dickie, 9 (S.)	Dr. Balfour (S.)	...	Dr. Dickson, 12 (S.) *n*	Mr. Hennedy, 10 (S.)
NATURAL HISTORY	Mr. Nicol, 2 (W.); 11 (S.) *a*	Dr. W. Thomson (S.)	...	Dr. Young, *Zoology*, 2 (S.)	
MEDICINE	Dr. Macrobin, 3 (W.)	Dr. Laycock, 3 (W.)	Dr. Haldane, Dr. Muirhead, and Dr. G. Stewart 3 (W.)	Dr. Gairdner, 12 (W.) *o*	Dr. Wood Smith 5 (W.)
SURGERY	Dr. Pirrie, 10 (W.)	Mr. Spence, 10 (W.) Operative in Summer	Dr. P. H. Watson, Dr. J. Bell, Dr. Chiene, and Dr. John Duncan, 10 (W.) *h*	Dr. G. H. B. Macleod, 1 (W.)	Dr. Dunlop, 11 (W.)
MIDWIFERY.........	Dr. Inglis, 2 (W.)	Dr. A. Simpson, 11 (W.)	Dr. Keiller, 10 (S.); Dr. M. Duncan, 11 (W.); Dr. A. Macdonald, 10 (S.)	Dr. Leishman, 3 (W.)	Dr. J. G. Wilson (S.)
FORENSIC MEDICINE	Dr. Ogston, 9 (W.) *b*	Dr. D. Maclagan (S.)	Dr. Littlejohn, 2 (W.); 11 (S.)	Dr. P. A. Simpson, 4 (W.)	Dr. A. Lindsay
PRACTICAL PHYSIOLOGY & HISTOLOGY............	...	[Vacant] (W. and S.)	Dr. Bell Pettigrew, Tu. F., 12	...	...
PATHOLOGY.........	Dr. Rodger	Dr. Sanders, 2 (W.); and in Summer	Dr. John Wyllie, 4 (W.);	Dr. J. Coats, 2 (W.)	...
HOSPITAL PRACTICE	Royal Infirmary, *c* Daily, 12	Royal Infirmary, *i*	Royal Infirmary, *i*	Royal Infirmary, *p* 9 A.M.	Royal Infirmary, 9 A.M.
CLINICAL MEDICINE	Dr. Smith-Shand, Dr. Beveridge, and Dr. A. Fraser	Drs. Laycock, Maclagan, and Sanders, M. Tu. Th. F., 12 to 2	Drs. Haldane, G. W. Balfour, G. Stewart, and J. M. Duncan (Obst.), Tu. F., 12	Dr. McCall Anderson	Physicians of Royal Infirmary, twice weekly, 9 (W. and S.)
CLINICAL SURGERY	Dr. Pirrie, Dr. Kerr, and Dr. Ogston	Mr. Lister, M. Th., 12 (W.); also in Sum.	Dr. P. H. Watson and Mr. Annandale, M. Th., 12 (W. and S.)	Dr. G. Buchanan	Surgeons of Infirmary, twice weekly, 9 (W. and S.)

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a. Zoology with Comparative Anatomy.

b. With Medical Logic.

c. ABERDEEN ROYAL INFIRMARY: *Physicians*—Dr. J. W. F. Smith Shand, Dr. Beveridge, Dr. A. Fraser; *Surgeons*—Dr. Pirrie, Dr. D. Kerr, Dr. A. Ogston; *Junior Surgeon*—Dr. Will; *Ophthalmic Surgeon*—Dr. Davidson; *Dental Surgeon*—Mr. Williamson.

d. Medical Psychology and Mental Diseases, Dr. Laycock (S.)

e. Dr. Bennett's successor is not yet appointed.

g. Vaccination, six weeks' courses in Winter and Summer, Dr. Husband. Diseases of Children, Dr. Stephenson (S.), Tu. and F., 3. Diseases of the Eye, Dr. A. Robertson (S.), Tu. and F., 3. Insanity, Dr. Batty Tuke (S.), M. and Th., 3. State Medicine and Hygiene, Dr. A. Smart, W. and S., 4 P.M.

h. Operative Surgery and Surgical Appliances, Dr. J. Bell (S.), 4: Operative Surgery and Surgical Anatomy, Dr. Chiene (S.), 4: Practical Surgery, Dr. J. Duncan (S.), 4.

i. EDINBURGH ROYAL INFIRMARY: *Physicians*—Dr. Laycock, Dr. Maclagan, Dr. Sanders, Dr. R. Haldane, Dr. G. W. Balfour, Dr. T. Grainger Stewart, Dr. J. M. Duncan, and Dr. A. R. Simpson; *Assistant-Physicians*—Dr. C. Muirhead and Dr. D. J. Brakenridge; *Consulting Surgeons*—Dr. J. Dunsmure and Dr. J. D. Gillespie; *Surgeons*—Mr. J. Spence, Dr. P. H. Watson, Mr. J. Lister, Mr. Annandale, and Dr. J. Bell; *Ophthalmic Surgeons*—Mr. Walker and Dr. D. A. Robertson; *Surgeon for Ovarian Diseases*—Dr. T. Keith; *Assistant-Surgeons*—Dr. John Duncan and Dr. J. Chiene; *Dental Surgeon*—Dr. J. Smith; *Pathologist*—Dr. J. B. Pettigrew.

k. Dr. M. Duncan gives Clinical Lectures on Diseases of Women.

l. Operative Surgery, Dr. Macleod, M., W., F., 1 (S.); Lectures on Eye, Dr. T Reid, Tu., Th., 1 (S.)

m. Chemical Laboratory from 10 A.M. to 4 P.M. (W. and S.)

n Demonstrations in the Botanical Garden, 6.30 P.M.

o. Dr. Gairdner lectures in the Summer at 12 noon on Tuesdays and Fridays, on Diseases of the Nervous System and Renal Diseases.

p. GLASGOW ROYAL INFIRMARY: *Physicians*—Dr. Gairdner, Dr. Steven, Dr. Perry, Dr. McCall Anderson, and Dr. Scott Orr; *Surgeons*—Dr. Macleod, Dr. G. Buchanan, Dr. Morton, Dr. E. Watson, and Dr. Dewar.

q. Surgical Anatomy, Dr. Buchanan, 12 (S.) Osteology for Beginners, Dr. Buchanan (S.)

[*Continued from p.* 343.]

4. Certificates of registration, character, and age must accompany the schedule when filled up and returned.

5. Candidates will be examined by the Examining Board in the following subjects: Anatomy and Physiology; Surgery; Medicine, including Therapeutics; the Diseases of Women and Children; Chemistry and Pharmacy; and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.) The eligibility of each candidate for the Army or Navy Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, Botany with special reference to Materia Medica, and French or German, and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science.

6. After passing this examination, every candidate will be required to attend one entire course of practical instruction in the Medical School at Netley, on—1. Hygiene; 2. Clinical and [Naval and*] Military Medicine; 3. Clinical and [Naval and*] Military Surgery; 4. Pathology of Diseases and Injuries incidental to [Naval and*] Military Service.

7. At its conclusion, the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of an Army or Naval Medical Officer, he will be eligible for a commission as Assistant-Surgeon.

8. During the period of his residence at the Netley Medical School, each candidate will receive an allowance of 5s. *per diem* with quarters, or 7s. *per diem* without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform (viz., the Regulation undress uniform of an Assistant-Surgeon, but without the sword).

9. All candidates will be required to conform to such rules of discipline as the Senate may, from time to time, enact.

10. After completing three years' full-pay service, Assistant-Surgeons will be allowed to be examined for the rank of Surgeon, but no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years [two of which must have been in a ship actually employed at sea.*]

NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

In addition to the Tables of the Classes, etc., and hours of attendance, given at pages 344-47, we subjoin Abstracts of the Programmes issued by the several Medical Schools. We have extracted those points of information which are of most interest to the student, in addition to those given in the tables. It will be seen, that most of the Schools make arrangements by which the course of instruction required by the Examining Boards for the general practitioner can be compounded for, by paying a sum either at once or in periodical instalments. For the information of those who may wish to attend separate classes in any school for one or more sessions, we give the respective fees demanded in each school. To avoid repetition, and save space, the titles of the classes are indicated by letters, thus:

a. Anatomy and Physiology.
b. Practical Physiology and Histology.
c. Descriptive and Surgical Anatomy.
d. Demonstrations and Dissections.
e. Chemistry.
f. Practical Chemistry.
g. Materia Medica.
h. Medicine.
i. Surgery.
k. Practical Surgery.
l. Ophthalmic Surgery.
m. Dental Surgery.
n. Midwifery and Diseases of Women.
o. Pathology and Morbid Anatomy.
p. Forensic Medicine.
q. Botany.
r. Comparative Anatomy.
s. Mental Diseases.
t. Public Health.
H.P. Hospital Practice.

ST. BARTHOLOMEW'S HOSPITAL.—Aggregate Fee, £105; or three instalments of £36 15s. each in the first winter, first summer, and second winter.—For general subjects for students of Dental Surgery, £52 10s.; or, first winter, £26 5s.; first summer, £26 5s.—Separate Classes: *a* and *c*, single, £7 7s.; perpetual, £10 10s.; *b* (Practical Physiology), *e*, *h*, *i*, *k* (Practical Surgery), single, £5 5s.; perpetual, £7 7s.; *b* (Histology), *f*, single, £2 2s.; *d*, one course, £3 3s.; one session, £5 5s.; *g*, *n*, single, £5 5s.; perpetual, £6 6s.; *k* (Operative Surgery), one course, £4 4s.; *l*, *m*, *o*, *r*, *s*, single, £2 2s.; perpetual, £3 3s.; *p*, *g*, single, £3 3s.; perpetual, £4 4s. The lectures on Dental and on Ophthalmic Surgery and on Mental Diseases, and the Demonstrations on Histology, are free to students of the Hospital. H.P., Medical—3 months, £8 8s.; 6 months, £12 12s.; 2 years, £18 18s; perpetual, £26 5s. Surgical—3 months, £10 10s.; 6 months, £15 15s.; 12 months, £21; perpetual, £26 5s. House-Physicianships and House-Surgeoncies, £26 5s. Dresserships—3 months, £12 12s.; 6 months, £18 18s.; 12 months, £26 5s.

The Clinical Practice of the Hospital now comprises a service of 710 beds: of these 227 are allotted to the medical cases, 322 to the surgical cases, 26 to diseases of the eye, 20 to the diseases of women, and 81 to syphilitic cases; while 34 are at the Convalescent Hospital at Highgate. Children are admitted into both the medical and surgical wards; those under five years of age being received into the female wards.

Museums, etc.—The Anatomical Museum, and the Museum of Materia Medica and of Botany, are open to students daily from 10 A.M. to 4 P.M. The Reading Room is open every day; during winter from 10 to 5; summer, 9 to 5; vacations, 10 to 2.30. Subscription to Library, one year, £1 1s.; 4 years, £2 2s.

College.—Students are admitted to residence on the recommendation of a medical officer of the Hospital, which may be obtained on adducing satisfactory evidence of good moral character. The entrance-fee is £2 2s. Information regarding the College may be obtained on application to the Warden, Dr. Norman Moore.

Examinations.—Students preparing for their examinations are arranged in classes, and examined by the lecturers and demonstrators. An examination of all students of the first year is held at the close of the first winter and first summer sessions.

Appointments.—Four House-Physicians and four House-Surgeons (who must be qualified to practise) are appointed annually. Fee £26 5s. Each of these officers receives a salary of £25. Two Midwifery Assistants are appointed every six months. An Ophthalmic House-Surgeon is appointed for six months. (The preceding are provided with rooms.) The Clinical Clerks to the medical in-patients, and the Clerks to the Physician-Accoucheurs, are chosen from the most diligent students. Sixteen dressers to the surgical in-patients and the surgical casualty department are selected each year from the students of the second year. Other dresserships may be obtained by payment of the usual fees. There are also Clerks and Dressers to the Assistant-Physicians and the Assistant-Surgeons in the special departments.

Exhibitions, Scholarships, and Prizes.—Open Scholarship in Science, value £100, for one year, to be competed for on September 27th, by candidates under twenty-five years of age, who have not entered to the medical or surgical practice of any metropolitan medical school. The subjects are Physics, Chemistry, Botany, and Zoology. *First Year.*—Preliminary Scientific Exhibition, on October 26th; subjects as above; value £50, for one year; confined to students of less than six months' standing. The holder of the Open Scholarship is not eligible. Jeaffreson Exhibition: £20 yearly, tenable for two years. Confined to students of less than six months' standing. Examination on October 19th. Subjects, those of Preliminary Education appointed by the General Medical Council. Three Junior Scholarships, of the value of £50, £30, and £20, after the general examinations in first year's subjects at the end of the winter and summer sessions. Treasurer's Prize for Practical Anatomy, junior.—*Second Year.* Foster Prize for Practical Anatomy, senior.—*Second or Third Year.* Senior Scholarship, value £50, in Anatomy, Physiology, and Chemistry. Wix Prize: subject, "The Healing Art, so far from tending to Materialism, confirms, by its induction of accumulated evidence of Design, Man's Instincts of Natural Religion; and thus, on St. Paul's showing, prepares his mind for the reception of Revealed Religion." Hichen's Prize: subject of examination, Bishop Butler's *Analogy.*—*Third or Fourth Year.* Lawrence Scholarship and Gold Medal, value £42: subjects, Anatomy, Animal and Vegetable Physiology, Chemistry, and Medicine and Surgery. Two Brackenbury Scholarships in Medicine and Surgery. Candidates for the Lawrence and Brackenbury Scholarships may not compete before the end of the third winter session, nor later than the beginning of the fifth winter session in the hospital. Bentley Prize, for the best report of not less than twelve medical cases occurring in the wards of the hospital during the previous year. The Kirkes Gold Medal for Clinical Medicine. The conditions under which the exhibitions, scholarships, and prizes are awarded, will be found in the prospectus of the College.

The Abernethian Society, composed of the teachers and students of the Hospital, meets in the Library on every Thursday evening at 8 P.M. during the winter session, for the reading and discussion of papers on subjects of medical science or practice, and for the exhibiiion of pathological specimens.

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* Naval Medical Service.

Communications regarding the Hospital and Medical College must be addressed to the Warden of the College, St. Bartholomew's Hospital.

Charing Cross Hospital.—Aggregate fee for lectures (including matriculation), £76 5s., payable in five instalments. Matriculated Students: Matriculation fee, £2 2s.; *a*, *c*, *h*, two courses, £6 6s.; *d*, *i*, two courses, £5 5s.; *e*, single, £5 5s.; *b*, *k*, *s*, Auscultation, Case-taking, Diseases of Children, Laryngoscopic Demonstrations, Electro-therapeutics, Aural Surgery, Skin-Diseases, and Demonstrations of Bones and Ligaments, free; *g*, *n*, *r*, single, £3 3s.; *o*, *p*, *q*, single, £2 2s.; *k*, whole body, £6 6s.; half-body, £4 4s.; *o*, Morbid Histology, *t*, single, £1 1s.—Non-matriculated students, *a*, *c*, *h*, single, £4 4s.; two courses, £6 6s.; *b*, *k*, Operations; *o*, Morbid Histology; *t*, single, £2 2s.; *e*, single, £5 5s.; *i*, single, £3 3s.; two courses, £5 5s.; *q*, *r*, single, £4 4s.; *k*, Bandaging and Surgical Pathology, each; *s*, Laryngoscopic Demonstrations, Electro-therapeutics, Aural Surgery, Skin-Diseases, Demonstrations of Bones and Ligaments, single, £1 1s. H.P. matriculated students for full period required by Examining Boards in London, £31 10s.; non-matriculated students, either medical or surgical, 3 months, £6 6s.; 6 months, £10 10s.; 12 months, £15 15s.; full period, £21; both medical and surgical, 3 months, £10 10s.; 6 months, £15 15s.; 12 months, £21; full period, £31 10s. For a longer period, £5 5s. for each additional winter, and £3 3s. for each additional summer session.

The *Hospital* contains 150 beds; and the number will be increased, probably to nearly 200, before the end of the year. Matriculated students are admitted to the practice of the Royal Westminster Ophthalmic Hospital (36 beds).

Appointments.—A Medical Registrar and a Surgical Registrar, each with a salary of £40 a year, are appointed. Resident Medical, Surgical, and Obstetrical Officers, Assistant Medical and Surgical Officers, Clinical Clerks, Surgeons' Dressers, and a Pathological Assistant, are appointed from among the matriculated students, without additional fee.

Scholarships, Medals, and Prizes.—Two Entrance Scholarships, value £30 and £20, tenable for one year, awarded after examination in English, Latin, French or German, and Mathematics, with (optional) either Chemistry, Mechanics, German, or French.—The Llewellyn Scholarship of £25, open to all matriculated students who have just completed their second year. Examination at the end of the second summer session, in Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery.—The Golding Scholarship, £15 a year, tenable for two years, open to all matriculated students who have just completed their first year. Examination at the end of the first summer session, in Descriptive Anatomy, Physiology, Materia Medica, and Chemistry. The Governor's Clinical Gold Medal; Silver and Bronze Class Medals and Certificates of Honour in all the classes.

Further information may be had of the Librarian, who attends at the office of the School, Chandos Street, Charing Cross, between the hours of 10 and 4; or of the Dean, Mr. Francis Hird.

St. George's Hospital.—Perpetual Fee, £105,[*] or £115 10s. from those who have paid by instalments.—Aggregate Fees, £42 for first year, £42 for second year, and £10 10s. for each succeeding year [†] Lectures and Hospital Practice for Diploma in Dental Surgery, £45 (none of these fees include Practical Chemistry).—Separate Classes—*a*, *c*, *h*, *i*, single, £6 6s.; perpetual, £7 7s.; *e*, single, £6 6s., perpetual, £8 8s.; *f*, single, £4 4s.; *g*, *p*, single, £4 4s.; perpetual, £5 5s.; *n*, single, £5 5s.; perpetual, £6 6s.; *o*, single, £3 3s.; *q*, single, £3 3s.; perpetual, £4 4s. Practical Pharmacy, £3 3s. H.P.—Physicians', 6 months, £8 8s.; 3 years, £16 16s.; perpetual, £25 4s.; Surgeons', 6 months, £15 15s.; 3 years, £21; perpetual, £42.

The Hospital contains 350 beds, of which 200 are devoted to surgical, and 150 to medical, cases. Wards are especially set apart for the reception of cases of diseases of the eye, and diseases of women. In the women's wards, cribs are placed for the reception of children.

The *Library* and *Reading Room* and the *Museum* are open daily. Annual Subscription to Library, 10s. 6d.; or a compounding fee of £2 on entrance.

Clinical Instruction.—The pupils of the hospital are divided into classes under the superintendence of the physicians and surgeons in rotation, and are placed in charge of cases as Clerks and Dressers.

Hospital Appointments.—House-Physicians, House-Surgeons, an Assistant House-Physician, and an Assistant House-Surgeon, half-yearly, from among the perpetual pupils. The House-Physicians and House-Surgeons hold office for twelve months, and reside and board in the hospital free of expense. They must each deposit 50 guineas with the Treasurer of the hospital, which will be returned to them on the expiration of their term of office, if they have satisfactorily performed their respective duties.—An Obstetric Physician is appointed annually. He resides and boards in the hospital, and receives a yearly salary of £100.—A curator of the Pathological Museum, a Medical and a Surgical Registrar, are appointed annually from among the senior pupils, each with a salary of £50. Every student is required to assist the Curator for one month in performing *post mortem* examinations.—Two Assistant Medical Registrars are appointed every six months by competition. This office must be held before competing for that of House-Physician. An Assistant-Surgical Registrar is also appointed; this office cannot be held, alternately with that of Ophthalmic Assistant, before competing for the office of Assistant House-Surgeon.—A paid Demonstrator of Anatomy is appointed annually from among the senior students.

Exhibitions and Prizes.—The William Brown Exhibitions: (1) £100 *per annum* for two years to a perpetual pupil of the hospital under the age of 25, who has become entitled to be registered as a medical practitioner within two years previously; examination in July. 2. £40 *per annum* for three years to students of the third and fourth winter sessions.—Brackenbury Prizes in Medicine and in Surgery, each interest of £1,000 three per cent. consols, open to all pupils who have not completed the fourth year; examinations in May.—Sir Charles Clarke's Prize, interest of £200 annually, for good conduct; awarded at end of summer session.—The Thompson Silver Medal, and the Treasurer's Prize, at close of winter session, for proficiency in clinical examinations in three Medical and three Surgical cases.—Sir Benjamin Brodie's Clinical Prize in Surgery, for the best report (with notes) of not more than twelve surgical cases in the hospital during the preceding twelve months. Dr. Acland's Clinical Prize in Medicine, for the best record of not more than twelve cases of disease treated in the preceding twelve months. (The Brodie and Acland Prizes are open to fourth year's students. Reports must be sent in on or before May 1.)—The Henry Charles Johnson Memorial Prize, for Practical Anatomy.—General Proficiency Prizes, £10 10s., for students of each year: subjects for first year, Anatomy, Physiology, Chemistry, and Botany; for second year, Anatomy, Physiology, Chemistry, and Materia Medica; and for third year, Medicine, Surgery, Pathology, and Midwifery.

The Medical Society meets once a week at the Hospital during the Winter Session. All former and present pupils of St. George's Hospital are eligible as members.

Further information may be obtained from Dr. Barclay, the Treasurer of the School; from Dr. Wadham, the Dean of the School; and from the Resident Medical Officer of the Hospital.

Guy's Hospital.—First year, £40; second year, £40; third year, £20; each succeeding year, £10. Perpetual ticket, £105. Pupils attending practical courses are charged for the materials used. Single courses, *a*, *c*, *d*, *e*, *h*, *i*, *k*, *n*, *o*, each £5 5s.; *b*, *f*, *g*, *p*, *q*, *r*, Hygiene, and Natural Philosophy, each £4 4s.; H.P., either medical or surgical, 3 months, £10 10s.; 6 months, £15 15s.; perpetual, £26 5s.

The Hospital contains accommodation for 690 patients. There are ophthalmic wards with 50 beds, and obstetric wards with 26 beds.

Museums, etc.—The Museum of Human Anatomy contains the collection of anatomical models, made by Mr. Towne, besides about 2,000 preparations.—The Museum of Comparative Anatomy contains 2,000 specimens.—The Museum of Pathological Anatomy contains upwards of 5,000 specimens, with more than 2,000 drawings.—The Museum of Materia Medica contains specimens of the drugs in general use.—The Accommodation for class teaching has lately been much enlarged—The Library contains upwards of 5,000 volumes, and is open to the students daily from 10 A.M. to 4 P.M.

Clinical Instruction.—Two wards, containing together forty beds, are especially devoted to clinical teaching in Medicine. The Surgeons lecture upon selected cases during the winter, and the Assistant-Surgeons in the summer. The Obstetric Physicians, and the Ophthalmic, Dental, and Aural Surgeons, also give clinical and practical instruction. Special demonstrations and instruction are also given in Cutaneous Diseases. Every facility and encouragement is given for clinical study and reporting. All students have opportunities of becoming Ward Clerks to the Physicians and Surgeons.

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[*] Perpetual Pupils are entitled to admission to the practice of the Physicians and Surgeons, to all the Lectures (except Practical Chemistry), to compete for all Prizes and Exhibitions, to hold the appointments of House-Physician, House-Surgeon, and Assistant House-Surgeon, and to become Clinical Clerks for two periods of three months each, and Dressers for two similar periods. This payment must in all cases be made at the time of entry.

[†] By payment of these Fees, a Pupil is entitled to hold the offices of Clinical Clerk and Dresser, but not to become House-Physician or House-Surgeon, or to compete for the "William Brown Exhibition" and the "Clinical' Prizes.

Pupils' Appointments.—All these appointments are given according to the respective merits of the candidates, and without payment. Six House-Physicians are appointed by the Treasurer in each year. They hold office for six months each—two months as junior, four as senior. Six House-Surgeons and twelve Obstetric Residents every year. The former hold office each for four months, the latter for two months. The Senior House-Physicians, House-Surgeon, and Obstetric Resident, reside in the hospital, and are boarded free of expense.—The Clinical Assistants are selected from those students who have been medical ward-clerks.—The Dressers are selected from those who have been surgical ward-clerks. They hold office for six months each. During their weeks of special duty, they reside in the hospital, and board free of expense.—The Assistant-Surgeons' Dressers and Dressers in the Surgery are appointed for three months. (In order to meet the requirements of the Royal College of Surgeons regarding Practical Surgery, it has been arranged that all students who have not otherwise obtained certificates shall hold each of these appointments for three months.) The Dressers in the Eye-Wards hold office for four months each.—Dressers are appointed to the Dental and the Aural Surgeon repectively for two months.—The *Post Mortem* Clerks are selected from students who have completed their second year. They hold office for two months each.—Extern Obstetric Attendants are appointed monthly to attend the cases of Midwifery, in addition to the casual attendants.—The Reporters or Ward-Clerks are chosen from those students who have been diligent in their preliminary studies.—Clerks to the Assistant-Physicians and Assistant-Surgeons are also appointed. Two clerks are appointed to attend in the Electricity Room.—A special honorary certificate is given to every gentleman who has diligently performed the duties of the various offices.

Prizes.—Voluntary examinations are held as follows 1. At entrance, in Elementary Classics, Ancient and Modern History, and Mathematics. The first three of the successful candidates receive £25, £20, and £15. Examination on October 7. 2. At end of first summer session, in Anatomy, Physiology, Chemistry, Materia Medica, Botany, and Comparative Anatomy. Three prizes of £30, £25, and £10 10s. 3. At end of second summer session, in Anatomy and Physiology, Medicine, Surgery, Midwifery, Chemistry, and Therapeutics. Two prizes of £35 and £30. 4. At end of third summer session, in Medicine, Surgery, Midwifery, and Medical Jurisprudence. Two prizes of £40 and £35. Honorary certificates are given to those candidates who pass creditable examinations. Special certificates are given to gentlemen who have attended 100 cases of Midwifery.—Two Gold Medals given annually by the Treasurer to students who have completed the third and not exceeded the fourth year, for proficiency in Clinical Medicine and Clinical Surgery.

The Pupils' Physical Society meets on alternate Saturdays, at 7.30 P.M. A prize of £5 from the funds of the Society is given at the end of the session to the member who sends in the best essay and report of cases. Two other prizes of £5 and £10 are given to the members who are judged to have read the best essays before the Society. A fourth prize of £5 is given to the member who has most distinguished himself in the debates.

Further information may be obtained from Mr. Stocker, Secretary to the School.

KING'S COLLEGE AND HOSPITAL.—Aggregate Fee for Matriculated* Students, £105.† This payment covers two courses of Anatomy, Medicine and Surgery, and one course each of Physiology, Practical Physiology, Chemistry, Practical Chemistry, Obstetric Medicine, Botany, Forensic Medicine, Materia Medica, Pathological Anatomy, and Hospital attendance for three years from the beginning of the first Winter Session. The payment may be made by one sum of £100 on entrance; or £52 10s. on entrance, £42 at the beginning of the second winter session, and £10 10s. at the beginning of the third winter session. For each additional year, £10 10s. For right to attend perpetually on Hospital Practice and all the courses of lectures above mentioned, with Comparative Anatomy, £120 on entrance; or £60 on entrance, £40 at the beginning of the second winter session, and £30 at the beginning of the third winter session. Dental Surgery: For students who have attended the course of study required for a medical practitioner, £31 10s. For the Dental Diploma of the College of Surgeons, £95 1s. 6d. on entering, or £60 on entrance, and £40 at the beginning of the second winter season. Separate classes, *a*, *c*, *e*, single, £7 7s.; perpetual, £10 10s.; *b* (winter), single, £3 3s.; perpetual, £5 5s.; (summer), single, £2 2s.; perpetual, £3 3s.;* *f*, single, £4 4s.; perpetual, £7 7s.; *h*, *i*, single or perpetual, £7 7s.; *g*, *n*, *p*, *q*, single, £4 4s.; perpetual, £5 5s.; *r*, single, £3 3s.; perpetual, £4 4s. Analytical and experimental Chemistry (exclusive of materials), one month, £4 4s.; three months, £10 10s.; six months, £18 18s. Tutor's Class, £3 3s. H.P.—Three years' course, matriculated students, £31 10s.; not matriculated, £42; perpetual, matriculated students, £42.; not matriculated, £52 10s. Medical Practice—3 months, £6 6s.; 6 months, £10 10s.; 18 months, £15 15s.; perpetual £26 5s. Surgical practice—3 months, £10 13s.; 6 months, £15 15s.; 12 or 21 months, £21; perpetual, £31 10s.

The Hospital contains 170 beds in use.

The *Museums* of Anatomy, Materia Medica, Natural History, etc., are open daily from 10 till 4. The *Medical Library* is open daily.

Clinical Instruction is given in the wards and by lectures in the medical and surgical department; also in the Diseases of Women and Children, in Dental Surgery, in Diseases of the Eye, in Throat-Diseases, and in Skin-Diseases.—Demonstration and practical instruction in Morbid Anatomy are given in the *Post Mortem* Theatre. Special Instruction is given in Medical Chemistry and the Microscope by the Physicians.

The Medical Tutor assists, by instruction and examination, all students in the subjects of the first winter and summer sessions, as well as those preparing for the Preliminary Scientific Examination of the University of London.

Resident Medical Officers, Clinical Clerks and Dressers, are chosen by examination from matriculated students who are pupils at the hospital.

Scholarships and Prizes.—Two Warneford Scholarships, £25 *per annum* for three years, for the encouragement of previous education;† and one Warneford Scholarship of £25 *per annum*, for two years, for resident medical students. College scholarships given yearly to matriculated students—one of £40 for two years, open to students of the third and fourth year; one of £30 for one year, open to students of the second and third year; three for £20 for one year, open to students of the first year. The Daniell Scholarship, open to students who have worked in the laboratory six months, £20 *per annum* for two years. Sambrooke Registrarships, annual value £50, tenable for two years. Leathes' Prizes: Interest of £300, applied in purchase of a Bible and Prayer-Book, as annual prizes to two matriculated students. Warneford Prizes: £40 in medals and books, to two matriculated students. Class Prizes: Books of the value of £3, and certificates of honour, are awarded annually for proficiency in each of the several subjects taught in the classes. Two Medical Clinical Prizes, one of £3 for the winter session, and the other of £2 for the summer session; and two Surgical Clinical Prizes of the same value. Todd Medical Clinical Prize: Bronze Medal and Books to the value of £4 4s. Jelf Medal, to the candidate at the senior scholarship examination who is second in order of merit. Tanner Prize, value £10, for proficiency in Diseases of Women and Children, and in Obstetrics.

Associates of King's Colllege.—At the end of each winter session, the professors recommend to the Council the names of medical students to be elected associates.

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* Matriculated students are those who (with certain exceptions named in the *Calendar*) receive their entire medical education at King's College. They have the privilege of filling the offices of clinical clerks, dressers, dentists' assistant, physicians' assistant, physician accoucheur's assistant, assistant house-accoucheur, assistant house-physician, house-surgeon, and assistant house-surgeon, to the hospital; of becoming candidates for the Daniel, Inglis, Warneford, and Medical Scholarships, for the Sambrooke Registrarships, and for the Warneford, Leathes, Todd, Tanner, Jelf, and other endowed prizes. They are also admitted to the practice of the hospital at a reduced fee.

† Students are recommended to add £3:3 for Medical Tutor's fee; and £5:5 for those preparing for the Preliminary Scientific Examination of the University of London. Attendance on the Medical Tutor is compulsory on resident students during their first year. The Principal requests each student, on entering his second term, to contribute £1:1 towards the expenses of the restoration of the College Chapel.

* Each student attending the Practical Physiology Class must pay £1:1 each course for the use of a microscope, unless he have furnished himself with one approved by the Professor.

† Two Scholarships, of the value of £25 per annum each, to be held for three years, will be given in October 1874. Candidates must be matriculated students of the Medical Department, and perpetual pupils of the Hospital. Their first Winter Session must commence in October 1874. The examination will be in the following subjects. 1. Divinity: The Pentateuch, and the Books of Joshua and Judges: The Gospel of St. John and the Acts of the Apostles; The Prayer Book, its general history and structure. 2. English Language and Literature: Shakespeare, *Henry IV*, Part I; English History, from the Reformation to the death of Anne. 3. Latin: Virgil, *Georgics*, Book IV, and *Æneid*, Book VI. 4. Mathematics; Arithmetic; Algebra, as far as and including Quadratic Equations; Euclid, Books I, II (except props. 8, 9, 10), and III. 5. Greek: Xenophon's *Anabasis*, Book V. 6. French, *De la Grandeur et de la Décadence des Romains*, par Montesquieu. 7. German: Goethe's *Egmont* (Clarendon Press Series). 8. Chemistry: Miller's *Inorganic Chemistry* (Longman's Series of Text Books of Science). 9. Natural Philosophy: Deschanel's *Natural Philosophy*. 10. Botany: Bentley's *Manual of Botany*, 2nd edition, to page 210, with chapters on General Principles of Classification, and Diagnosis of Ranunculaceæ, Rosaceæ, Compositæ, Labiatæ, Scrofulariaceæ, and Liliaceæ. Subjects 1, 2, 3, 4, are compulsory; candidates may select one subject from 5, 6, and 7, and another either from 5. 6, and 7, or from 8, 9, and 10.

Residence.—Rooms are provided within the College for a limited number of matriculated students. The cost of the academical year varies from £50 to £60. Some of the professors, etc., receive pupils into their houses. Their is a dining hall in the College.

The Medical Society meets on Thursdays, at 8.30 P.M.

The Dean of the Medical Department attends daily, Saturday excepted, at King's College, from 11 A.M. to 1 P.M. for the purpose of seeing students and their friends. Any letter addressed to him on the subject of this department will receive early attention.

LONDON HOSPITAL.—Aggregate Fee, £94 10s. or two instalments of £47 5s. each, at the commencement of the first and second years. Perpetual fee for lectures or for hospital practice alone £50; for both lectures and hospital practice, with two years' Practical Anatomy, £100 payable in two instalments of £50 each, or two of £45 each, and one of £10. Composition fee for gentlemen who have spent their first year elsewhere, £73 10s., payable in two equal instalments. Students who have paid the general aggregate fee can become perpetual at any time by paying the additional £10 10s. Extra fees: Practical Chemistry (apparatus, etc.), £2 2s.; Library, £1 1s.; Practical Pharmacy, £4 4s, Separate classes: *a*, *n*, single, £4 4s.; perpetual, £6 6s.; *b*, *g*, *p*, *q*, *r*, single, £3 3s.; perpetual, £4 4s.; *c*, *d*, single, £5 5s.; perpetual, £8 8s.; *e*, single or perpetual, £7 7s.; *f*, single (students of school for apparatus), £2 2s., (others), £3 3s.; *h*, *o*, single, £5 5s.; perpetual, £6 6s.; *l*, and Diseases of Throat, single, £2 2s.; perpetual, £3 3s.; *m*, single, £2 2s.; *o*, single, £3 3s.; perpetual, £6 6s. H.P.—Medical: 6 months, £6 6s.; period required by Apothecaries' Hall, £12 12s.; unlimited, £21. Surgical: 6 months, including 3 months' dressership, £8 8s.; 12 months, including 6 months' dressership, £12 12s.; 18 months, including 12 months' dressership, £18 18s.; 3 years, including 12 months' dressership, £26 5s.; 3 years, including 2 years' dressership, £31 10s.; 12 months' dressership after the expiration of the above 3 years, £8 8s.

The London Hospital contains about 600 beds, thus allotted: Accidents and surgical cases, 324; medical cases, 179; diseases of women, 13; children under seven years of age, 36; ophthalmic cases, 12; outdoor wards, 36. The completion of the new wing, of which the foundation was laid in June last, will raise the number of beds to 800.

Museums, etc.—The Anatomical and Pathological Museum, the Materia Medica Museum, and the Library are open daily.

Clinical Instruction.—Two medical wards, containing together thirty beds, have been set apart for clinical teaching. The Clinical Professor will meet his class twice a week. Bedside instruction will also be given by the physicians not on special clinical duty. Students requiring signatures for medical practice must attend the Clinical Professor. In the out-patient department, the Physicians and Assistant-Physicians impart instruction at each visit. The surgeons make clinical observations on their cases, and a clinical lecture is given once a week.

Special Departments.—There are departments for instruction in Obstetric Medicine and Surgery, Vaccination, Diseases of the Eye and the Use of the Ophthalmoscope, Diseases of the Ear, Diseases of the Skin and of the Throat, Syphilis and Local Contagious Diseases, Mental Diseases, Dentistry, and Practical Pharmacy. Students desirous of obtaining a practical knowledge of Mental Diseases can attend, without additional fee, the practice of Dr. Millar, at the Bethnal House Asylum, every Wednesday, from 10 to 12. Dr. Hughlings Jackson intends to give a short course of lectures on Mental Diseases.

Appointments.—A Resident Medical Officer, qualified to practise Medicine, who receives £75, is appointed for twelve months. He is eligible for re-election, and then receives £100. A Junior Resident Medical Officer is appointed every six months. Four Medical Assistants, one for each Physician, are appointed every three months. Every student is expected to act as Clinical Clerk and Dresser in the outpatient department. A Resident Accoucheur is appointed for six months. All students who have attended a course of instruction in Midwifery can place their names on the list of Maternity Pupils, and have cases. Four House-Surgeons are elected, usually for six months. Any student may enter his name on the list as a Dresser. Two Dressers reside and board in the hospital every week. Two Clinical Assistants are appointed every three months for the medical and two for the surgical out-patients and patients in the special departments. They are eligible for re-election. Each receives £40 *per annum*. A Medical Registrar and a Surgical Registrar are appointed annually; the former receives 25, the latter 35, guineas. An Assistant-Dentist, *Post Mortem* Clerks, and two Prosectors of Anatomy, are also appointed. Full pupils, and those who, having commenced elsewhere, pay the general fee to the hospital and college, are eligible for all scholarships, prizes, and appointments. Students who have commenced elsewhere, but who, at or before the beginning of the second winter session, become pupils of the hospital and college by paying the composition fee, will be eligible for the Dresserships, for three months as House-Surgeon, and for the offices of Ward Clerk, *Post Mortem* Clerk, Maternity Pupil, Clinical Assistant, and Registrar. All the appointments are open to students without fee. The holders of resident appointments are provided with rooms and board.

Scholarships and Prizes.—Seven scholarships will be offered for competition. 1 and 2. Two Buxton scholarships, value £30 and £20, in October, after examination in the subjects of preliminary education.[*] These scholarships are open to full students of less than three months' standing. 3. A scholarship at the end of the winter session, value £20, to a first year's student: subject, Human Anatomy. 4. A scholarship, value £25, to a first or second year's student, at the end of the winter session: subjects, Anatomy, Physiology, and Chemistry. 5, 6, 7. Hospital scholarships, value each £20, for proficiency and zeal in Clinical Medicine, Surgery, and Obstetrics; also a second prize, value £5, with certificate, for attendance on the largest number of Obstetric cases. The Duckworth Nelson Prize, value £10, at the end of the winter session, 1874-75, open to all students who have not completed their education: Subjects, Practical Medicine and Surgery. Money prizes to the value of £60 *per annum* to the most meritorious of the dressers in the out-patient rooms. Special certificates to those gentlemen who have faithfully performed their duties in the hospital, and to those who have distinguished themselves at the examinations.

The Medical Society meets for the reading and discussion of papers at 7.30 P.M. on alternate Wednesdays during the winter session.

Information may be obtained from Mr. Waren Tay, Vice-Dean; from any Member of the Hospital Staff; or from the Lecturers at the College.

ST. MARY'S HOSPITAL.—Aggregate Fee, £89 5s. in instalments, or £84 in one sum.—Fee for all lectures required for ordinary examinations, £52 10s.; for hospital practice, £36 15s.; for lectures and hospital practice, £89 5s.; *a*, *b*, *p*, *q*, single, £3 3s.; perpetual, £4 4s.; *c*, single, £6 6s.; perpetual, £8 8s.; *d*, £1 15s. first and second winter sessions; *e*, single, £5 5s.; perpetual, £7 7s.; *f* (organic), *o*, single, £3 3s.; *g*, *h*, *i*, *n*, single, £4 4s.; perpetual, £6 6s.; *l*, *m*, and Aural Surgery, single, £2 2s.; unlimited attendance on hospital practice and all lectures, £105 in instalments, or £99 15s. in one sum. Students who have kept the two years course at the University of Cambridge are admitted as perpetual pupils on payment of £57 15s., and those who have kept a portion of the course elsewhere at a proportionate reduction.—Separate classes—H. P.—Medical: 3 months, £5 5s.; 6 months, £7 7s.; 12 months, £12 12s.; 18 months, £15 15s.; unlimited, £21. Surgical: 3 months, £6 6s.; 6 months, £9 9s.; 12 months, or time required by College of Surgeons, £21; unlimited, £31. Practical Pharmacy: 3 months, £3 3s.; 6 months, £6 6s.; 12 months, £10 10.—Vaccination, £1 1s.—Library fee, £1 1s.

The Hospital contains 170 beds—68 medical and 102 surgical.

The *Reading Room* and *Library* are open daily. A fee of £1 1s. (perpetual) is paid on entrance by each student.—The *Museum* is open daily to students. It contains above 3,000 specimens of healthy and morbid anatomy. There are also a Materia Medica Department, and a collection of specimens illustrative of Comparative Anatomy.

Clinical Lectures twice a week by the Physicians and Surgeons. The students are divided into three classes, each committed to the charge of a Physician and Surgeon for a definite period. The attendance of the students is noted at each visit. Special courses are given on Ophthalmic, Aural, and Dental Surgery; also clinical demonstrations on Diseases of the Skin and of the Throat. The students are carefully trained to the use of the Microscope. A Histological Room is open daily.

The *Medical Tutor* assists the students daily in the wards of the hospital, and gives elementary practical instruction on medical and surgical cases. He also examines practically students who are preparing for their final examinations.

Hospital Appointments are open to the pupils without additional fee. Three Resident Medical Officers are appointed for twelve months, and an Obstetric Officer for six months; all live free of expense in the hospital.—A Demonstrator of Anatomy is appointed, with a salary of £50 a year; and a Medical Tutor, with a salary of £100 a year.—A Resident Registrar is appointed, with a salary of £100 a year; he holds office for two years, and may be re-elected.—All general students must act as clinical clerks and dressers for six months after passing the Primary Examination. Students of the third year are appointed to assist the Physicians and Surgeons in charge of the out-patients for three months each.

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[*] The subjects will be:—1. The English Language, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including Simple Equations. 4. Geometry—first Two Books of Euclid. 5. Latin—Cæsar, *De Bello Gallico*, Book II. 6. One of the following subjects at the discretion of the candidate: (*a*) Greek—Xenophon's *Anabasis*, Book I; (*b*) French—X. B. Saintine's *Picciola*; (*c*) German—Schiller's *Wilhelm Tell*; (*d*) Natural Philosophy—Mechanics, Hydrostatics, Pneumatics.

Scholarships and Prizes.—Three Scholarships in Natural Science, tenable for three years; value £60 the first year, £40 the second year, and £20 the third year. An Exhibition of £20 for one year to the second candidate in order of merit. A Scholarship in Natural Science, tenable for three years; value £30 the first year, £20 the second year, and £10 the third year. A Scholarship in Classics and Mathematics, of the same value as the preceding.* An Exhibition in Classics and Mathematics to the second candidate. The successful candidates must enter as Perpetual pupils of the Hospital.—A prize of £4 4s. in Anatomy and Histology, and three of £2 2s. each in Chemistry, Practical (inorganic) Chemistry, and Materia Medica and Botany, to first year's students.—A Scholarship in Anatomy, value £20, for one year; a prize of £4 4s. for Anatomy and General Physiology; and prizes of £2 2s. for Midwifery and Medical Jurisprudence; to students of the second year.—A Scholarship in Pathological Anatomy, value £20, tenable for one year, and prizes of £3 3s. each in Medicine and in Surgery, and one of £2 2s. in Comparative Anatomy, for third year's students; £3 3s. each to the Clinical Clerks and to the In-patient Dresser who shall have discharged their duties in the most satisfactory manner.—Two Prosectors are appointed annually, who each receive a certificate and £5.

The *Medical Society* meets on alternate Wednesday evenings during the Winter Session, at 8 P.M.

Further information may be obtained from Dr. Cheadle, Dean of the School; or from Mr. Knott, the Medical Tutor, at the Hospital.

MIDDLESEX HOSPITAL.—Aggregate Fee, £90 in one sum;† or in instalments of £35 at the beginning of the first and second sessions; £20 at the beginning of the third session; and £10 for each additional year, or separate fees for the hospital practice or lectures attended. Members of the University of Oxford, Cambridge, or Durham, who have completed one year of medical study at the University, are admitted on payment of £55 in one sum, or in two instalments of £35 and £20 at the commencement of the first and second winter sessions; for each additional year £10.—Separate Classes—*a*, *d*, *e*, *h*, *i*, single, £6 6s.; perpetual, £8 8s.; *b*, single, £4 4s.; *f*, *r*, *s*, single, £3 3s.; *g*, *n*, *p*, *q*, single, £4 4s.; perpetual, £5 5s.; *k*, single, £6 6s.; *i*, without dissection, single, £8 8s.; perpetual, £12 12s; with dissection, single, £10 10s.; perpetual, £14 14s.—H. P.—Unlimited, £26 5s.; or in instalments of £10 10s. each at commencement of first and second years, and £5 5s. for each subsequent year. Medical or surgical practice, separately, unlimited, £15 15s.; one year, £8 8s.; six months, both, £7 7s.; either, £5 5s. Registration fee (occasional students), £1 6s.; Vaccination, £1 1s.; Dental practice (occasional students), £5 5s.; Pharmacy, without dispensing, 3 months, £4 4s.; with dispensing, 6 months, £5 5s.; 12 months, £8 8s.

The Middlesex Hospital contains upwards of 300 beds, of which 185 are devoted to surgical and 120 to medical cases. There are 33 beds for cases of cancer; also wards for cases of uterine disease and of syphilis, and beds for cases of diseases of the eye.

The *Museum* is open to students daily from 9 to 5. It contains above 5,000 specimens.—The *Library* and *Reading Room* are open to all general students. Occasional students may use the Library on payment of £1 1s.

Clinical Lectures are delivered regularly by the Physicians and Surgeons, and by the Physician-Accoucheur and the Ophthalmic Surgeon.—Special instruction in Diseases of the Skin, and of the Larynx and Ear, is given.

The *College Tutors* assist all general students of the hospital, especially those who are preparing for examination.

Appointments, etc.—Two House-Surgeons are appointed after competitive examination, in April and October. Candidates must be 21 years of age, and must have obtained certificates of proficiency as in-patient dressers. The Junior House-Surgeon succeeds to the office of Senior House-Surgeon only if he have performed his duties satisfactorily. Each House-Surgeon pays a fee of £21; if he have not been a surgical pupil of the hospital, he pays £31 10s. Three Resident Physicians'-Assistants are appointed from time to time for six months. They must have a legal qualification. Each Resident Physician's-Assistant pays £10 10s. on appointment; and, if he have been a medical pupil of the hospital for a limited time, a sum sufficient to make him a perpetual student of the medical practice. A Resident Obstetric Assistant is appointed for six months. He pays £10 10s. Clinical Clerks and Dressers are appointed for six months. The appointments are so arranged that every student may take both a clerkship and a dressership at some period. Each student must be an out-patient clerk and out-patient dresser for six months respectively before being eligible to an in-patient clerkship or dressership.

Scholarships and Prizes.—Two Broderip Scholarships, value £30 and £20, tenable for two years, to students who have completed the third year, for reports or comments on selected medical and surgical cases.—Two Entrance Scholarships, value £25 and £20, tenable for two years,* open to all gentlemen commencing their medical studies at the hospital in October, 1874—The John Murray Scholarship and Gold Medal, founded in connection with the University of Aberdeen, will be awarded every third year to a student of the Middlesex Hospital. The first award to a student of the hospital will be made in 1877; and students commencing their curriculum in the hospital in October 1874 will be eligible to compete.—The Governors' Prize, value £21, to the student who, at the end of the third winter session, shall have been most diligent in the wards, and have attained the highest proficiency in the periodical examinations.—A Clinical Prize of £10 10s. to the candidate who stand third in the competition for the Broderip Scholarships.—Class Prizes are given in each subject.

The Students' Medical Society meets in the Board Room of the Hospital once a fortnight during the winter session.

Information may be obtained from Dr. Robert King, the Dean; from Dr. Greenhow, Treasurer of the College; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

ST. THOMAS'S HOSPITAL.—Aggregate fee (giving unlimited admission), £105 in one sum; or £40 each for the first and second years; £20 for the third; and £10 for each succeeding year. For students entering in their second year of study, £40; third year, £25; fourth year £15; each succeeding year, £10. Those entering in their third year pay £30; next year, £15; each succeeding year £10. Separate classes, *a*, *c*, *d*, *e*, *h*, *i*, single, £5 5s.; perpetual, £8 8s.; *n*, single, £4 4s.; perpetual, £6 6s.; *g*, *o*, *p*, *q*, *r*, and Physics, single, £3 3s.; perpetual, £4 4s.; *l*, *m*, *s*, single, £2 2s.; perpetual, £3 3s.; *b*, *f*, *k*, single, £3 3s. Extra charges for articles, etc.—Practical Chemistry, and Practical Physiology, each £1 11s. 6d.; Morbid Anatomy and Practical Pathology, 10s. 6d. Students attending the course of Practical Surgery must pay for the parts on which they operate. Library Fee, £1 1s. H.P.—Medical or Surgical, three months, £5 5s.; six months, £9 9s.; nine months, £12 12s.; twelve months, £15 15s.; perpetual, £26 5s.—Medical and Surgical combined: three months, £8 8s.; six months, £14 14s.; nine months, £19 19s.; twelve months, £25 4s.; perpetual, £42. Separate attendance on Diseases of Women, Ophthalmic Surgery, and Dental Surgery, three months, each, £2 2s.

The Hospital contains 569 beds, distributed as follows: Medical, 180; Surgical, 230; Ophthalmic, 20; Diseases of Women, 20; Venereal (women), 30; Infectious Diseases, 59; Children under six years of age, 30.

Museum, etc.—Students have access to the Library and to the Museums of Human Anatomy, of Comparative Anatomy, of Materia Medica, and of Chemistry and Mineralogy, and to the Laboratories of Practical Physiology, and Practical Chemistry.

Prizes.—The William Tite Scholarship, consisting of the interest of £1,000 consols awarded every third year, and tenable for three years; and College Prizes for each year's students, of £20, £15, and £10 each winter, and £15, £10, and £5 each summer.—The Cheselden Medal, annually, for Surgery, and Surgical Anatomy.—The Treasurer's Gold Medal, annually, for general proficiency and good conduct.—The Grainger Testimonial Prize, value £20, biennially, to third or fourth year's students, for a Physiological Essay. The Solly Medal, with a Prize of £10 10s., every two years, for Reports of Surgical Cases.

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* Subjects: Virgil, *Eclogues*; Cicero, *Pro Cluentio*; Xenophon, *Memorabilia*, Book IV; First Four Books of Euclid, with Algebra as far as Quadratic Equations.

† This fee admits to the Library, to one course of Practical Chemistry and two courses of Dissections, to all the lectures, and to the instruction of the tutor: it includes also all charges for Clinical Clerkships and Dresserships.

* The Examination will take place on September 28th and following days, and the result will be declared on October 12th. The following are the subjects for Examination. *Latin.*—Passages for translation into English, short passages for translation from English into Latin, and questions in Grammar and Ancient Geography.—*Greek.*–Easy passages for translation into English; questions in Grammar and Ancient Geography.—*French or German.*—Passages for translation into English, short passages for translation from English into French or German, and questions in Grammar.—*Mathematics.*—Arithmetic, Algebra up to and including Quadratic Equations, and Euclid, books i, ii, iii.—*Natural Philosophy.*—*Chemistry.*—*Botany.*—*Zoology.*—Huxley's Classification of the Animal Kingdom; Rudiments of Animal Physiology. Candidates will be examined in any three, and not more, of the above subjects which they may select; but only one Modern Language and two out of the last three subjects are permitted.

Appointments.—All students have the opportunity afforded them of being engaged in the performance of practical duties in connection with the Medical, Surgical, Obstetrical, Ophthalmic, and Pathological Departments of the Hospital. Obstetric Clerks are from time to time appointed. Each holds office for a fortnight, and Certificates of Honour are awarded to those gentlemen who have satisfactorily attended fifty Maternity cases. Two or more gentlemen are selected from students who have completed their second Winter session, to act as Assistants in the Dissecting Room. Two House-Physicians, two House-Surgeons, and a Resident-Accoucheur, are selected according to merit from gentlemen who have obtained their diplomas, and are provided with rooms and commons. Two Hospital Registrars each year, preference being given to gentlemen who have completed their studies in the school. Each Registrar, on completing his Annual Report to the satisfaction of the Physicians or Surgeons, receives £40.

Further information may be obtained from Mr. R. G. Whitfield, the Medical Secretary, at the Hospital.

UNIVERSITY COLLEGE AND HOSPITAL.—Aggregate Fees, £105 15s.; or first winter session, £36 5s.; first summer session, £11 11s.; second winter session, £32 1s.; second summer session, £7 7s.; third winter session, £7; third summer session, £7 7s.; fourth winter session, £4 4s. Separate classes: *a*, *b*, *e*, single, £7 7s.; perpetual, £9 9s.; *c* with *d*, single, £9 9s.; perpetual to Lectures, with three years' Practical Anatomy, £11 11s.; Practical Anatomy after the third year, every winter session, £1 1s.; Practical Anatomy without Lectures for three summer months, £3 3s.; *f*, elementary and session courses (each), single, £4 4s.; perpetual, £7 7s.; summer matriculation course, single, £4 4s.; *g*, *n*, *o*, single, £4 4s.; perpetual, £6 6s.; *h*, single, £6 6s.; perpetual, £9 9s.; *i*, single, £5 5s.; perpetual, £6 6s.; *k*, single, £4 4s.; *l*, *t*, single, £1 1s.; *m*, *s*, single, £2 2s.; *p*, *q*, single, £3 3s.; perpetual, £4 4s.; *r*, Comparative Anatomy, £4 4s.; Zoology, £4 4s.; perpetual to both, £9 9s.—H.P—Perpetual, £27; one year, £10; six months, £7. Practical Pharmacy, six months, £5 5s.; three months, £3 3s.

Libraries and Museums.—The General and Medical Libraries, the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica and Chemistry, of Geology, and of Natural Philosophy, are open daily. There are also a Chemical and a Physiological Laboratory, where instruction is given under the superintendence of the Professors of Chemistry and of Practical Physiology.

Clinical Instruction is given by the physicians and surgeons in the wards and in the out-patient department, and by lectures and examinations. Dr. Wilson Fox, the Holme Professor of Clinical Medicine, delivers Clinical Lectures, and trains the pupils in the practical study of disease. Dr. Roberts, Assistant-Teacher of Clinical Medicine, gives special instructions in Physical Diagnosis. Lectures are given once a week, by Mr. Erichsen, the Holme Professor of Clinical Surgery; once a fortnight or oftener by Mr. Marshall and Sir Henry Thomson. In the summer, Mr. Berkeley Hill and Mr. C. Heath will instruct first year's students in the observation of patients. Clinical Lectures on Midwifery and the Diseases of Women are delivered once a fortnight; also on Ophthalmic Surgery, and on Diseases of the Skin. Arrangements are made for practical instruction in Vaccination.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

Offices.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physician's Clerks, Surgeons' Dressers, Ophthalmic Surgeons' Assistants, and Ward-Clerks are selected from among the pupils without additional fees. The Physicians' Assistants, the Obstetric Assistant, and the House-Surgeons reside in the Hospital, paying for their board.

Scholarships, etc.—Three Entrance Exhibitions, value £30, £20, and £10 *per annum*, tenable for two years, to gentlemen who are about to commence their first winter's attendance.*—The Atkinson-Morley Surgical Scholarship, £45, tenable for three years, for proficiency in Surgery.—The Sharpey Physiological Scholarship, annual value about £70.—The Filliter Exhibition of £30, annually in July, for Pathological Anatomy.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, with Certificates of Honour, at the end of each session.—The Liston Gold Medal, with Certificates of Honour, at the end of the session, for reports and observations on the Surgical Cases in the Hospital.—The Alexander Bruce Gold Medal, for proficiency in Pathology and Surgery.—The Cluff Memorial Prize, every second year, for Anatomy Physiology, and Chemistry.—Gold and Silver Medals or other Prizes, as well as Certificates of Honour, after competitive examinations in the classes.—Prizes to the value of £10 in the class of Hygiene.

Residence of Students.—Several gentlemen connected with the College receive students to reside with them; and in the office of the College there is kept a register of persons who receive boarders.

The Medical Society meets to read and discuss papers on alternate Wednesdays throughout the session, at 7 P.M.

Information respecting the College may be obtained from the Dean, Dr. Bastian; the Vice-Dean, Mr. Marshall; or the Secretary, Mr. J. Robson.

WESTMINSTER HOSPITAL.—Aggregate Fee, £80 at entrance; or two instalments of £42 and £40 (or £45 per perpetual ticket) at commencement of first and second years; or four instalments, viz., first winter, £29 8s.; first summer, £14 14s.; second winter, £26 5s.; second summer, £13 13s.* Gentlemen who do not enter as perpetual students before the end of their second year will be charged a fee of £4 4s. for every session after the completion of their third year, in addition to any special fees which may be payable. Members of the Universities of Oxford or Cambridge, who have completed one year of medical study at the University, will be admitted to the Hospital Practice and Lectures (except Practical Chemistry and Comparative Anatomy) required by those Universities, and by the Colleges of Physicians and Surgeons, on payment of £51 10s. in one sum.—Separate classes—*a*, *e*, *h*, single, £5 5s.; two courses, £7 7s.; *i*, *k*, single, £5 5s.; two courses of either, or one of *i* and one of *k*, £7 7s.; *b*, single, £4 4s.; *c*, single, £7 7s.; two courses £10 10s.; *d*, (dissections only) three months, £2 2s.; six months, £3 3s.; each subsequent session, £2 2s.; *f*, single, £3 3s.; *g*, *o*, *p*, *q*, single, £3 3s.; two courses, £4 4s.; *k* (minor surgery), *k* (operative surgery), *s*, Diseases of the Ear, and Natural Philosophy, single, £1 1s.; *n*, single, £4 4s.; two courses, £5 5s.; *r*, single, £2 2s.; two courses, £3 3s.—Vaccination, £1 1s.—Practical Pharmacy, three months, £3 3s.; six months, £5 5s.—H.P.—Medical and Surgical, three months, £7 7s.; six months, £12 12s.; twelve months, £18 18s.; eighteen months, £23 12s. 6d.; perpetual, £31 10s.—Medical or Surgical, three months, £5 5s.; six months, £8 8s.; twelve months, £12 12s.; eighteen months, £15 15s.; perpetual, £21. Students can attend, without additional fee, the practice of the Royal Westminster Ophthalmic Hospital, and of the National Hospital for Paralysis.

The Hospital contains 191 beds.

Museums, etc.—The Anatomical Museum is constantly open to the Students. There are also a Pathological Museum and a Materia Medica Museum.—The Reading Room is open daily.

Instruction.—There are separate departments for Diseases of the Eye, Ear, Skin, and Teeth, and for Diseases of Women. A course of instruction in Electrical Therapeutics will be given to senior students, by Dr. Anstie. Dr. Sturges gives instruction in Auscultation.

Appointments.—All these are made without fee.—A Medical and a Surgical Registrar are appointed annually, each with a salary of £40. A House-Physician, a House-Surgeon, and a Resident Obstetric Assistant are appointed by competition, and are provided with board and lodging free of expense—An Assistant House-Surgeon is appointed from among the senior students. He is provided with commons at the hospital table.—A Physician's Assistant, Surgeon's Assistant, and Ophthalmic Assistant are appointed from students of the fourth year.—Clinical Clerks and Dressers for in-patients are appointed for six months from general students of the hospital who have passed their first Examination.—Out-patients' Clerkships and Dresserships are conferred on all students in rotation for three months.

Scholarships and Prizes.—Two Entrance Scholarships, value £20 and £10, tenable for two years.†—Exhibition in Anatomy and Elementary Physiology, value £10 10s., tenable for one year.—A prize of £2 2s. by Mr. Davy, to the first year's student who is most regular and diligent in the Dissecting Room.—Scholarship in Anatomy and Physiology, value £21, to student of second year (to be styled Assistant Demonstrator).—Prize by Dr. Allchin, in class of Histology; by Dr. Potter, in class of Midwifery.—At end of third year, prizes of £5 each (or books or instruments) in Clinical Medicine and Pathology, and in Clinical Surgery and Pathology.—Chadwick Prize for General Proficiency, £21 to the most meritorious student or students of any year not exceeding the fifth.—Certificates of Honour in each Class.

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* The subjects of examination are the following. Latin and Greek—Translation into English of passages from Cæsar and Xenophon; Translation of short English sentences into Latin. French or German—Translation into English of passages from Bossuet's *Discours sur l'Histoire Universelle*, or of passages from Schiller's *Geschichte des dreissigjährigen Krieges.* Mathematics and Natural Philosophy—the subjects required for the Matriculation Examination of the University of London, with the addition of Acoustics (Nature of Sound). The next examination will take place on September 24th and 25th, 1874.

* The following additional classes are free to general students. Psychological Medicine (in connection with the Forensic Medicine course), Ophthalmic Surgery, Minor Surgery and Bandaging, Diseases of the Skin, Aural Surgery, Dental Surgery, Natural Philosophy, and Comparative Anatomy. The fees for these courses must, however, be paid, should a special certificate be required.

† The next Examination will be held at the Hospital on September 25th and 26th. The following are the subjects:—*Latin*—Virgil; *Georgics*, Book IV; and *Æneid*, Book VI. The paper will contain passages for translation, questions in Grammar, and easy English sentences for translation into Latin. *French*, *German*, or *Greek*—Xenophon, *Anabasis*, Book V. *Arithmetic*—including Vulgar and Decimal Fractions, and extraction of Square Root. *Algebra*—Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations. *Geometry*—First four Books of Euclid, or the subjects thereof. Notice of intention to compete, with a statement of the second language in which the Candidate wishes to be examined, and a certificate of moral character, must be sent to the Dean not later than September 23rd.

Communications respecting the Medical School should be addressed to Mr. Cowell, the Dean of the School, from whom all particulars may be obtained. Information may also be obtained from any of the Lecturers, or from the Secretary at the Hospital.

NOTES CONCERNING THE PROVINCIAL AND SCOTCH HOSPITALS AND MEDICAL SCHOOLS.

University of Oxford.—The instruction in Natural Science is carried on at the Museum, where there is practical instruction in Physics, Chemistry, and Anatomy and Physiology, together with courses of lectures by the several professors; viz.—Regius Professor of Medicine and Professor of Clinical Medicine—H. W. Acland, M.D., LL.D., F.R.S.; Geometry—H. J. S. Smith, M.A., F.R.S.; Natural Philosophy—Rev. B. Price, M.A., F.R.S.; Experimental Philosophy, R. B. Clifton, M.A., F.R.S.; Chemistry—W. Odling, M.B, F.R.S.; Physiology—G. Rolleston, M.D., F.R.S.; Zoology—J. O. Westwood, M.A., F.L.S.; Botany—M. A. Lawson, M.A.; Mineralogy—M. H. N. Story-Maskelyne, M.A., F.R.S.; Lee's Reader in Anatomy—J. B. Thompson, B.A.

Large collections illustrate the several subjects; there is a pathological series, including the collection of Schroeder Van der Kolk, in the medical department, and a medical laboratory. The Radcliffe Library, containing nearly 20,000 scientific volumes, is open to all students daily from ten to four, and on certain evenings during term. There are also lectures and practical instruction in Botany at the Botanical Gardens; and clinical instruction at the Infirmary.

University of Cambridge.—The following Courses of Lectures will be delivered during the ensuing Academical Year. *Michaelmas Term*, 1874.—Physics: Heat and Elasticity, by Professor Maxwell, M., Tu., W., Th., F., 12.15. Electricity and Magnetism, by Mr. Trotter (at Trinity College), M., W., F., 11 A.M: Chemistry, General Course, by Professor Liveing, M., W., F., 12: Spectroscopic Analysis, by Professor Liveing, M., W., F., 1: Qualitative Analysis, by Professor Liveing and the Demonstrator: Elementary Organic Chemistry, by Mr. Main (at St. John's College), Tu., Th., and S., 12: Volumetric Analysis, by Mr. Apjohn (at Caius Laboratory), Tu., F., 2. Anatomy and Physiology: Zoology and Comparative Anatomy, by Professor Newton, M., W., F., 1: Practical Course of Comparative Anatomy, by the Demonstrator of Comparative Anatomy, daily, Sundays excepted: Catechetical on Comparative Anatomy and Physiology, by Dr. Drosier (at Caius College), M., Th., 12: Anatomy and Physiology, by Professor Humphry, Tu., Th., S., 1: Practical Anatomy, by Professor Humphry, and Demonstrator, daily, 9 A.M: Practical Physiology and Histology, by Dr. M. Foster (Trinity Prælector), Tu., Th., S., 10: Physiology, by Dr. Bradbury (at Downing College), M., W., and F., 9 A.M. Botany: Vegetable Morphology, by Mr. Hicks (at Sidney College), Tu., Th., S., 11. Materia Medica and General Therapeutics, by Dr. Fisher (Downing Professor of Medicine), or his deputy (Dr. Latham), Tu., Th., S., 9 A.M. Pathology, by Dr. Bradbury (Linacre Lecturer), Tu., 10 A.M. Clinical Medicine, by Dr. Paget (Regius Professor), M., W., Th., and F., 10 A.M. Clinical Surgery, by Mr. Lestourgeon, Tu., Th., 11.

Lent Term, 1875.—Physics: Electricity and Magnetism, by Professor Maxwell, M., W., F., 12.15: Electricity and Magnetism (continued), by Mr. Trotter, Tu., Th., S., 11: Electricity and Magnetism (Elementary Course), by Mr. Trotter (at Trinity College), M., W., and F., 11. Chemistry: General Course, continued, by Professor Liveing, M., W., F., 12: Quantitative Analysis, by Professor Liveing, M., W., F., 1: Qualitative Analysis, by the Demonstrator of Chemistry: Elementary Course, by Mr. Main (at St. John's Laboratory), Tu., Th., S., 12. Botany: Vegetable Histology and Physiology, by Mr. Hicks (at Sidney College), Tu., Th., S., 11 Anatomy and Physiology: Zoology and Comparative Anatomy, by Professor Newton, M., W., F., 1: Practical Comparative Anatomy, by the Demonstrator, daily, Sundays excepted: Comparative Anatomy and Physiology, by Dr. Drosier (at Caius College, Tu., Th., S., 12; Anatomy and Physiology, by Professor Humphry, Tu., Th., S., 1: Practical Anatomy, by Professor Humphry, and the Demonstrator, 9 A.M. daily until Jan. 27, afterwards Tu., Th., and S: Practical Physiology and Histology, by Dr. M. Foster (Trinity Prælector), continued, Tu., Th., S., 10 A.M: Physiology, by Dr. Bradbury (at Downing College), M., W., F., 9 A.M. Principles and Practice of Medicine, by Dr. Paget (Regius Professor), on M., W., F., 9 A.M. Pathology, by Dr. Bradbury (Linacre Lecturer), Tu., 10 A.M. Clinical Medicine, by Dr. Latham, M., W., T., F., 10 A.M. Clinical Surgery, by Mr. Carver, Tu., Th., F., S., 11.

Easter Term, 1875.—Physics: Electro-magnetism, by Professor Maxwell, M., W., F., 12: Electricity and Magnetism (continued), by Mr. Trotter, Tu., Th., S., 11: Heat (Elementary), by Mr. Trotter (at Trinity College), on M., W., F., 11. Chemistry: Some special department, by Professor Liveing, M., W., F., 12: Quantitative Analysis, by Professor Liveing, M., W., F., 3: Elementary Inorganic Chemistry, by the Demonstrator of Chemistry, Tu., Th., S., 3: Elementary Course (concluded), by Mr. Main, Tu., Th., S., 12: Organic Analysis, by Mr. Apjohn (at Caius Laboratory), Tu., F., 12. Anatomy and Physiology: Practical Comparative Anatomy, by the Demonstrator of Comparative Anatomy, daily, Sundays excepted: Comparative Anatomy and Physiology (continuation of course), by Dr. Drosier (at Caius College), Tu., Th., S., 12: Practical Elementary Biology, by Dr. M. Foster (Trinity Prælector), Tu., Th., S., 10 A.M. Botany, by Professor Babington; M., Tu., Th., F., 1. Materia Medica and General Therapeutics, by Dr. Fisher (Downing Professor), or his deputy, Dr. Latham; Tu., Th., S., 9 A.M. Principles and Practice of Medicine, by Dr. Paget (Regius Professor), M., W., F., 9 A.M. Pathology, by Dr. Bradbury (Linacre Lecturer), Tu., 10 A.M. Clinical Medicine, by Dr. Bradbury, M., W., Th., F., 10 A.M. Clinical Surgery, by Dr. Humphry; Tu., Th., F., S., 11.

Long Vacation.—Practical Chemistry in the University Laboratory; Course of Instruction in Practical Anatomy; Course of Practical Histology; Clinical Instruction at the Hospital.

The Chemical Laboratory of the University will be open daily for the use of the students. The Demonstrator attends daily to give instruction alternately morning and afternoon.

The Dissecting Rooms and Museums of Anatomy are open daily during the vacations as well as in the terms, and the Professor and Demonstrator of Anatomy are in attendance to assist and direct the students.

The Museum of Materia Medica at Downing College is open daily to all Medical Students.

Students entered to the practice of the Hospital are admitted to the Clinical Lectures without additional Fee.

Opportunities for Clinical Instruction in mental diseases will be afforded at the County Asylum, Fulbourn, by Dr. Bacon, during the Michaelmas and Lent Terms. Notice will be given of the days and hours.

Commencing Students of Medicine must be registered according to the Regulations of the General Council of Medical Education and Registration.

Forms for registration, abstracts of regulations, schedules, and other papers may be obtained from the attendant at the Anatomical Schools, Pembroke Street.

Attendance on the Lectures on Chemistry, Botany, Materia Medica, Anatomy, Physiology, and Dissections, is recognised by the Royal College of Surgeons, England. Hence all the Courses required for admission to the first professional Examination at that College, as well as for admission to the second Examination for M.B., may be attended in Cambridge.

Birmingham.—Queen's College.—Aggregate Fee for all lectures required, £52 10s., payable in two equal instalments at entrance and at commencement of second year.—Separate Classes, *a*, *c*, *h*, *i*, single, £5 5s.; perpetual, £8 8s.; *d*, *e*, *n*, single, £4 4s.; perpetual, £6 6s.; *f*, *g*, *p*, *q*, single, £3 3s.; perpetual, £5 5s.; *l*, *m*, *r* (these courses are not included in composition fee), single, £3 3s.; two courses, £5 5s.—Caution money, £2.—H.P.—*General and Queen's Hospital* (amalgamated for purposes of instruction): Medical and Surgical Practice, 4 years, £31 10s. (or in two equal sums at entrance and at commencement of second year): one year, £15 15s.; six months, £10 10s.; Midwifery and Diseases of Women, £2 2s. (optional); Dental Fee, £1 1s. (optional). Students must attend six months alternately at each Hospital, except those who enter for six months only.

The Museums of Anatomy and Pathology, and the Library, are open to the students.

Clinical Instruction.—Clinical Lectures and lectures in special departments are given at both Hospitals, which have a total of upwards of 400 beds. Special Instruction is given in the use of the microscope, laryngoscope, and ophthalmoscope, also in case-taking and prescribing.

Appointments.—General Hospital: Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable six months; all after examination, and with board and lodging. *Queen's Hospital:* Resident Obstetric Assistant, tenable six months.

Prizes.—The Sands Cox Prize, value £20 annually, to students who have completed their curriculum, after examination in Medicine, Surgery, and Midwifery.—Warden's Prize, £5 5s. to the most proficient student of the first year.—The Percy Prize, books of the value of £5 5s., for the best examination in German.—Medals and Certificates of Honour, annually, in each class after examination.

Clinical Prizes.—Two Senior Medical and two Senior Surgical Prizes (third and fourth years), value in each department £5 5s. and £3 3s.; two Junior Medical and two Junior Surgical Prizes (second year), values £3 3s. and £2 2s.; Midwifery Prize, £4 4s.

Further particulars may be obtained by application to the Rev. the Warden, at the College; to Dr. Jolly, 83, or Dr. Sawyer, 92, Newhall Street, or to Dr. Hinds, 10, Easy Row.

BRISTOL MEDICAL SCHOOL.—Perpetual Fees to Lectures (except Comparative Anatomy), £57 15s. Separate Classes: *a* with *b*, *c*, *h*, *i* with *k*, single, £5 5s.; perpetual, £8 8s.; *e*, single, £5 5s.; perpetual, £7 7s.; *g*, *n*, single, £4 4s.; perpetual, £6 6.; *f*, *p*, *q*, single, £3 3s.; perpetual, £5 5s.; *o*, single, £3 3s.; perpetual, £4 4s.; *r*, single, £4 4s.—H.P.—*Royal Infirmary.* Surgeon's pupil, 1 year, £12 12s.; 2 years, £21; 3 years, £26 5s., each in one payment. Dresser (extra fee) 1 year, £12 12s.; 2 years, £21; 3 years, £26 5s., each in one payment. Physician's pupil, 3 months, £8; 1 year, £15; eighteen months, £20; perpetual, £25. Entrance fee, £5 5s. Library, £1 1s. *per annum.* Apprenticeship to House-Surgeon, including five years' residence, and attendance on Hospital Practice, £315 (except Dresser's fees. House-Pupils, £52 10s. per annum, with fee of £52 10s. to House-Surgeon. *General Hospital.* Medical or Surgical Practice, 6 months, £6; 1 year, £10; perpetual, £20. Extra Fee for Clinical Clerk or Dresser, £5 5s. for six months. Library Fee, £1 1s. *per annum.* Resident Pupils, £100 for the first year; £60 for each subsequent year; or five years, with apprenticeship, £260.

Clinical Instruction, etc.—Clinical Lectures are delivered at the Royal Infirmary and the General Hospital. The Royal Infirmary contains 242 beds, of which 112 are medical, and 126 surgical. The General Hospital contains 154 beds. The Infirmary and the Hospital each contain a Library and a Museum.

Appointments. — Royal Infirmary. Each physician can appoint a Clinical Clerk from among the most diligent of his pupils. Dressers reside in the house in weekly rotation when qualified. A Pathological Clerk is appointed every three months, and receives £3 3s. if his duties have been performed satisfactorily.—*General Hospital.* Clinical Clerks and Dressers are appointed. The Dressers reside in the hospital in rotation, free of expense.

Prizes.—Prizes and Certificates of Honour will be distributed at the end of the winter session, after examination in all the subjects of each year.—Prize and Certificates of Honour for Practical Anatomy.—*Royal Infirmary.* Suple's Medical Prize, and Suple's Surgical Prize, each a gold medal value £5 5s. and about £7 7s. in money, awarded after examinations in Medicine and in Surgery respectively. Clark's prize (interest of £500) to the prizeman of the third year in the Medical School, if he have attended the Royal Infirmary. *General Hospital.* Guthrie Medical Scholarship and Clarke Surgical Scholarship, each £15, annually. Sanders Scholarship (interest of £500) for Proficiency in Medicine and Surgery.

Further particulars respecting the Infirmary may be known on application to the House Surgeon of the Infirmary; respecting the Hospital, on application to Mr. Dobson, at the Hospital. Information regarding the Medical School will be afforded by the Honorary Secretary, Dr. G. F. Burder.

LEEDS SCHOOL OF MEDICINE.—Aggregate Fee for Lectures required by examining bodies, £46 4s., payable either at once or in two instalments at the beginning of the first and second winter sessions. Entrance Fee to Library and Reading-Room, £1 1s. Separate Classes: *a*, *b*, *c*, 1st session, £6 6s.; *e*, 1st session, £4 4s.; 2nd session, £3 3s.; *f*, *o*, single, £3 3s.; 2nd session, £5 5s.; *h*, *i*, 1st session, £5 5s.; 2nd session, £3 3s.; *g*, *n*, *p*, *q*, 1st session, £4 4s.; 2nd session, £2 2s.; *r*, single, £2 2s. Vaccination, £1 1s.—H.P.—Leeds Infirmary, Medical or Surgical, each—a winter session, £7 7s.; a summer session, £6 6s.; 12 months, £12 12s.; 18 months, £15 15s.; 3 years, £21.

Museums, etc.—There are Anatomical, Pathological, Chemical, Botanical, and Materia Medica Museums. There is a large and well-fitted Chemical Laboratory, where instruction in Practical Chemistry is given. The fees are: 1 month, £4 4s.; 2 months, £7 7s.; 3 months, £10 10s; 4 months, £13 13s.; 5 months, £15 15s.; 6 months, £17 17s.; 9 months, £21.

Clinical Instruction, etc.—Clinical Lectures are delivered by the Physicians and Surgeons of the Infirmary, which contains 310 beds.—Courses of Practical Physiology and Practical Surgery are given.—Demonstrations of Cutaneous and Aural Diseases, and Ophthalmoscopic Demonstrations, are given.—The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases, and a course of lectures will be given during the summer.—Students can also attend the practice of the Leeds Public Dispensary and the Fever Hospital. There are several Resident Appointments at these Institutions.

Hospital Appointments.—Every student in turn must hold the offices of Clinical Clerk and Dresser. Three Assistants are elected to work under the direction of the Resident Medical Officers. They are selected from the senior students who have shown industry and skill as Dressers and Clinical Clerks.

Prizes.—At the close of each Session, Silver and Bronze Medals, Books, and Certificates of Honour, are awarded according to merit.—The Hardwick Clinical Prize, value £10, is given annually for the best reports of medical cases, and the Surgeon's Clinical Prizes of £8, £5, and £3, for the best reports of surgical cases, during the winter session. The Thorp Scholarship in Forensic Medicine (£10) at the close of each summer session.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—Aggregate Fee for Lectures, £47 5s., or in two equal instalments. Separate Classes, *a*, *c*, *h*, first and second courses, each £4 4s.; third course, £2 2s.; *d*, *f*, each course, £3 3s.; *e*, first course, £5 5s.; second and third, each £2 12s. 6d.; *g*, *n*, first course, £4 4s.; second and third, each £2 2s.; *i*, first course (including *l*), £5 5s.; second course, £4 4s.; *m*, Dental Mechanics, each course, £2 2s.; *o*, *p*, *q*, first course, £3 3s.; second and third, each £1 11s. 6d.; *r*, first course, £2 2s.; second and third, each £1 1s. Vaccination, £1 1s. Practical Pharmacy, £3 3s.—H.P.—*Royal Infirmary*, Medical—6 months, £5 5s.; 12 months, £6 6s.; Surgical, 6 months, £6 6s.; 12 months, £8 8s.; perpetual to both, £33 12s.—*Northern Hospital:* perpetual, £31 10s.; a year, £12 12s.; 6 months, £9 9s.; 3 months, £6 6s. For either the medical or surgical practice separately, half the above fees.

Museums, etc.—There are a Museum containing specimens of Morbid and Comparative Anatomy; a collection of Wax Models; and a collection of Materia Medica, a Library and a Reading Room.

Clinical Instruction, etc.—Clinical Lectures are given weekly at the Royal Infirmary, which contains nearly 300 beds; the Lock Hospital adjoining contains 80 beds. The Northern Hospital contains 146 beds. For the study of Mental Diseases, a class will be formed to attend the practice of the Rainhill Asylum, where instruction will be given by Dr. Rogers once a week during the Summer.

Appointments: Royal Infirmary.—Six Dressers and six Clinical Clerks are elected quarterly.

Exhibitions and Prizes.—Four Exhibitions, value £31 10s. each. Two (the examinations being in Medicine and Surgery) are competed for on each occasion; the holders are entitled to free board and residence in the Royal Infirmary for six months, with Dressership. Gold Medal for Anatomy and Physiology, presented by Mr. Torr, M.P. Prize of £5 5s. (for Anatomy and Physiology) presented by Dr. J. Bligh, to be divided among two first students of first year. Medals and Certificates of Honour for groups of subjects according to year of study. Clinical Prize to be awarded by the Surgeons of the Infirmary in May, 1875, value £5, for the best report of twelve surgical cases in the Infirmary.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Physicians: Dr. Cameron, Dr. Carter. Surgeons: Dr. Nottingham, Mr. Hamilton, Dr. Wollaston. The hospital contains 200 beds. Clinical Lectures are given by the Physicians and Surgeons during the Winter and Summer sessions. Clinical Clerkships and Dresserships are open to all students. There is a special ward for diseases and accidents of Children. Fees for Hospital Practice and Clinical Lectures, perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. The practice of the Hospital is recognised by all the examining bodies. For further particulars application must be made to the House-Surgeon.

OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.—Aggregate Fee for Lectures, £48 in one sum, or two instalments of £25 each, at beginning of first and second years. Separate classes for one course, *a*, *c*, *h*, *i*, £5 5s.; *b*, *r*, £4 14s. 6d.; *d*, *e*, *l*, £3 3s.; *f*, *g*, *n*, *o*, *p*, £4 4s.; *q*, *t*, £2 12s. 6d.—H.P. Royal Infirmary, composition fee, £42, or two instalments of £22 each; or Medical Practice, three months, £6 6s.; six months, £9 9s.; twelve months, £12 12s.; full period £18 18s.; Surgical, three months, £9 9s.; six months, £12 12s.; twelve months, £18 18s.; full period, £31 10s. Practical Pharmacy, three months, £3 3s.; six months, £5 5s.

The *Royal Infirmary* contains 100 medical and 170 surgical beds. In addition to the practice of the Infirmary, the Monsall Fever Hospital (130 beds) and the Barnes Convalescent Home (140 beds) will be open, under certain regulations, for the purposes of instruction. The Royal Lunatic Asylum at Cheadle is also connected with the Infirmary, and accommodates 150 patients.

Museums, etc.—Museums of Human and Comparative Anatomy and of Materia Medica, and Physiological and Chemical Laboratories, are connected with the College.

Clinical Instruction, etc.—Medical Demonstrations will be given by Dr. Leech, and Surgical Demonstrations by Mr. Bradley and Mr. Whitehead. These classes must be attended for three months before a clerkship or dressership can be taken, or the clinical classes attended.—Pathological Demonstrations are given by Dr. Dreschfeld.—Medical Clinical Classes are held, in the winter by Dr. Roberts, and in the summer by Dr. Simpson; and Surgical Clinical Classes by Mr. Southam and Mr. Lund in the winter, and Mr. Heath in the summer. Ward-classes are also held by the other Physicians and Surgeons.—Dr. Simpson will give instruction in the use of the Laryngoscope; Dr. Wilkinson, clinical instruction in Fever and Contagious Diseases; Mr. Windsor, practical lessons in the Examination of the Eye; Dr. Thorburn, clinical instruction in Diseases of Women; and Mr. Mould, demonstrations of Mental Diseases.

Appointments.—Dressers and Clinical Clerks in the Royal Infirmary, are appointed for periods of three months. Two senior House-Surgeons, two junior House-Surgeons, two House-Physicians, and four Physicians' Assistants are appointed annually, with board, residence, and salary.

Prizes.—In addition to three scholarships, value £20, £15, and £10, for perpetual students, prizes, and certificates of Honour will be given for General Proficiency.—Platt Physiological Scholarship, value £50, tenable for two years, to students who have attended Physiology in the College Laboratory during one session, for best original investigation in Physiology in the College Laboratory, and the result of a written examination.—Dumville Surgical prize, value £20, at end of winter session, to students of two years, who have attended four courses, including at least one in Surgery.—Medical and Surgical Clinical Prizes, value of each £6 6s., are given for reports of cases. A Gilchrist Scholarship of £50 *per annum*, tenable for three years in the College, to the candidate standing highest in the Matriculation Examination of the University of London in June, if in the Honours Division; or two of £25 each to the first two candidates in the First Division.

Prospectuses may be obtained from the Registrar, Mr. J. H. Nicholson.

SHEFFIELD MEDICAL SCHOOL.—Aggregate Fee for Lectures, £42. Separate classes: *a* and *c* (including *d*) first course, £6 6s.; second course, £4 4s.; *b*, each course, £4 4s.; *h i*, first course, £4 4s.; second course, £2 2s.; *e*, *f*, *g*, *k*, *m*, *p*, *q*, each course, £3 3s.; *e*, £3 3s.—H.P., Sheffield General Infirmary, Medical or Surgical, 6 months, £6 6s.; 12 months, £10 10s.; Perpetual—Medical, £15 15s.; Surgical, £21.

The General Infirmary contains 200 beds. Opportunities for clinical study may be obtained at the Sheffield Hospital and Dispensary (99 beds), and at the Sheffield Hospital for Diseases of Women.

The *Infirmary* contains a Museum of Pathology, a Library, and a *Post Mortem* Theatre, with Microscopes and all the appliances for clinical research.—The Library of the Medical School is open to students.

Prizes and Certificates of Honour are given annually.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Fee for all the Lectures except Practical Pharmacy): one payment, £52 10s.; two payments, each £28 7s.; three payments, each £21. Single courses, £4 4s. each. Single course of Chemistry, £5 5s. Chemistry and Practical Physiology are excepted from the courses which may be attended in perpetuity by composition students. Vaccination, £1 1s. H.P., Newcastle Infirmary: 3 months, £4 4s.; 6 months, £5 5s.; 12 months, £7 7s. Perpetual Fee, £17 17s.; or by instalments, first year, £7 7s.; second year, £6 6s.; third year, £5 5s.

The Newcastle Infirmary contains 230 beds. Four Resident Dressers are elected half-yearly. They are provided with board and apartments on payment of £10 10s. for the six months. Midwifery can be attended at the Newcastle Lying-in Hospital, and Diseases of the Eye at the Eye Infirmary. A course of Practical Physiology will be given during the summer by the Professor of Physiology and Biology. Fee for use of microscopes, 10s. 6d. Separate courses of Materia Medica and Pharmaceutical Chemistry, and of Therapeutics, are delivered; the former by Dr. W. C. Arnison, and the latter by Dr. T. Humble.

The Laboratories, Libraries, and Museums of Anatomy, Pathology, and Materia Medica are open daily.

Pharmacy.—Special arrangements have been made for instruction in Pharmacy. The curriculum will consist of courses of lectures in Botany, Materia Medica, Chemistry, and Pharmacy. Fee for curriculum, perpetual, £6 6s.; separate courses, each £4 4s.; single course of lectures on chemistry, £5 5s.

Prizes.—A medical Scholarship, annual value £25, tenable for four years, in October, 1874, open to candidates who have been registered at Durham as students of medicine.* The Dickinson Memorial Scholarship, value, £15 annually, to the candidate who has passed the first examination of a licensing board, and who shall have passed a satisfactory examination in the principles and practice of Medicine, Surgery, Midwifery, and in Pathology and Pathological Anatomy. A Silver Medal and Certificates of Honour in each class.

Further information may be obtained from the Secretary, Dr. W. C. Arnison, Newcastle-on-Tyne.

UNIVERSITY OF ABERDEEN.—Fee to each class, £3 3s., except Anatomical Demonstrations, £2 2s. Matriculation fee, both sessions, £1; summer session alone, 10s. A three months' course of Practical Ophthalmology is given in summer.

ROYAL INFIRMARY, ABERDEEN.—Perpetual fee, £6: or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s.—The General Dispensary and the Lying-in and Vaccine Institutions are open daily, and the Eye Institution three days in the week.—Clinical Instruction is given in the Royal Lunatic Asylum for three months in the year.

UNIVERSITY OF EDINBURGH.—Minimum expenses for Lectures and Hospital Practice (including also £21 for degrees of M.B. and C.M.), £104 18s.; Annual Fee for each subject required in the ordinary curriculum (including Clinical Medicine and Clinical Surgery), £4 4s.; except Anatomical Demonstrations; Dispensary (third winter) and Instruction in Vaccination, each, £1 1s.; Practical Midwifery, £1 4s.; Practical Pharmacy and Dispensary (third summer (each £2 2s.; Practical Anatomy and Practical Chemistry, each £3 3s.—Every Student, before entering with any Professor, must produce a matriculation ticket for the ensuing session, for which a fee of £1 is paid at the beginning of each winter session. Students first entering in the summer session pay a matriculation fee of 10s. for that session.—The Library is open every lawful day during the winter session, from 10 A.M. till 4 P.M.; on Saturdays, till 1 o'clock.

Fellowships, etc.—Falconer Memorial Fellowship, value £100, tenable for two years, open to graduates in Science or Medicine of the University of not more than three years' standing. The next appointment may be made in October, 1874. Syme Surgical Fellowship, value about £100, tenable for two years, open to Bachelors of Medicine of not more than three years' standing, who shall present the best Thesis on a Surgical subject, giving evidence of original research. Sibbald Scholarship, value about £40, tenable for four years. The next vacancy may be in 1875. Abercromby Bursary of £20, for four years, to students who have been brought up in Heriot's Hospital. Sibbald Bursaries £30 each, tenable for four years, open to the sons of duly registered medical men practising, or who may have practised in Scotland, and to the sons of parents who are or may have been householders in Edinburgh. Grierson Bursary, £20 per annum for three years, at end of first Winter Session: Subjects of Examination—Chemistry, Botany, and Natural Philosophy. Tyndall-Bruce Bursary, £25 for one year, at end of third Winter Session: Subjects—Materia Medica and Pathology. (The above three bursaries are to be awarded in November. Competitors must have studied the subject of examination at the University of Edinburgh.) Ettles Medical Prize, value £40, to the most distinguished Graduate in Medicine of the year. Hope Chemistry Prize, value £100, open to all students of the University not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory. Neil Arnott Prize, about £40, to the candidate who, having been a medical student of the University during either a summer or a winter session, shall pass with the greatest distinction the Ordinary Examination in Natural Philosophy for the degree of M.A. The successful candidate must continue to prosecute his medical studies in the winter session succeeding the award. The Ellis Prize for the best Essay on the Respiration of Plants as distinguished from their Nutrition, open to students or graduates of five years' standing. Value, proceeds of sum of £500 accumulated for three years. Goodsir Memorial Prize, to be founded in commemoration of the late Professor Goodsir.—Gold Medals are given on Graduation to Doctors of Medicine whose Theses are deemed worthy.

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* The subjects of examination are: The Gospel of St. Luke in Greek; Latin Grammar; Cæsar, *De Bello Gallico*, Book IV; Virgil, *Æneid*, Book VI; Arithmetic and Algebra: Euclid, Books I and II; History of England—James I, Charles I and II, with the Commonwealth.

EDINBURGH ROYAL INFIRMARY.—Fees: 6 months, £3 3s.; 1 year, £5 5s.; perpetual, £10 10s. Clinical Medicine and Clinical Surgery, each £4 4s. for the course.—No fees for any medical or surgical appointment. Four Resident Physicians and four Resident Surgeons are appointed; they live in the house for six months free of charge. Candidates must be registered as legally qualified practitioners. Non-resident Clinical Clerks are appointed. Each surgeon appoints from four to nine Dressers for six months. Assistants in the Pathological Department are appointed by the Pathologist.—Instruction is given in special departments.

SCHOOL OF MEDICINE, EDINBURGH.—The courses qualify for examination for various diplomas and licenses, and for degrees in those years in which University residence is not required.

Fees.—For the first of each Winter Course of Lectures, £3 5s.; second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee is £2 4s. Second Course of Midwifery, £1 3s. Practical Chemistry and Practical Anatomy (six months), each £3 3s. Anatomical Demonstrations, £2 2s.; with Practical Anatomy, £1 1s.; perpetual, £4 4s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Vaccination, £1 1s.; State Medicine and Hygiene, £2 2s. Summer Courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including demonstrations, Operative Surgery, Diseases of the Eye, Insanity, and State Medicine and Hygiene, each £2 2s.—The minimum education cost in this school for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons of Edinburgh, including the examination fee, is £90 4s., payable by yearly instalments; for the single diploma of either Physician or Surgeon, including the examination fee, £80.

Practical instruction in various subjects may also be obtained on payment of moderate fees at the Sick Children's Hospital, Royal Public Dispensary and New Town Dispensary, Royal Maternity Hospital, and the Edinburgh Eye Infirmary.

UNIVERSITY OF GLASGOW.—Fees, each course, £3 3s.; except Lectures on the Eye, £1 1s.

GLASGOW ROYAL INFIRMARY.—Fees, 1st and 2nd years, each £3 3s.; 3rd year, and perpetual, £1 1s.; 6 months, £2 2s.; 3 months, £1 11s. 6d. Vaccination, £1 1s.; Practical Pharmacy (6 months), £3 3s. Clinical Lectures in Medicine or Surgery: 1st and 2nd winter courses, each £3 3s.; 3rd course, £1 1s.; summer course, £1 11s. 6d.

GLASGOW EYE INFIRMARY.—Fee, 6 months, £2 2s.; to students who are attending or have attended the Lectures on the Eye in the University, £1 1s.

Instruction may also be obtained at the Glasgow University Lying-in Hospital and Dispensary for Diseases of Women and Children; and at the Dispensaries for Diseases of the Skin and Ear; and the Royal Lunatic Asylum, Gartnavel, is open to students on payment of a small fee.

GLASGOW.—ANDERSON'S UNIVERSITY.—Fees for all the Lectures required for the Diplomas of Physician and Surgeon, £50. Class Fees for each course of Lectures: First session, £2 2s.; 2nd session, £1 1s.; afterwards free. Anatomy Class Fees, for Lectures and Demonstrations: 1st session, £4 4s.; 2nd session, £4 4s.; perpetual, £8 8s. The Dissecting-room is free for two sessions to those who attend both courses of Anatomy; after the second year, £1 1s. per session. There is a Matriculation Fee of £1 1s. at the beginning of each Winter Session.

IT is proposed to establish a College of Science and Literature in Bristol, and to incorporate with it the Medical School which has existed in that city for many years. The institution will, we presume, be analogous to the Queen's College in Birmingham, and Owens College in Manchester.

PRIZES IN THE MEDICAL SCHOOLS.

THE following are lists of the successful candidates for prizes in the various schools during the session 1874-75.

ST. BARTHOLOMEW'S HOSPITAL.—*Lawrence Scholarship and Gold Medal*—E. Crétin. *Brackenbury Medical Scholarship*—A. J. Sturmer. *Brackenbury Surgical Scholarship*—E. Crétin. *Senior Scholarship in Anatomy, Physiology, and Chemistry*—F. S. Eve. *Open Scholarship in Science*—R. H. A. Schofield. *Preliminary Scientific Exhibition*—T. E. Hayward. *Jeaffreson Exhibition*—F. H. Craddock. *Kirkes Gold Medal*—J. Macready. *Bentley Prize*—J. K. Barton. *Hichens Prize*—S. M. Smith. *Wix Prize*—A. S. Eccles.—*Practical Anatomy* (Senior): *Foster Prize*—F. S. Edwards; 2. F. S. Eve; 3. T. J. Verrall; 4. W. A. Shoolbred; 5. A. Upton; 6. W. R. Pearless; 7. H. A. Glyn; 8. A. G. Williams; 9. J. W. Roughton and H. Sloman, equal; 11. L. B. Calcott. Junior: *Treasurer's Prize*—P. A. Steedman; 2. A. R. Anderson and T. G. Davey, equal; 4. H. T. Steele; 5. G. O. Mead; 6. H. J. Capon; 7. J. Wilmot; 8. R. H. A. Schofield; 9. A. J. Bathe; 10. R. F. Cumming.

CHARING CROSS HOSPITAL.—*Winter Session*, 1873-74: *Llewellyn Scholarship*—R. W. Jolly. *Golding Scholarship*—J. G. Blackman. *Anatomy* (senior)—Medal (silver), P. B. Conolly; Certificates (equal), D. E. S. Bain and W. J. Brookes: (junior), Medal (bronze), H. R. Whitehead; Certificate, D. Colquhoun. *Physiology* (senior)—Medal (silver), P. B. Conolly; Certificate, W. H. Packer: (junior), Medal (bronze), J. L. Roberson: Certificate, A. Greenwood. *Chemistry*—Medal (silver), D. Colquhoun; Certificate, A. Greenwood. *Medicine* (senior)—Medal (silver) C. J. Woollett: (junior), Medal (bronze), J. A. Phillips; Certificates, J. G. Blackman and W. H. Packer. *Surgery* (senior)—Medal (silver), C. J. Woollett; Certificates, R. W. Jolly and G. Cheesman: (junior), Medal (bronze), P. B. Conolly; Certificates, W. H. Packer and T. Traverse.—*Summer Session*, 1873: *Botany*—Medal (silver), J. G. Blackman; Certificate, D. S. E. Bain. *Materia Medica*—Medal (silver), J. G. Blackman; Certificates, J. A. Phillips and H. Richardson. *Midwifery*—Medal (silver), C. J. Woollett. *Forensic Medicine*—Medal (silver), R. W. Jolly. *Pathology*—Medal (silver), R. W. Jolly; Certificate, C. J. Woollett. *Practical Chemistry*—Medal (silver), J. G. Blackman; Certificate, J. A. Phillips.

ST. GEORGE'S HOSPITAL.—*William Brown £40 Exhibition*—Mr. Hardy. *Sir Charles Clarke's £40 Exhibition*—Mr. Bull. *Brackenbury Prize in Medicine*—Mr. Frost. *Brackenbury Prize in Surgery*—Mr. Frost. *Sir Benjamin Brodie's Prize in Surgery*—Mr. Bull. *Henry Charles Johnson's Prize*—Mr. Dunbar. *Treasurer's Prize*—Mr. Spitta. *Third Year's Proficiency*—Mr. Bull. *Second Year's Proficiency*—Mr. Wynn Webb. *First Year's Proficiency*—Mr. F. Goodchild.

GUY'S HOSPITAL.—*Treasurer's Gold Medal for Medicine*—Daniel H. Forty, Shillingford. *Treasurer's Gold Medal for Surgery*—Wm H. Harsant, Epsom. *Third Year's Students*—H. F. Lancaster, Southsea, First Prize, £40; W. E. Snook, Colyton, Second Prize, £35; H. Caddy, Ulverston; St. Clair B. Shadwell, Walthamstow; and W. Cock, Redruth, Certificates. *Second Year's Students*—John Brett, London, and W. P. Reynolds, Dulwich, equal, £32 10s. each: R. Bevan, Redruth (*Proxime Accessit*): B. W. Gathergood, Torrington St. John; and J. B. Waterhouse, Isle of Wight, Certificates. *First Year's Students*—J. W. Meek, Macclesfield; and H. Davy, Ottery St. Mary, equal, £27 10s. each; P. Horrocks, Farnworth, Third Prize, £10 10s. presented by a Governor; J. T. Hinton, Croydon; and J. Poland, Blackheath, Certificates. *Entrance Examination, October* 1873—J. C. Uhthoff, First Prize, £25; F. H. Berry, Second Prize, £20; J. H. Poland, Blackheath, Third Prize, £15; J. Poland, and C. St. John Wright, Certificates.

KING'S COLLEGE.—*Winter Session*, 1873-74: *Anatomy*, John Symons; *Physiology*, E. A. Snell; *Chemistry*, Adam Sedgwick and Arthur Sedgefield; *Medicine*, F. G. Hayes; *Surgery*, R. L. Batterbury; *Clinical Surgery*, R. L. Batterbury and C. N. Griffiths. *Warneford Prizes*, N. J. C. Tizard and R. L. Batterbury. *Leathes Prize*, N. J. C. Tizard.—*Summer Session*, 1874: *Practical Physiology*, Sidney Skerman; *Practical Chemistry*, C. E. Baddeley; *Botany*, C. E. Baddeley; *Obstetric Medicine*, C. W. E. Gay; *Forensic Medicine*, R. L. Batterbury; *Clinical Medicine*, R. L. Batterbury. *Todd Prize for Clinical Medicine*, F. G. Hayes; *Materia Medica*, F. De Caux; *Pathological Anatomy*, G. S. Johnson; *Clinical Surgery*, E. Ground.

LONDON HOSPITAL.—*Clinical Medicine*—£20 Scholarship, Mr. V. L. Jones. *Clinical Surgery*—£20 Scholarship, Mr. C. A. Mercier; Honorary Certificate, Mr. R. H. Fox. *Clinical Obstetrics*—£20 Scholarship, Mr. A. G. Buckland; £5 to Student who has attended most Midwifery cases during the year, Mr. E. Brumwell. *Dressers' Prizes*—£15 Prizes, Mr. D. Birtwell, Mr. C. Hoar, Mr. T. Chant; £5 Prizes, Mr. W. Stewart, Mr. W. P. Mears, Mr. J. E. G. Sykes. *Buxton Scholarships*—£30 Scholarship, Mr. M. Greenwood; £20 Scholarship, Mr. H. P. Burry; Honorary Certificate, Mr. C. F. Hawkins. *Human Anatomy*—£20 Scholarship, Mr. H. L. Palmer; Honorary Certificates, Messrs. J. S. Nickoll and J. Gabe. *Anatomy, Physiology, and Chemistry*—£25 Scholarship, Mr W. P. Mears; Honorary Certificate, Mr. H. T. Batchelor. *Special Certificates awarded to Medical Assistants for Three Months' Service*—Messrs. F. H. Kyngdon, S. B. Mason, V. L. W. Jones, C. L. Drew, J. B. Ruddock, G. B. Sincock, W. Lang, G. E. Williamson, H. Habgood, H. E. Walker, W. F. F. Boase, T. P. Harvey, J. H. Turtle.

ST. MARY'S HOSPITAL.—1873: *Scholarship in Pathology*, Mr. G. C. A. Moir. 1873-74: *Scholarship in Anatomy*, Mr. B. Schlesinger. *Prosectors*, Mr. A. S. Brown and Mr. H. Manders. *Summer Session*, 1873.—*First Year: Botany*: Honorary Certificate—Mr. J. G. Garbutt. *Materia Medica*: Honorary Certificates—Messrs. M. H. Allen, G. A. Duke, and C. J. R. Owen. *Practical Chemistry*: Prizes—Mr. A. S. Brown and Mr. J. G. Garbutt; Honorary Certificates—Mr. W. Weddell (first in examination, but disqualified for prize as *Natural Science Exhibitioner*), Messrs. T. Clements, F. A. Cox, and H. Manders. *Second Year: Midwifery*: Prize—Mr. T. J. Hitchins; Honorary Certificates—Messrs. G. M. J. Giles, R. V. Musgrave, H. M. Sampson, F. S. Scovill, and A. Wise. *Medical Jurisprudence*: Prize—Mr. G. M. J. Giles; Honorary Certificate—Mr. T. J. Hitchins. *Winter Session*, 1873-74.—*First Year: Anatomy and Histology*: Prize—Mr. J. B. Coumbe; Honorary Certificates—Messrs. W. E. Luscombe (Histology), C. J. R. Owen and H. L. Webb (Anatomy). *Chemistry*: Prize—Mr. F. A. Cox: Honorary Certificate—Mr. E. Downes. *Second Year: Anatomy and Physiology*: Prize—Mr. H. Manders; Honorary Certificates—Mr. J. G. Garbutt (Anatomy and Physiology), Messrs. A. S. Brown, R. D. Hodson, and E. A. Roche (Anatomy), Mr. W. W. Weddell (Physiology). *Third Year: Medicine*: Prize—Mr. H. Sworder. *Surgery*: Prizes—Mr. E. J. Edwards, Mr. G. M. Giles, and Mr. S. J. Thompson; Honorary Certificate—Mr. T. Hitchins. *Pathology*: Prize given by Dr. Cheadle—Mr. G. M. J. Giles; Honorary Certificate—Mr. H. Sworder. *Third and Fourth Year: Clinical Medicine and Surgery*: Prize—Mr. S. J. Thomson.

Middlesex Hospital—*Broderip Scholarships*—1. Mr. J. W. B. Mason; 2. Mr. A. T. Scott. *Governor's Prize*—Mr. J. W. B. Mason. *Clinical Prize*—Mr. J. A. Fothergill. *Medicine*—Mr. J. W. B. Mason. *Surgery*—Mr. Arthur Lucas—*Pathological Anatomy*—Mr. J. W. B. Mason. *Practical Surgery*—Mr. J. W. B. Mason. *Anatomy*—Mr. A. Lucas. *Physiology*—Mr. A. Lucas. *Chemistry*—Mr. W. S. Bennett. *Dissections*—Mr. G. R. E. Bonsall and Mr. J. H. L. Macintire, equal. *Midwifery*—Mr. T. Cambridge and Mr. A. Lucas, equal. *Medical Jurisprudence*—Mr. A. Lucas. *Materia Medica*—Mr. F. Bellaby. *Botany*—Mr. F. Bellaby. *Practical Chemistry*—Mr. E. Jewers. *Practical Physiology*—Mr. E. A. Fardon. *Psychological Medicine*—Mr. P. K. Cree. *Medical Society's Prizes*—Mr. D. Hepburn, Mr. J. W. B. Mason. *Entrance Scholarships*, October 1872—1. Mr. Reginald Paul; 2. Mr. Walter Scott Thomson. *Certificates of Honour*—Mr. A. T. Scott (Medicine and Practical Surgery); Mr. G. S. K. Bigg (Anatomy); Mr. T. Cambridge (Anatomy and Surgery); Mr. Macintire (Physiology, Forensic Medicine, and Psychological Medicine); Mr. Proffitt (Chemistry, Materia Medica, Practical Physiology, and Practical Chemistry); Mr. Bennett (Practical Physiology and Practical Chemistry); Mr. Thomson (Forensic Medicine); Mr. Percy Cree (Midwifery); Mr. Paul (Midwifery); Mr. Walker (Midwifery); Mr. James (Practical Chemistry); Mr. Bellaby (Practical Chemistry).

St. Thomas's Hospital.—*Summer Prizes: First Year's Students:* College Prizes and Certificates—J. F. Nicholson, £15; M. H. Green, £10; J. S. Lush, £5. *Second Year's Students:* William Tite Scholarship and Certificate—F. H. Peck; College Prizes and Certificates—T. Fisher, £10; H. C. Sandford, £5.—*Winter Prizes: First Year's Students:* College Prizes and Certificates—C. E. Sheppard, £20; G. B. Longstaffe, £15; F. H. Weekes, £10. *Second Year's Students:* William Tite Scholarship and Certificate—F. H. Peck; College Prizes and Certificates—J. F. Nicholson, £20; T. Fisher, £10. *Third Year's Students:* College Prizes and Certificates—H. P. Potter, £20; H. C. Sandford, £15; H. G. Armstrong, £10. *Physical Society's Prizes:* Third Year, J. Crossman; Second Year, S. W. J. Joseph; First Year, W. W. Lake. *Prosectors:* Prizes and Certificates—J. A. Hunt and H. J. M. Todd. *Surgery and Surgical Anatomy:* Cheselden Medal—H. P. Potter. *Resident Accoucheurs:* Certificates—G. M. Whitehead, C. H. Newby, I. Boulger, E. H. Davis. *House-Physicians:* Certificates—E. Welchman, H. B. Donkin, T. Highton, C. M. Taylor, H. S. Bennett. *House-Surgeons:* Certificates—I. Boulger, E. Welchman, A. V. Maybury, H. W. Verdon. *For General Proficiency and Good Conduct:* Treasurer's Gold Medal—H. C. Sandford; Certificate—H. P. Potter.

University College.—*Winter Session*, 1873-74: *Surgery*—Gold Medal, L. J. Hobson; Silver Medals, D. N. Parakh, B. M. Roth, and A. Peck. *Medicine*—Gold Medal, A. Hullard; Silver Medals, P. T. Duncan and J. A. Kempe. *Anatomy*—Gold Medal, F. J. Davies; Silver Medals, Alfred Rees and C. W. Godfrey. *Physiology*—Gold Medal, G. C. Henderson; Silver Medals, B. A. Whitelegge and W. K. Layborn. *Chemistry*—Gold Medal, C. Metford Thompson; Silver Medals, E. B. Sargant and N. S. Whitney. *Comparative Anatomy*—Silver Medal, W. G. Chuckerbutty. *Practical Physiology and Histology*—Gold Medal, J. E. Neale; Silver Medals, J. C. Henderson and H. B. Price. *Clinical Medicine*—Fellowes Medal (gold), P. T. Duncan; (silver), H. D. Farnell and T. K. Rogers. *Junior Class*—Silver Medals, W. Y. Harvey and T. C. Fox. *Clinical Surgery*—Liston Gold Medal, C. J. Manning.—*Summer Session*, 1874: *Midwifery*—Gold Medal, L. J. Hobson; Silver Medals, M. N. Traill and G. C. Henderson. *Practical Chemistry (Senior Class)*—Gold Medal, H. R. O. Sankey; Silver Medals, H. Sainsbury and G. C. Henderson: *(Junior Class)*—Gold Medal, Alex. Hill; Silver Medals, A. H. Scott-White and K. R. Smith. *Pathology*—Filliter Exhibition, A. J. Pepper; Silver Medal, L. S. Jameson. *Medical Jurisprudence*—Gold Medal, G. Voelcker: Silver Medal, W. J. Seward. *Botany*—Gold Medal, H. Cane; Silver Medal, N. S. Whitney. *Hygiene*—Silver Medal, W. J. C. Swift. *Materia Medica*—Gold Medal, B. A. Whitelegge; Silver Medals, S. R. Corder and G. C. Henderson.

Westminster Hospital.—*Entrance Scholarship*—George T. Trewman. *First Year's Class Certificates: Anatomy*—G. S. Robertson, C. L. Gill, A. W. Aldrich, George Eliot. *Physiology*—Theodore Bodecker, A. W. Aldrich, G. S. Robertson. *Chemistry*—Theodore Bodecker, Wm. Foster. *Mr. Davy's Prize*—George Eliot and Christopher L. Gill, equal. *Exhibition in Anatomy and Physiology*—George S. Robertson. *Second Year's Class Certificates: Anatomy*—W. J. Quicke, Richard Clarke, S. C. Harris. *Physiology*—Richard Clarke, W. J. Quicke. *Histology*—W. J. Quicke, Richard Clarke. *Medicine*—Richard Clarke. *Scholarship in Anatomy and Physiology*—William J. Quicke. *Dr. Allchin's Class Prize in Histology, etc.*—W. R. Basham and W. J. Quicke, equal. *Prize for Clinical Medicine and Pathology*—J. L. Jacquet. *Chadwick Prize*—J. L. Jaquet.

Queen's College, Birmingham.—*Medicine*—Arthur B. Vanes, Medal and First Certificate; Henry E. Maberly and Richard H. Norris (equal), Second Certificates. *Physiology*—J. Spofforth, Medal and First Certificate; J. Brett, Second Certificate. *Anatomy (Senior)*—J. Spofforth, Medal and First Certificate; J. Brett, Second Certificate. *Anatomy (Junior)*—Cordley Bradford, Medal and First Certificate; Wm. John Cant, Second Certificate. *Practical Anatomy* (Senior)—J. Spofforth, Medal and First Certificate; J. Brett, Second Certificate. *Practical Anatomy* (Junior)—Wm. Leah, Medal and First Certificate; C. Bradford, Second Certificate. *Chemistry*—Alfred B. Hill, Medal and First Certificate; John H. Vinrace, Second Certificate. *Botany*—J. H. Vinrace, Medal and First Certificate; Henry C. Crewe, Second Certificate. *Forensic Medicine and Toxicology*—Hugh W. Thomas, Medal and First Certificate; J. Brett, Second Certificate. *Midwifery*—H. W. Thomas, Medal and First Certificate; W. Leah, Second Certificate. *Materia Medica*—C. Bradford, Medal and First Certificate; A. B. Hill, Second Certificate. *Practical Physiology*—Chas. J. Devis, Medal and First Certificate; Richard A. Newton, Second Certificate. *Practical Chemistry*—Wm. Philip Whitcombe, Medal and First Certificate; Alfred B. Hill and J. H. Vinrace (equal), Second Certificates. *The Warden's Prize*—C. Bradford and J. H. Vinrace (equal). Prize divided. [N.B. A similar prize was awarded to John Spofforth in 1873, the most proficient student of the first year, by the same donor.] *Prizes of the Clinical Board.—Senior Medical Prizes*—Mr. A. B. Vanes, First Prize, £5 5s.; Mr. Johnson, Second Prize, £3 3s. *Junior Medical Prizes*—Mr. J. H. Palmer, First Prize, £3 3s. *Senior Surgical Prizes*—Mr. Johnson, First Prize. £5 5s.; Mr. T. H. Palmer, Second Prize, £3 3s.; *Junior Surgical Prizes*—Mr. J. Brett, First Prize, £3 3s.; Mr. J. Spofforth, Second Prize, £2 2s. *Midwifery Prize*—Mr. Johnson, £4 4s.

Bristol Medical School.—*First-Year's Prize*, Mr. C. Henderson; *Second-Year's Prize*, Mr. A. F. Parker; *Third-Year's Prize*, Mr. A. S. W. Young; *Prize for Practical Anatomy*, Mr. De Burgh Birch. Royal Infirmary.—*Suple Medical Prize and Gold Medal*, Mr. W. Prichard; *Suple Surgical Prize and Gold Medal*, Mr. C. Newman; *Clark Prize*, Mr. A. S. W. Young. General Hospital.—*Guthrie Scholarship*, Mr. James Taylor; *Clarke Scholarship* (not yet awarded); *Sanders Scholarship*, Mr. F. G. Stevens.

Liverpool Royal Infirmary School of Medicine.—*Exhibitioners:* Mr. Bark, Mr. D. D. Stewart, Mr. G. G. S. Taylor, Mr. J. Marmon. *Third-Year Subjects:* Silver Medal, Mr. Gresham; Bronze Medal, Mr. Marlin; Certificate, Mr. Sandberg. *Second-Year Subjects:* Silver and Torr Medals, Mr. J. T. Smith; Bronze Medal, Mr. T. Twinem; Certificates, Mr. W. H. Wright and Mr. W. Latham. *First-Year Subjects:* Silver Medal and First Bligh Prize, Mr. A. B. Prowse; Bronze Medal and Second Bligh Prize, Mr. J. Wigglesworth; Certificates, Mr. W. Gillebrand and Mr. D. Harrison. *Summer Session: Second-Year Subjects:* Bronze Medal, Mr. T. Twinem; Certificate, Mr. Miskelly. *First-Year Subjects:* Silver Medals (equal), Mr. A. B. Prowse and Mr. J. Wiggleworth. *Comparative Anatomy and Zoology:* Prize, Mr. J. Wigglesworth; Certificate, Mr. A. B. Prowse.

Leeds School of Medicine.—*Hardwick Prize (Clinical Medicine)*, value £10, E. D. Bower. *The Surgeons' Prize* (Clinical Surgery), value £10, H. E. Taylor. *Medicine*—Certificate, E. D. Bower. *Surgery*—Medal, J. B. Hellier; Certificate, J. P. Lockwood. *Physiology*—Medal, C. H. Cattle; Certificate, Cautley Dawson. *Anatomy* (Senior)—Medal, G. H. Higgins; Certificate, C. Dawson. *Anatomy* (Junior)—Medal, J. H. Thorp; Certificate, R. G. Bailey. *Anatomy (Lecturers' Book Prizes)*—Senior, C. Dawson; Junior, Arthur White. *Chemistry*—Medal, W. North; Certificate, A. White. *Thorpe Prize (Forensic Medicine)*—1st, value £10, C. Dawson; 2nd, value £5, J. B. Hellier. *Forensic Medicine*—Medal, J. B. Hellier; Certificate, C. Dawson. *Midwifery*—Medal, J. B. Hellier; Certificate, C. Dawson; Certificate, G. H. Higgins. *Materia Medica*—Medal, A. White. *Botany*—Certificate, William North. *Practical Chemistry*—Medal, A. White; Certificate, A. K. Scattergood.

Owens College (Manchester Royal) School of Medicine.—*Third Year's Scholarship*, value £20, F. H. Grosholz, Bowdon. *First Prize*, value £5 5s., T. Anningson, Burnley; *Second Prize*, value £3 3s., A. Chadwick, Heywood; *Third Prize*, value £2 2s., T. Gallimore, Rusholme.—*Second Year's Scholarship*, value £15, H. Tomkins, West Gorton. *First Prize*, value £5 5s., J. Chadwick, Milnrow; *Second Prize*, value £4 4s., S. Harris, Manchester; *Third Prize*, value £3 3s., G. L. Lennon, Manchester.—*First Year's Scholarship*, value £10, A. T. Wilkinson, Driffield. *First Prize*, value £5 5s., J. Ferguson, Manchester: *Second Prize*, value £4 4s., T. C. Booth, Manchester; *Third Prize*, value £3 3s, C. F. Diggle, Bury.—*Dumville Prize in Surgery*, value £20, C. E. Smith, Preston.—*Special Prize in Practical Physiology and Histology*, value £10 10s., F. A. Southam, Manchester.

University of Durham College of Medicine, Newcastle-on-Tyne.—*Winter Session*, 1873-1874: *Anatomy:* Medal and Certificate of Honour—Samuel Braithwaite; Certificate of Honour—M. Duggan. *Dissections:* Medal—Samuel Braithwaite. *Physiology:* Medal and 1st Certificate of Honour—H. Drinkwater; 2nd Certificates of Honour—2. M. Duggan; 3. G. R. Moore. *Chemistry:* Medal and Certificates of Honour—1. W. Greenwell; 2. J. C. Gardner; 3rd Certificate of Honour—C. Green. *Special Prize for Proficiency in Anatomy and Physiology:* M. Duggan. *Summer Session.—Chemistry (Practical):* Silver Medal and 1st Certificate of Honour—C. R. Bell. *Botany:* Silver Medal and 1st Certificate of Honour—H. Drinkwater; Certificate of Honour—Chas. Green. *Materia Medica:* Silver Medal and 1st Certificate of Honour—C. J. Sutherland; Certificate of Honour—Wm. Dalziel. *Midwifery:* Silver Medal and 1st Certificate of Honour—S. Braithwaite; Certificate of Honour—W. J. Wood. *Medical Jurisprudence:* Silver Medal and 1st Certificate of Honour—G. O. McKane; 2nd Certificates of Honour—2. Wm. J. Wood; 3. M. Duggan. *Practical Physiology:* Silver Medal and 1st Certificate of Honour—H. Drinkwater; 1st Certificates of Honour—1. Mark Malvin; 2. T. G. Ainsley, C. Green, and Shadforth Morton (equal).—No medals or certificates were awarded for Surgery, Medicine, Therapeutics, or Pathological Anatomy.

Dr. Steevens' Hospital and Medical College, Dublin.—*Cusack Medals and Exhibitions:* Senior, Robert B. McVittie; Middle, John McClung; Junior. Wm. H. Phibbs. *Certificates of General Attention and Proficiency at Terminal Examinations:* C. Anderson, D. C. J. Delahoyde, J. Emerson, M. Kearney, T. Knox, E. J. Lawless, C. Maturin, D. Mitchel, F. T. Moore, G. Searanke, H. Wall, H. T. Warnock.

OPENING OF THE MEDICAL SCHOOLS.

The subjoined is a list of the Medical Schools in England and Scotland, with the date of their opening, and the names of the gentlemen appointed to deliver introductory addresses. Where no name is inserted, there is no special introductory lecture.

St. Bartholomew's Hospital—Octobet 1st.
Charing Cross Hospital—Dr. R. D. Powell—October 1st, 4 P.M.
St. George's Hospital—Dr. Dickinson—October 1st, 4 P.M.
Guy's Hospital—Sir William Gull, Bart., M.D.—October 1st, 2 P.M.
King's College—Dr. Ferrier—October 1st, 4 P.M.
London Hospital—Dr. Fenwick—October 1st, 3 P.M.
St. Mary's Hospital—Mr. E. Owen—October 1st, 3.30 P.M.
Middlesex Hospital—Mr. A. Clark—October 1st, 3 P.M.
St. Thomas's Hospital—Mr. Mac Cormac—October 1st, 2 P.M.
University College—Dr. Roberts—October 1st, 3 P.M.
Westminster Hospital—Dr. Potter—October 1st, 8 P.M.
Bristol Medical School—October 1st.
Birmingham (Queen's College)—October 1st, 3 P.M.
Leeds School of Medicine—Mr. Wheelhouse—October 1st, 4 P.M.
Liverpool Royal Infirmary School of Medicine—Mr. T. S. Walker—October 5th, 3 P.M.
Owens College (Manchester Royal) School of Medicine—Professor Huxley—October 2nd, 3 P.M.
Newcastle College of Medicine—Mr. J. Russell—October 1st, 2 P.M.
Sheffield School of Medicine—Dr. J. C. Hall—October 1st, 4 P.M.
Aberdeen University—October 28th.
Edinburgh University—The Principal—November 3rd, 2 P.M.
Edinburgh School of Medicine—Dr. Balfour—November 3rd, 11 A.M.

Glasgow University—Dr. Simpson—October 27th.
,, Anderson's University—October 28th.

The Dublin Medical Schools open their Dissecting-Rooms on October 1st, but lectures do not begin until the end of the month.

THE Library of the Royal Medical and Chirurgical Society was reopened on Thursday, the 10th instant.

DEATH OF MR. CUTLER.

WE learn with much regret that Mr. Cutler, Consulting Surgeon to St. George's Hospital, died at his residence, New Burlington Street, on Tuesday last, September 7th, in his 78th year. Before his connection with the hospital at Hyde Park Corner, he held the post of Surgeon in the Life Guards. For the last four or five years, his health had been failing; and his friends, Dr. Pitman, Mr. G. D. Pollock, and others were in frequent attendance upon him. He will be missed by a large circle of friends.

MISCELLANEOUS NOTES ON THE MEDICAL SCHOOLS.

PROVISION is being made for dissection in the large metropolitan medical schools. At St. Bartholomew's, there are eight subjects ready, in a patent preservative fluid; at Guy's, there are three; at St. George's, nine.—All the medical schools have cricket and foot-ball clubs; most have rowing clubs; and at some schools there are racquet-courts. The athletic club is well supported at Guy's, St. Bartholomew's, and King's College; the latter is the "champion" hospital this year.

ASSOCIATION INTELLIGENCE.

NORTHERN COUNTIES (SCOTLAND) BRANCH.

THE annual meeting of this Branch will be held in the Royal Hotel, Inverness, on Saturday, September 12th, at 11 A.M. J. J. Ross, Esq., M.D., of Inverness, *President*.

Particulars by circular.

The Council will meet in the same place at 10 A.M.

J. W. NORRIS MACKAY, *Honorary Secretary*.
Elgin, August 25th, 1874.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at the Convalescent Home, Saltburn-by-the-Sea, on Thursday, September 17th, at 1.30 P.M.; Andrew Legat, M.D., *President*.

The following papers have been promised.

1. Dr. H. J. Yeld: The Health and Mortality of Towns and Villages, as affected by Sanitary Legislation.
2. Dr. J. W. Macdonald: Catarrhal Pneumonia.
3. Dr. J. W. Eastwood: Case of Insanity, complicated with partial Paralysis.
4. Mr. J. T. Parkinson: Case of Chronic Bright's Disease of the Kidneys (small contracted variety).
5. Mr. J. T. Parkinson: Case of Paracentesis Thoracis.
6. Dr. G. H. Philipson: Case of Hydatid Disease of the Liver, treated by puncture.

Gentlemen who desire to make communications at the meeting are requested kindly to communicate with the Secretary without delay.

Dinner at the Alexandra Hotel, Saltburn, at 4 P.M. Tickets, exclusive of wine, six shillings.

G. H. PHILIPSON, M.D., *Honorary Secretary*.
Newcastle-upon-Tyne, August 26th, 1874.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE next meeting of the above District will be held at the Maiden's Head Hotel, Uckfield, on Friday, September 25th, at 3 P.M. Mr. HENRY HOLMAN, of East Hoathly, in the Chair.

All members of the South Eastern Branch are entitled to attend and introduce professional friends.

Dinner will be provided at the usual charge of 5s., exclusive of wine.

Notice of intended communications, etc., is requested by the Secretary, on or before Thursday, the 17th instant, in order that they may be inserted in the circular convening the meeting.

THOMAS TROLLOPE, M.D., *Honorary Secretary*.
35, Marina, St. Leonard's-on-Sea, September 8th, 1874.

MIDLAND BRANCH.

A SPECIAL general meeting of the above Branch will be held in the Assembly Rooms, Boston, on Thursday, September 24th, at 4.45 P.M.

Business: To adopt certain rules for the guidance and management of the Branch. A code of rules will be brought before the meeting for discussion by Dr. Morris (Spalding).

Notes on the Therapeutic Action of certain new Anodynes and Hypnotics. By A. Mercer Adam, M.D., Boston.

On Tobacco. By Francis Smith, M.D., Boston.

Cases of Cicatrix after Burns successfully treated: with Photographs. By W. Newman, M.D., Stamford.

Case of Primary Excision of the Elbow-joint. By T. Sympson, Esq., Lincoln.

Dinner at the Peacock Hotel, at 6.45 P.M.

In order to facilitate the arrangements, members intending to be present are requested to give notice to the Honorary Secretary with as little delay as possible.

C. HARRISON, M.D., *Honorary Secretary*.
Lincoln, September 9th, 1874.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETING.

THE members of the South-Eastern Branch will meet at the Granville Hotel, Ramsgate, on September 24th, at 3 o'clock, under the presidency of J. B. THOMSON, Esq. Gentlemen wishing to make communications are requested to write to the Secretary, E. W. Thurston, Esq., Ashford, in order that due notice may be given in the circular.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE next meeting is appointed to be held at St. Bartholomew's Hospital, Rochester, on Friday, September 25th, at 4 P.M.; ADAM RAE MARTIN, Esq., in the Chair.

Dinner will be provided at the Bull Hotel at 6 P.M.

Papers and subjects for discussion:—Modes of Death in Hernia after Operation; Puerperal and Uræmic Convulsions; Provident Dispensaries; Hospital Out-patients; etc.

FREDERICK J. BROWN, M.D., *Honorary Secretary*.
Rochester, September 7th, 1874.

SHROPSHIRE ETHICAL BRANCH.

THE Annual General Meeting will be held at the Lion Hotel, Shrewsbury, on Monday, October 5th, at 1 P.M. The President, W. A. DAVIES, Esq., in the Chair.

Subjects for Discussion.—The Revised Tariff of Medical Fees; The Proposed Tariff of Surgical Charges; The Suggested Preface thereto. Cases and communications by members.

Dinner will be served at 3 P.M., for the convenience of the country members. Tickets, exclusive of wine, 7s. 6d.

Members have the privilege of introducing friends, on transmitting their names to the President.

Chamber Concert Music by a select Band of Musicians, under the leadership of Mr. Appleby of Liverpool, will be provided, as usual.

Gentlemen intending to read papers, etc., will oblige by communicating their titles (for insertion in the 'circular note' of invitation), before the 8th proximo, to

JUKES STYRAP, *Honorary Secretary and Treasurer*.
Shrewsbury, August 31st, 1874.

MEDICAL NEWS.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ASHBOURN UNION, Derbyshire—Medical Officer for the Brassington District: £30 per annum

ATKINSON-MORLEY CONVALESCENT HOSPITAL—Resident Medical Officer: £75 per ann., furnished rooms, and board. Applications, 7th October, to Charles L. Todd, Secretary, St. George's Hospital.

BALLYSHANNON UNION, co. Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ballyshannon Dispensary District: £95 per annum, and fees. Applications, 19th instant, to Robert Reynolds, Honorary Secretary, Mullins, Ballyshannon.

BEDFORD GENERAL INFIRMARY—House-Surgeon: £100 per ann., board, rooms, etc. Applications, 3rd October, to the Chairman of the Weekly Committee.

BIRKENHEAD BOROUGH HOSPITAL—Junior House-Surgeon; £40 per ann. Applications, 15th September, to the Chairman of the Weekly Board.

BLACKBURN AND EAST LANCASHIRE INFIRMARY—House-Surgeon £100 per annum, board, lodging, etc. Applications, 22nd inst., to Joseph Eastwood, Secretary.

BRISTOL GENERAL HOSPITAL—Physician's Assistant: £50 per annum, board, lodging, etc. Applications, 24th inst., to Henry Fox, R.N., Secretary.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon: £80 per annum, board and lodging. Applications, 13th October, to the Secretary.

CATHCART, Renfrewshire—Parochial Medical Officer and Public Vaccinator, and Medical Officer of Health: about £45 per annum. Applications, 19th instant, to John Athya, Chairman, Kirklinton, Langside.

DORSET COUNTY HOSPITAL—House-Surgeon: £70 per annum, with £10 per annum additional as Secretary, apartments and board. Applications, 23rd instant, to C. W. Bingham, Chairman.

GLAMORGAN COUNTY ASYLUM, Bridgend—Assistant Medical Officer: £125 per annum, furnished rooms, board, and washing.

GLENTIES UNION, co. Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Doochary Dispensary District: £100 per annum, and fees. Applications, 14th September, to John O'Donnell, Honorary Secretary, Knockletra, Stranolar.

GLOUCESTER COUNTY PRISON—Surgeon: £175 per annum. Applications, 15th instant, to George Riddiford, Clerk of the Peace, Gloucester.

GOOLE UNION, Yorkshire—Medical Officer for the Swinefleet District.

GREAT NORTHERN HOSPITAL—Physician-Surgeon. Applications, 15th instant, to A. Phillips, Secretary.

HUNTINGDONSHIRE COUNTY HOSPITAL, Huntingdon—Medical Officer. Applications, 15th instant, to R. H. Gatty, Honorary Secretary.

KINGTON UNION, Herefordshire—Medical Officer and Public Vaccinator for the Eardisley District: £20 per annum, and fees. Applications, 18th instant, to Anthony Temple, Clerk.

LANGPORT UNION, Somersetshire—Medical Officer and Public Vaccinator for No. 1a District: £80 per annum, and fees. Applications, 22nd instant, to J. F. H. Warren, Clerk.

LIVERPOOL DISPENSARIES—Hon. Medical Officer to the North Dispensary. Two Assistant House-Surgeons: £108 per annum, increasing to £128, furnished apartments, etc. Applications, 23rd instant, to Wm. Lister, Secretary, Moorfields, Liverpool.

NARBERTH UNION, Pembrokeshire—Medical Officer for the No. 2 or Begelly District: £35 per annum, and fees. Applications, 19th instant, to John Thomas, Clerk.

NEWCASTLE-ON-TYNE INFIRMARY—Senior House-Surgeon, and Junior House-Surgeon, if present one should be appointed Senior. Applications, 15th instant, to R. Y. Green, Secretary.

NEWPORT UNION, co. Mayo—Medical Officers for the Ballycroy and Achill Dispensary Districts: £100 per annum, each. Applications, 15th instant, to John Carr, Honorary Secretary, Mweelan, Achill.

NORTHAMPTON FRIENDLY SOCIETIES MEDICAL INSTITUTE—Assistant Medical Officer: £100 per annum. Applications, to George Knight, Secretary, 22, Cromwell Street, Northampton.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—House-Physician: £80 per annum.

ROYAL UNITED HOSPITAL, Bath—House-Surgeon, £60 per annum, board, and residence. Applications, 21st instant, to W. L. Saunder, Secretary.

ST. GEORGE'S HOSPITAL—Visiting Apothecary. Applications, 14th October, to C. L. Todd, Secretary.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Out-door Dispenser: £75 per annum to commence. Applications to Dr. J. C. Hall, Honorary Secretary.

SOUTHPORT CONVALESCENT HOSPITAL—Resident Medical Officer and Superintendent: £80 per annum, rising to £100, board, lodging, etc. Applications, 21st instant, to the Chairman.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Manchester—Medical Officer to attend patients at their homes: £60 per annum, board, and residence. Applications, 2nd October, to Joseph Barber, Secretary.

STOCKPORT URBAN SANITARY DISTRICT—Medical Officer of Health and Public Analyst: £150 for one year, office, and stationery. Applications, 14th instant, to Walter Hyde, Town Clerk.

SUNDERLAND and BISHOPWEARMOUTH INFIRMARY and DISPENSARY—Junior House-Surgeon: £60 for first year, yearly increase of £10, board and residence. Applications, 24th instant, to J. Kitto, Secretary.

THREE COUNTIES' LUNATIC ASYLUM, Arlesey—Resident Medical Superintendent: £600 per annum, furnished house, etc. Applications, 21st inst., to F. G. Butler, Clerk to Committee of Visitors, St Neots, Hunts.

TOXTETH PARK, Liverpool—Assistant Medical Officer to the Workhouse and Infirmary: £100 per annum, rations, and apartments. Applications, 16th inst., to J. Moulding, Clerk, 15, High Park Street, Liverpool.

TWICKENHAM URBAN SANITARY DISTRICT—Medical Officer of Health: £50 per annum, for three years. Applications, 23rd inst., to W. Ruston, Clerk.

WESTMEATH COUNTY INFIRMARY—Medical Officer. Applications, 17th instant, to J. Swift, Treasurer.

WOODBRIDGE UNION—Medical Officer for the Walton District: £62 10s. per annum, and fees. Applications, 17th instant, to Benjamin Moulton, Clerk.

YORKSHIRE LUNATIC ASYLUM—Resident Medical Superintendent: £300 per annum, house-rent and taxes free; coals, gas, vegetables, milk, and washing provided; £150 will be expended on substantial furniture. Applications, 19th instant, to the Committee, under cover to R. D. Horne, Clerk.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

GORNALL.—On August 25th, at Friars Green House, Warrington, the wife of *John H. Gornall, Esq., Surgeon, of a son.

MOORE.—On September 7th, at Hales Street, Coventry, the wife of *Milner Moore, L.R.C.P., of a daughter.

MARRIAGES.

EDIS—MURRAY.—On September 9th, at 35, Belmont Street, Aberdeen, *Arthur Wellesley Edis, M.D., of 22, Wimpole Street, Cavendish Square, London, to Mary, youngest daughter of Andrew Murray, Esq.

THOMPSON—WILCOCKSON.—On September 3rd, at St. Mary's Church, Nottingham, by the Rev. W. Wanstall, M.A., Joseph Thompson, Esq., Surgeon, to Edith Maria, eldest daughter of W. H. Wilcockson, Esq., the Bank, Nottingham.—No cards. At home September 28th and 29th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

L. M. D.—Coxeter, Grafton Street East, W.C.

MARE.—Every person who is to be carried as medical practitioner in a passenger-ship must be registered as a physician, surgeon, or apothecary; except in the case of a foreign ship, when it is sufficient if he be authorised to practise in the country to which the ship belongs. It would seem from this, that the registered Licence of the Apothecaries' Hall is sufficient.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Sept. 7th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Paget, Cambridge; Dr. Edis, London; Mr. F. Fitch, Kidderminster; Mr. P. C. Shepherd, Lynn; Mr. H. R. Hughes, Bangor; Mr. J. Mackenzie, London; Mr. E. Atkinson, Leeds; Mr. Naylor, London; Mr. Arthur Mawson, York; Dr. J. Smith, St. Helier's; Dr. S. W. Smith, Pershore; Mr. Julian Willis, Micheldever; Dr. Bradbury, Broadstairs; Dr. Henry Harris, Redruth; Mr. H. J. Lloyd, Barmouth; Messrs. Angell and Hehner, Ventnor; Dr. Tyndall Watson, Tottenham; Mr. John Bennett, Dublin; Mr. M. Coates, Bristol; Dr. William Frank-Smith, Sheffield; A. B.; Mr. W. H. Dixon, Sunderland; Mr. W. Fairlie Clarke, London; Mr. A. Lea, London; Dr. Bradbury, Cambridge; Dr. George Johnson, London; Mr. Spurgin, Maryport; Dr. J. C. Murray, Newcastle-upon-Tyne; Mr. H. Caddy, Liverpool; Medicus; Dr. F. J. Brown, Rochester; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Heath, Colchester; Mr. Druce, Oxford; Our Dublin Correspondent; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. John Brickwell, Sawbridgeworth; Mr. A. Nunneley, Leeds; Mr. N. A. Humphreys, London; Dr. E. R. Tenison, Shepherd's Bush; Messrs. Samsen and Wallin, Stockholm; Mr. Heward, Stamford; Mr. Stainton Stanley, Wellow, Bath; Mr. Dexter, London: Mr. Jolliffe Tufnell, Dublin; Mr. Batchelor, Stratford St. Mary; Mr. M. Brown, Dorchester: Mr. H. Greenway, Plymouth; Mr. Pippetts, Salisbury; Mr. L. Armstrong, Newton Abbott; An Old Associate, Liverpool; Mr. H. Page, Redditch; H. C. L.; Dr. Jukes Styrap, Shrewsbury; Dr. Grimshaw, Dublin; Mr. W. W. Wagstaffe, London; Mrs. Monckton, Hurstpierpoint; Our Dublin Correspondent; Dr. Trollope, St. Leonards-on-Sea; etc.

NOTES OF EXPERIENCES IN EGYPT.

By W. H. FLOWER, F.R.S.,

Hunterian Professor of Comparative Anatomy in the Royal College of Surgeons of England, etc.

I.—The Journey.

While it is the law with many species of animals to be stationary in one locality throughout their lives, or at least to make no regular movements in accordance with the changes of season, a large number belonging to many different classes avail themselves of their powers of locomotion to pass periodically from one region of the earth's surface to another, and thereby to save themselves from the extreme variations of external conditions to which the more stationary forms are exposed.

It is the privilege of man to be able, partly by his natural constitution, but greatly by the aid of the well-known means and appliances which his superior intellect teaches him to use, to be able to pass his life with almost equal efficiency under great extremes and variations of climatal conditions. But a further privilege, which has only become practically available to any great extent within the last few years, is that of being also able to imitate the regular movements of the migratory creatures, and to enjoy at all times of the year the advantages of the climate which suits him best, without any of the serious dislocation of occupations and social relations as must have been occasioned in past centuries.

The habits of a considerable portion of the population will doubtless gradually change with the wonderfully increasing facilities for travelling. Regular seasonal migrations will become more and more the rule. As health will be in a large number of cases the mainspring of these migrations, temporary change of climate, of habits of life, or diet and general surroundings, forming most important additions to our hygienic resources, are subjects well befitting the attention of the medical profession. They are such potent influences for good or ill, according as they are judiciously applied, that the responsibility is very great in recommending their trial. Leaving home for an entire winter often involves such large considerations, the breaking up of family life, interruption of duties, business sacrifices either temporary or perhaps permanent, and great expenses, that in many cases it cannot be advised lightly; and in all cases the most favourable circumstances as to locality and mode of life most suitable for the particular condition of the patient must be sought for.

Knowing the difficulties in deciding upon the advisability of a change of residence, and in the choice of a suitable place, especially as from the very nature of their avocations most practising medical men can have little or no personal knowledge to guide them, I venture to offer these slight remarks, derived from recent experience of a winter migration to a sunny land.

It is not my intention to give a scientific account of the diseases prevalent in Egypt, or of the remedial effects of the climate on ailments contracted in other lands; neither my professional knowledge nor my limited opportunities would enable me to do so, and they are well described in several special works.[*] Nor do I propose to trespass upon the field of the descriptive traveller, or of the regular guide-book, but merely to supply some information, derived from personal experience, upon certain points of practical interest to those who either think of going themselves, or are advising others to do so; such as the method of reaching the country, and the mode of life, accommodation, and resources for invalids and their companions when there. Such subjects must enter largely into consideration when deciding upon going; and hints upon them may tend to increase the comfort and advantage of a stay in the country, more especially as in many respects Egyptian life and travel are at present something different from those of any part of Europe. It must, moreover, be particularly understood that my remarks on many subjects only apply to the present time. Probably no country in the world (unless it be Japan) is undergoing such rapid changes as Egypt, under the restless activity of the present despotic ruler. Hence works on Egyptian travel of a very few years ago are as entirely obsolete as regards information on other points than the physical characters of the country and the grand historic monuments, as those written now will probably be in a very short time to come.

I need hardly say that the only time of the year when an Englishman would think of visiting Egypt for the sake of health would be the winter months, from the middle of November to the beginning of April. During this period the climate, as will be more particularly described further on, is admitted on all hands to be the finest in the world. Doubtless there are many Europeans who do live all the year through at Alexandria, and even Cairo, with perfect impunity; but few, unless compelled by business or necessity, would choose to do so.

It being then in contemplation to spend part or all of the winter in Egypt, the first question which will naturally be asked is, how to get there.

Notwithstanding all the recent improvements in the means of communication, the distance will be to many a serious obstacle to undertaking the journey. On the other hand, to some to whom travelling is in itself a pleasure and a refreshment, it will be an additional inducement, more especially as the most direct route lies through that paradise of travellers—Italy. A perfectly straight line drawn on a map between London and Alexandria, will be seen to pass through the whole of the Italian peninsula from north to south; and, by taking this way, the sea-voyage is reduced to its shortest. There are two ports near the south of Italy from which there is regular steam communication with Egypt; Brindisi, the nearest, being only three days' voyage, and Naples, one day longer. The easiest way to reach these ports from England is through Paris, Macon, the Mont Cenis Tunnel, Turin, and Bologna, thence direct to Brindisi; or by Florence and Rome to Naples. I would recommend the former route for going out, and the latter for returning.

To those to whom it is not a great object to avoid every unnecessary day on board ship, there are other routes. 1. The Peninsular and Oriental boats, which call at Brindisi on Monday, start the Friday before from Venice. As they take passengers for the same fare from either port, this route effects a considerable saving in expense, and avoids a long railway journey. Its comparative advantage depends upon the weather to be met with in the Adriatic, which unfortunately cannot be ascertained beforehand. We went this way, and repented having done so, neither my wife nor I happening to enjoy life on board-ship in such stormy weather as was encountered in the voyage last November. 2. The French Messagerie boats which call at Naples, sail from Marseilles, thus greatly shortening the railway, and proportionately increasing the sea part of the journey (to about a week), but, on the whole, it is a tolerably direct route from London. 3. Then there are Italian boats from Genoa, and Austrian boats from Trieste; and, lastly, is the long sea-voyage of thirteen days by Peninsular and Oriental boats from Southampton to Alexandria,[*] by way of the Bay of Biscay, Gibraltar, and Malta, which by many is recommended in preference to all the others, as avoiding the trouble and fatigue of frequent changes, railway travelling, the constant packing and unpacking, difficulties at custom-houses, and the chance of bad accommodation and unwholesome living at hotels.[†]

A sea-voyage, varying in length, according to the route chosen, from three to thirteen days, is then necessary in order to arrive in Egypt; and this leads me to say a few words on voyages in general, especially as applied to invalids in search of health. For a medical man, in recommending a patient to take a voyage, should have a thorough knowledge of what is often really entailed by his advice. Even one's own personal experience, unless very recent, is scarcely to be trusted on such a subject; for we are most of us so happily constituted, that the remembrance of the disagreeables and troubles of travel, as of many other circumstances of life, soon pass away, and the more enjoyable portions of our experience alone remain distinctly painted on our memory.

The first question that arises, in considering for oneself or others whether a sea-voyage should be undertaken is, Are you what is commonly called a "good sailor"? In the case of one of those very fortunate individuals whose physical well-being is unaffected by the motion of a ship at sea, the question loses a large portion of its significance; but the majority are not so constituted, and suffer more or less severely from this cause. It is strange how little sympathy these sufferings seem to excite from those who do not experience them; and yet they are very real, and, in delicate persons, if long continued, they do exert a very prejudicial effect upon the general health. It is hardly necessary to observe that all the hitherto proposed remedies for sea-sickness are absolutely futile.

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[*] See Scoresby-Jackson's *Medical Climatology*: and the special works of Schnepf, Pruner, Godard, Dalrymple, Patterson, Dunbar Walker, and Dr. Grant's notices in Murray's *Handbook of Egypt*.

[*] During the coming season, the Southampton boats will run through the Canal to India, without calling at Alexandria. Passengers for Cairo will be landed at Port Said or Ismailia.

[†] Thus Dr. Dunbar Walker, after beginning by saying, "a sea-voyage, and one, perhaps, of a fortnight in length, is a journey full of evil, accompanied by all that can make life miserable to the majority of Britishers", strongly recommends this route in preference to all others; advice tantamount, one might think, to prohibiting the journey to Egypt altogether. It should be remembered that the above mentioned drawbacks to land travelling can be reduced to a minimum by a careful choice of route and of stopping-places, and especially by taking plenty of time over the journey.

The principal objection to persons in delicate health undertaking a long sea-voyage, is the uncertainty about the influences to which he or she may be exposed; while on land, the traveller is to a great extent his own master, and has power to control the surrounding conditions. He may regulate the day's journey, according to strength or inclination; he may linger in such places as have agreeable associations and environments, he may hasten over those that are of an opposite character. But when once embarked upon a voyage, whether he find himself crowded in a dark, close cabin, with two or three uncongenial companions, lying on a narrow hard shelf, portholes rigidly closed, and the atmosphere he breathes poisoned by noisome odours, of which the sickening smell of the oil of the engine is one of the least objectionable; the rain pouring on deck, making escape from his prison, even for a few moments, impossible; when he feels that he would give all his worldly possessions for a breath of pure air, or a few hours' cessation from the perpetual din of the engines within and the waves without; he is perfectly helpless, he must go through it day after day and night after night, until the weather changes or the voyage is ended.

Doubtless may be made voyages under favourable circumstances; the weather may be fine, the ship not crowded, the cabin comfortable, the companions pleasant; but the risk and uncertainty of what is before him, the chance of being exposed to such depressing influences as must seriously affect the health, should make an invalid hesitate before venturing on a longer voyage than is absolutely necessary. Of one unfavourable condition, any one going out to Egypt or returning at the usual time, may be pretty sure; that is, excessive crowding of the vessels, it being just the season of the rush of travellers to and from India and all parts of the East; and passengers who make the whole journey have naturally much greater advantages in choice of cabins and other accommodation, than those who are only picked up by the way.

Great attention is now paid to the ventilation of our hospitals, workhouses, and even the dwellings of the poorest classes, but that of our largest and best appointed passenger-ships is still in a most neglected state. Except in hot climates, below deck it is always a choice between breathing very cold or very vitiated air, and the difference of taste between different passengers on this subject, gives rise to continual disagreements. It is strange to find how the majority still generally prefer the latter alternative. It should be known that passengers, especially delicate ladies travelling for health, who wish to spend as much time as possible on deck, must be at the trouble and expense of taking their own easy chairs with them. It is difficult to see why the decks of first class ships like those of the Peninsular and Oriental Company, should not be provided with iron or wooden benches made in an easy curve, like those now in general use in our parks and public gardens.

A special objection to returning by the Southampton route to most invalids, especially those suffering from pulmonary complaints, is that the time consumed in the transit from Egypt to England is too short. It is not desirable to stay longer in the former country than the beginning or middle of April, as the heat by that time often becomes great, and has a very relaxing effect on delicate constitutions; and the almost sudden change to the intense cold of the Atlantic, and the rigours of an English May, such for instance as the last, may undo all the good that has been gained during the winter. It is, therefore, generally recommended, with reason, after leaving Egypt, to spend a few weeks either in Syria, Greece, or Italy, and so to pass gradually and insensibly between the two very similar temperatures of an Egyptian March and an English June.

II.—ALEXANDRIA.

We arrived off Alexandria on the afternoon of Thursday, November 20th. So low is the land of the Egyptian delta, that the first visible sign of the African coast is the tall lighthouse, looking in the distance like a stick standing up in the water. It was a welcome sight, but we were soon afterwards doomed to disappointment. It was a race between the ship and the sun. If the latter sank below the horizon before we arrived at the entrance of the harbour, there was no entering that night. The ship lost by a quarter of an hour. It was blowing hard, but there was nothing for it but to turn her head to sea again, and we had to submit to another night in our close cabins, the port-holes of which had not been once opened since we left Brindisi.

Our first anxiety on arriving at Alexandria harbour on the following morning, was to find out whether we should be put into quarantine, as we knew had been the case with the passengers of several previous ships. Cholera was still reported in some parts of Italy, although all were healthy on board; and that evidently caused some consternation to the Egyptian officials. After some manœuvres very amusing to witness, and a quasi-medical inspection, we were let off more easily than we had anticipated. The passengers bound for India (more than two-thirds of our number) were allowed to proceed to Suez in a quarantine train, which was supposed to be isolated from the population of the land through which it travelled by a variety of curious precautions, and the remainder of us were allowed to expiate the forty-eight hours to which we were sentenced on board the comparatively empty ship in the smooth water of the harbour. Being in no particular hurry, we were really not sorry to have time to recover the effects of the previous week. Everything goes by comparison; and the feeling of having escaped the disagreeables of the stormy sea on the one hand, and the dreaded week or ten days in the lazaretto on the other, made our enforced sojourn in Alexandria harbour a period of rest, enjoyment, and preparation for continuing our travels by land.

The lazaretto in which passengers in quarantine are usually imprisoned is a large barrack-like building a short distance outside the town. The accounts of those who had had experience of its internal arrangements varied much; but I gathered that, on the whole, there is not much now to complain of in the way of cleanliness, living, etc., as it is managed by the proprietor of one of the large Alexandria hotels, and on much the same principle. The great objection to being sent there would, of course, be the confinement and loss of time to those who are limited in the latter respect.

The town of Alexandria has been too often described to make it necessary for me to say anything further about it. After the world-renowned relics of antiquity, Pompey's pillar and Cleopatra's needle, the principal charms of the place to us were the beautiful gardens in the outskirts, especially that belonging to the Khedive, situated on the bank of the Mahmoodah canal. Here were seen stately palms with their rich clusters of purple and yellow dates, spreading banyan trees, brilliant poinsettias, and all the luxuriance of tropical vegetation.

Alexandria has no reputation as a health-resort. It is surrounded on the land side by marshes; its climate in winter is variable, and often cold from the prevalence of north wind, and it is subject to violent storms of rain, which convert the streets into rivers of liquid mud.

The hotel generally esteemed the first, *i.e.*, the largest and dearest, is the Hôtel de l'Europe, situated in the great square, where also is the Hôtel de l'Orient; but Abbât's, a little higher in the town, is now much resorted to by English travellers, as it has the advantage of being somewhat less expensive, and is not inferior in comfort and cleanliness. English ladies going for the first time to the East must be prepared for finding no female attendants of any kind whatever in any of the hotels in the country; the waiters are Italians, Greeks, Germans, or French, the bedroom servants Arabs; so, if they be delicate and likely to require attendance in their bedrooms, they will do well to take a maid with them, though certainly many ladies accustomed to travelling and to help themselves do contrive to get on in Egypt without this often troublesome appendage.

The system of living at all the hotels in Egypt is the same; a fixed charge per day for bedroom and meals, including lights and attendance. A separate sitting-room is always an extra, and generally an expensive one. The meals included in the general charge are—breakfast, any time between seven and ten, consisting of coffee or tea, bread, butter, eggs, preserves, or honey; a very ample lunch or *déjeûner à la fourchette*, at noon or half-past, consisting of a considerable variety of well-cooked dishes, followed by fruit; and an abundant *table d'hôte* dinner at half-past six. After lunch and dinner, a small cup of thick Arab coffee, or sometimes French *café noir*, is always served. Wines, beer, mineral waters, etc., are extras, and dear; the lowest price for French vin ordinaire being four shillings a bottle in all the hotels of Alexandria and Cairo. The daily charge is the same, whether one partake of the meals or not; and, according to the published tariff, meals served at irregular times or in the bedroom are charged extra, though we never found this insisted on in the case of illness. The charge at Abbât's Hotel is twelve shillings per day; at the other two, sixteen shillings, as at the large hotels at Cairo. No difference is made whether the worst or the best bedroom in the house be occupied, the choice of rooms being given to the first comers. If the visitor stay long, he can improve his quarters by watching for rooms as they become vacant. But, more on this subject when we come to Cairo.

At Alexandria, some of the historical "plagues" of Egypt will be met with in full force. Mosquitoes and fleas both abound, the former, perhaps, on the whole, the most troublesome, but that depends much upon individual constitution. There are very few, except the thoroughly acclimatised inhabitants, to whom the bite of a mosquito does not produce more or less annoyance, while many persons enjoy perfect immunity from fleas. After much experience of the vaunted "insecticides", Persian powder, pyrethrum root, camphor, etc., I have come to the conclusion that there is very little good to be derived from them. Fleas in the East live in the dusty floors more than in the beds; the only remedy is diligently to hunt for and destroy the enemy the moment his first attack is felt, an operation which unfortunately consumes a great deal of time.

With regard to mosquitoes, in the day time one must keep a sharp look out upon the hands and face, and at night trust to curtains, without which it would be impossible to sleep anywhere in Lower Egypt. Fortunately, they are provided in all the good hotels. The interior must be thoroughly searched before retiring to bed, and all intruders expelled, at whatever sacrifice of time and trouble, and then the curtains carefully tucked in on all sides. It is often an annoying thing, when going to bed thoroughly tired from a hard day's work, to have to spend half an hour or more in hunting a little active winged wretch, which seems to have the power of rendering itself invisible the moment it appears within grasp; but to be shut up for the night in close quarters with a hungry mosquito entails worse consequences. The satisfaction of an easy, though not bloodless, victory over the gorged and lazy adversary next morning is no compensation for the number of times one has been awakened by his shrill trumpet blown as if in derision in one's ears and for half a dozen stings on the face and hands. With respect to the treatment of these stings, there is only one golden rule to be followed—do not rub them or scratch them, otherwise whatever suffering they may entail will be doubled or trebled. The usual applications of salvolatile, eau de Cologne, etc., appear to have but little real efficacy; nearly all the serious results are from stings which have been inflamed by rubbing or scratching. While on the subject of mosquitoes, it will be well to mention that, though common at Alexandria and Cairo all the year round, they are happily quite unknown on the Nile a few days' journey above the latter place, and even fleas diminish the higher the river is ascended, and in Nubia are no longer met with.

It is a good plan to have a square yard of fine white net while travelling in Egypt. It will be useful to have in bed to throw over the face in case of a mosquito surreptitiously invading the guarded precincts during the night, if one be indisposed for the more radical method of a hunt, and also for a protection against flies during an afternoon siesta.

A few miles to the east of Alexandria, is a strip of land lying along the Mediterranean coast raised above the general level of the delta, which, being formed of calcareous rocks and covered with sand, partakes of the physical characters of the desert. It is, therefore, reputed to be superior in salubrity either to Alexandria itself, or any other part of the neighbourhood. Here, most of the European residents of Alexandria have built villas to live in during the hot season; and there is a quiet family hotel called "Beau Séjour", which must be preferable to those in the town for any visitors under the necessity of remaining long in this locality. There is a railway from Alexandria, about five miles in length, with several stations at different parts of *Ramlé*,[*] as this suburb is called. The station at Alexandria is close to Cleopatra's needle, and at the opposite end of the town from the main station for Cairo and Suez.

[*To be continued*]

CASE OF MEDIASTINAL SARCOMA, BLOODY PLEURISY, ETC.; PARACENTESIS THORACIS: DEATH: NECROPSY.[†]

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THE following case appears to me worthy of record, in connection with Dr. Allbutt's case published in the JOURNAL for September 5th, and those of Kussmaul, abstracted in the *London Medical Record* for December 17th, 1873.

C. F., aged 22, single, by occupation a labourer, was admitted into Addenbrooke's Hospital on April 9th, 1873, under my care. The family history was good; his parents, and one sister and two brothers, being alive and well. The patient had small-pox at the age of fifteen, and scarlatina at seventeen. He had never had ague. For the last seven years, he had had a winter-cough. His habits had been temperate. His present illness began nine weeks before his admission (three days after getting very wet) with shivering, darting pains in the lower part of the chest, much increased by movement, pressure, deep breathing, or coughing, and a cough, with expectoration of clear frothy sputa, and shortness of breath.

Three weeks after his illness commenced, he noticed a swelling on the left side, just below the ribs in front; and in this situation a blister had been applied. After a week, the pains in the chest left him; but the swelling continued to increase. From the beginning of his illness, he had been losing flesh; and for several weeks past he had been perspiring much in the early morning. He had never expectorated blood.

The patient, on admission, was pale and somewhat emaciated. He complained of cough and difficulty of breathing. There were purpuric spots over the arms, etc. The breathing was abdominal, and the whole thorax moved together. The patient made marked use of the scaleni and other extraordinary muscles of respiration. There was orthopnœa. The chest was barrel-shaped. A hard body could be felt in the left hypochondriac region, which was diagnosed as an enlarged spleen. On the right side anteriorly, the percussion-note was tympanitic to the third rib when the patient was sitting up, but dull over the same area when lying down. From the third rib downwards, there was dulness. Rhonchus and sibilus were heard over the upper part of this area, and distant breathing below. The voice was tremulous in the lower part. On the left side in front, there was rhonchus; and in the lower part also sibilus, chiefly heard with expiration. There was dulness on percussion over the lower part of the thorax in front. On the right side posteriorly, rhonchus and sibilus were heard all over. From the angle of the scapula downwards, the breathing was distant. The voice was tremulous, if not ægophonic. There was dulness all over the right side behind. On the left side posteriorly, there was dulness in the lower part, but comparative resonance above. The vocal resonance and fremitus were greater on the left side than on the right. In no part of the chest could any pure vesicular breathing be heard. The heart's sounds were normal. The urine contained no albumen. The bowels acted daily. The tongue was thinly furred, and the appetite was fair. The temperature was 98 deg. Fahr. He was placed on a meat-diet, and ordered thrice daily a draught containing fifteen grains of nitrate of potash, half a drachm of oxymel scillæ, and the same quantity of tincture of senega, in an ounce of camphor-water.

April 10th. As the patient was very dirty, a warm bath was ordered. This was given at 1.45 P.M., at temperature of 90 deg. Fahr. The patient, after being in the bath about ten minutes, was attacked with urgent dyspnœa, and could only breathe in the upright position. He was ordered, at 7 P.M., a draught containing carbonate of ammonia and ipecacuanha wine; and at 11.30 he was breathing much more easily, and lying on the right side. Temperature 98.4 deg. Fahr.

April 11th. He passed a restless night, the cough being very troublesome. He talked a great deal in his sleep. The breathing was quite as easy as on previous nights lately. The expectoration was rather more copious. Temperature 97.8 deg. Fahr. Measurement of chest: at nipple, 34¼ inches; left side, 17¼ inches; at lower part of sternum, 34½ inches; left side, 16¾ inches; 2½ inches below the nipple, 34½ inches; left side, 17¼ inches.

April 12th. He was slightly delirious at times in the night, and very restless. Evening temperature 99 deg. Fahr.

April 13th. He was delirious during the night. He lay on his right side always. The tympanitic note on percussion had disappeared from the upper part of the right side of the chest in front when the patient was sitting up in bed. Morning temperature 98.8 deg. Fahr. At 10.30 A.M., paracentesis thoracis was performed by Dr. Humphry, at my request. The aspirator was used, and five pints of sanguinolent fluid were drawn off. The cannula, which was about one-twefth of an inch in diameter, was introduced just below and behind the inferior angle of the scapula. During the tapping, especially towards the end of the operation, the patient had violent fits of coughing. A large quantity of air or gas of some kind was mixed up with the fluid withdrawn. The fluid was semiopaque, and of a reddish-brown colour; it became almost solid on the addition of nitric acid; and was found, on microscopical examination, to contain a great number of red blood-corpuscles. The fluid was alkaline, and its specific gravity 1017. The patient was ordered thrice daily a draught containing carbonate of ammonia, spirit of chloroform, and tincture of senega. At 6 P.M., he was lying on his left side. Vocal resonance and vocal fremitus were heard on the left side quite distinctly. The vesicular breathing (if any) was masked by friction-sound and sibilus. During the afternoon, he slept, but was delirious. Respirations 48 in the minute. At 5.30, he had a very severe fit of coughing, the only bad attack since the tapping.—8.30 P.M. Pulse 123. He was breathing comfortably. Temperature 101 deg. Fahr. At 11 P.M., the pulse was 106; respirations 36. He had not coughed much since 5.30 P.M. He stated that he had breathed much more comfortably since the tapping. He seemed restless, and for the last two hours had been at times delirious.

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[*] Arabic for "sand".

[†] Read before the Cambridge and Huntingdon Branch.

April 14th, 7.30 A.M. There was great dyspnœa. The pulse could scarcely be felt. He had slight perspiration on the forehead. He complained of most intense pain in the left side. Temperature 100.2 deg. Fahr. At 7.45 A.M., he took half an ounce of brandy. The pulse-beat soon became more distinct, but could not be counted. He still complained of an agonising pain in the chest. At 8.15 A.M., he breathed more easily, and could now lie on his right side. There was much perspiration on the forehead. The pain was still severe, but less so than half an hour ago. One-sixth of a grain of hydrochlorate of morphia was injected subcutaneously. The pulse could scarcely be felt. He took three teaspoonfuls of brandy. At 9.15, he had slept since the morphia-injection. His face was covered with perspiration. The man's breathing became irregular and spasmodic, and at about a quarter to ten o'clock he died.

NECROPSY.—On introducing a knife to cut through the right costal cartilages, fluid was poured out similar to that drawn off by the aspirator; and, on removing the sternum with the costal cartilages attached, the right pleura was found to contain six pints of fluid, and the lung was forced back against the spinal column. The sternum was firmly adherent to the anterior mediastinal tissue. This tissue was hard, and the cut surface was bathed with a clear watery fluid. In some parts, the tissue had the appearance of dense fatty tissue, and in others it was mottled and of a brownish-red colour. To this the pericardium also was closely adherent; the outline, however, being quite distinct. The tissue was about an inch and a half in thickness, and extended above the pericardium to near the top of the sternum. A similar condition was found in the posterior mediastinum; the tissue here, however, was about an inch in thickness, and matted together the pericardium, œsophagus, and aorta to the spinal column. The microscopic appearance of the growth corresponds very closely with that described by Dr. Allbutt. It was not unlike that of young connective tissue, as my friend Mr. Annington, who examined the specimen very carefully, justly observed. The right pleura was opaque, thick, and the surface uneven from old inflammatory material; but there was no recent lymph. On the left side, some recent lymph was observed, and especially on the diaphragmatic surface, corresponding in position to the part where the friction-sound was heard. In other respects, it resembled the right pleura in appearance. On the surface of the pleuræ, especially of the right side, spots of extravasation were noticed. The pericardium was pale, thickened, and corrugated; but there was no indication of recent inflammation. The lungs themselves were healthy. A few patches, looking like atheroma, were seen on the first part of the aorta; and in this situation, and in the heart itself, there was marked *post mortem* staining. The spleen was much enlarged, weighing 17½ ounces. The mesenteric glands were large. Peyer's patches were healthy. There were marked congestion and extravasation in the mucous membrane of the small intestines.

ON THE ALLEGED DANGERS OF DENTITION, AND THE PRACTICE OF LANCING THE GUMS.

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THE question as to the relation which the process of teething bears to infantile disease is of practical as well as of scientific importance. If (as one says) "there is scarcely any affection we do not meet with in one case or other of difficult dentition", it must lie at the very root of the study of the diseases of children. If, as alleged by another, "there never is, and never has been since the world began, any such disease", the other view must stand very much in the way of all true diagnosis. Nor is it merely diagnosis that is involved. Treatment must also vary; and so we find that the operation of lancing the gums is regarded by one as "an all-important remedy", and that he recommends us to "lance the gums *freely and deeply* over the greater part of their extent *daily*, or *even twice a day*"; while another, "convinced from experience of its futility", has "avoided making it a source of revenue". Such statements represent the two extremes, and nearly all intermediate degrees of opinion may be found to exist among ourselves at the present time. It has appeared to me, from personal observation, that exaggerated and superstitious ideas regarding the potency of dentition as a cause of disease are injurious to the study of this branch of medicine, and no less pernicious in their practical operation in the treatment of children. As, however, such opinions prevail in the profession as well as amongst the public, it was thought that an investigation of the doctrine of teething, at different times and in different countries, might throw some light on current ideas. I must, however, pass over much of the inquiry on this occasion.

While some writers seem to see in the local process of dentition an event fraught with danger to the general health and the whole economy of the child, others have regarded the irregularities and peculiarities of dentition rather as manifestations of the general condition of the infant, and have looked upon most of the disasters overtaking infants during the teething period as due to faulty management, to bad nutrition, or to some defect in their own constitution or in that of their nurses, when they were not to be regarded in the light of simple coincidences.

The relationship existing between the quality of the milk and the earliness (and presumably the facility) of dentition, was referred to by Aristotle in two separate passages, and it is probable that it was never altogether lost sight of by subsequent writers. The phenomena of dentition, however, are so striking, and the importance of the teeth for the future life of the infant so obvious, that we need not wonder that great weight was attached to the local process. But, important as this process without doubt was, some physicians began to see that it was but one of a multitude of changes occurring simultaneously in the history of the child, and that many morbid phenomena popularly ascribed to teething could with greater propriety be referred to the other systems more directly concerned. Billard refers the attacks of diarrhœa, so common in children during the teething period, to the development of the intestinal follicles and of the other parts of the digestive system occurring at this epoch. He likewise points out that important changes take place in the brain of the child during the first year of its existence; and he maintains that the frequency of cerebral affections at that age ought to be attributed to these changes; this period, however, is the same as that of the appearance of the first few teeth, and, as the changes in the mouth are much more obvious than those in the brain, they have received the credit of producing the convulsive and other cerebral disorders of infancy. Armstrong also seems to have had some doubts about referring the convulsions of children during the period of dentition to this cause, alleging that convulsions occurred before and after the usual periods of cutting the teeth, and that these fits were of the same character as those which happened during the process. But from what age may symptoms fairly be referred to dentition? The earlier authors seem to have contented themselves with regarding the date at which the teeth usually appear, as the date also of the symptoms referable to this cause; in this view, the seventh month may be named. Soranus suggests that means of mollifying the gums may be commenced about the fifth month, so as to anticipate the dangers of the seventh. But physicians could not forget that symptoms almost precisely the same as those usually attributed to teething were frequently observed before the time for the appearance of the teeth had arrived, and that these symptoms, at whatever age, frequently appeared and subsided without any fresh tooth coming to the surface. To account for such cases, the theory was started that one set of symptoms might be due to the deeper processes of teething—"to the opening of the jaw by the tooth", as Sydenham called it—and another set to the piercing of the gums. This double set of dangers for every one of the twenty milk-teeth affords sufficient scope for the physician to set down any illness he may please during this period as coincident with and dependent on the process of dentition. Accordingly, we find that one writer is convinced of the error of waiting till the sixth month before attributing infantile diseases to teething; another authority begins to suspect teething as the cause of illness after the child has reached his fourth month; a third somewhat arbitrarily assigns the date of birth as the beginning of the troubles of dentition, while Hunter states somewhat vaguely that dentition "is a disease of early age, and, indeed, almost begins with life". It is rather surprising that no writer (so far as I have noticed) has sought to connect distinctly congenital disorders, such as club-foot, with the development of the fœtal teeth. It is evident that to date teething from birth, as Marshall Hall does, is very arbitrary; and the congenital club-foot may surely with as much reason be referred to the irritation of teething as the similar deformity which results from the so-called "dental paralysis" affecting young children.

With an available range of time, extending almost from the beginning of life up to the completion of dentition, it is evident that it must depend very much on the preconceptions of the physician, as to which, if any, of the numerous ailments of infancy he is entitled to refer to teething. Some, indeed, have sought to substitute for this process other causes nearly equally universal, and they have not found it difficult to refer to them a multitude of diseases usually attributed to dentition. Dr. T. Ballard finds, in the various forms of fruitless sucking, a potent cause of infantile derangement, and it takes the place of dentition so efficiently, that he can make no room for this process in the nosology. Dr. Norton, at the Obstetrical Society, likewise contended that teething ought to be expunged from our list of disorders, and he regarded the evils usually ascribed to dentition as "due to the universal but unphysiological practice of feeding infants on starch food". These two ideas have at least the merit of basing their pathology of infantile disease on some departure from the normal process of nutrition, and if some departure be thus implied, some hope of averting the dangers may confidently be entertained. But there is reason to fear that it is precisely from its fatalistic tendency that the doctrine of teething as a cause of disease is so popular on all hands. If a child die "from its teeth", as is said, it is regarded as having succumbed in the course of a necessary process, for which neither parents nor nurse can be in any way blamed; and, if the doctor have scarified the gums, or ordered whatever is popular at the time, he can join in the self-satisfied lament as if over an inevitable catastrophe.

But, even among those who do not readily wish to acknowledge every illness during the teething period as due to this process, two sets of symptoms deserve special consideration—those which, from their local nature, seem directly related to the teeth, and those which either occur or subside about the time of the appearance of a given tooth. There is a general agreement regarding the possibility of obviously local inflammations being due to dentition; but it is seldom that these can be regarded as so serious as to give rise of themselves to any grave general constitutional disturbance.

With regard to the symptoms of an illness actually concurring with the visible protrusion of the teeth, the possibility of a mere coincidence must be carefully considered. Rilliet and Barthez speak of having seen a difficult dentition concurring so exactly with the development of meningitis, that they were at a loss to know whether the illness were due to a single or to a double cause. They likewise testify to having seen one or several teeth piercing the gum during the course of meningitis, pneumonia, enteritis, and typhoid fever, without difficulty, and equally without any favourable modification of the course of the illness. This leads us to the consideration of the other phenomenon already referred to, which is, perhaps, even more striking to the popular mind; viz., the more or less sudden subsidence of symptoms about the time of the appearance of a tooth. It must be remembered that, although the distinguished authorities just quoted refer to cases in which teething went on in the midst of grave disease, this is not an usual occurrence; the common event is the cutting of a tooth *after* an illness which may, with great propriety, be regarded as having arrested its progress; and this, of course, may lead to the erroneous notion of the illness having been due to the struggles of the tooth to reach the surface. The cases in which certain symptoms recur with the cutting of every tooth, and without any other obvious cause, constitute by far the strongest argument in favour of their depending on dentition; and, when such an occurrence is well marked and carefully observed, it is not easy to overcome the force of its persuasion. Nor, indeed, is it the object of the present paper to deny that any illness is caused by teething. Its purpose will be served if (as Wichmann says) the reader be kept from attributing too much to dentition, remembering that this is not the only source of infantile disorders during the teething period, and searching carefully for other causes before the illness is referred to a physiological process.

The introduction, or at last the spread, of the practice of lancing the gums may be ascribed to Ambrose Paré. His celebrated case was that of the son of the Duke of Nevers. This child died when eight months old, and the dissection was made and recorded by Bonetus. No cause of death was discovered, except a hardness of the gums, and, on these being laid open, the teeth were found ready to appear. From this it was argued that, if this incision had been made during life, the child might have been saved. Such a remarkable inference received, in the course of time, a still more remarkable confirmation. Called to see a child suffering from teething, and hearing of another whose death had just occurred from the same cause, M. le Monnier was anxious to observe the state of the teeth and gums in such a case. He made a large incision into the gums, but his pathological inquiries were arrested by the restoration of the child to life! But, notwithstanding the experience and authority which accumulated in its favour, incision of the gum does not seem always to have been followed either by the appearance of the tooth, or by the cessation of the symptoms to be relieved. The wound in the gum healed up, and a great question was raised as to whether the scar did not hinder the subsequent progress of the tooth. This fear was alleged to be founded on ignorance; for, it was maintained, "all parts which have been the seat of wounds or sores are always more ready to give way to pressure". This reply, however, was met by the assertion that, while new cicatrices were easily torn, old ones were not, and that real trouble had been experienced from this cause. The controversy as to the cicatrix is closely related to another question; viz., at what stage of dentition may the operation be performed with advantage? and how often should it be repeated? While some warn us not to operate too soon, saying that the operation has no room except when the tooth is far advanced and almost visible, others equally warn us against the possibly fatal delay engendered by timidity or inexperience, contending that, if we wait till the gums are considerably elevated and pointed, 'the chief danger and pain are then at an end, and nature is sufficient for the purpose". With the practice of early incision, there is naturally associated the justification of repeated lancing. John Hunter was not ashamed to confess that he had "performed the operation above ten times upon the same teeth", and Dr. Churchill tells of a case in which he "was obliged to use the lancet thirty or forty times, each tooth requiring several operations". Underwood recommends, in obstinate convulsions, the lancing of the gums for five or six days in succession. Even this was not enough for Marshall Hall. "The idea of merely dividing the gum to allow the teeth to penetrate it, is inadequate (he said) to the real importance of this all-important remedy. In order to accomplish all that this measure is capable of effecting, we should lance the gums *freely* and *deeply* over a great part of their extent *daily*, or *even twice a day*, and apply a sponge with warm water, so as to encourage the flow of blood".

The method of cutting the gum was in like manner subject to much variation, alterations probably being made when it was found that the results were not so brilliant as expected. Various instruments, including the finger-nail and the edge of a sixpence, were used; but, when the operation was regarded in a serious light, some proper cutting instrument was usually preferred. But, even when a lancet was used, a few fibres might be left undivided; this was held to account for the want of success too often observed, and was alleged as a reason for the increase, instead of the relief of the pain which sometimes followed the operation. Crucial incisions were preferred by some, not only as dividing the gum more completely, but as allowing more easily of the flaps being dissected up and snipped off with scissors. But even this might not suffice; it was alleged by M. Baumes that a piece of the alveolar process might have to be taken away, so as to remove the obstruction, and the offending tooth itself might even have to be extracted.

The very proposal of such violent measures indicates clearly enough that, in the hands of its most devoted admirers, incision of the gums was far from being so satisfactory as was usually represented; the amelioration of the symptoms which resulted was often more apparent than real, and was frequently found to be but temporary.

The tendency of opinion at present seems to assent to Dr. West's dictum, that the circumstances in which the use of the gum-lancet is really indicated are comparatively few. Rilliet and Barthez could only recall one case in which any real benefit resulted from the operation, and the best Trousseau could say of it was, that the practice was useless. Even the most sceptical, however, seem to have encountered occasional cases where convulsions ceased on the lancing of the gums; but such a result is also obtained at times from other most unlikely remedies. It may here be stated that, in his careful study of 102 cases of convulsions in children, Dr. Gee could find no reason to believe that the teeth bore any part in the causation of the fits, and in none of the cases did it seem necessary to lance the gums.

But, it may be said, although the benefit may be very doubtful, why hesitate to give any child the chance of profiting, in its peril or suffering, by such a simple operation? and it is very probable that this idea regulates the conduct of many in dealing with infantile disorders. Such a proceeding has very properly been stigmatised as "nothing better than a piece of barbarous empiricism, which causes the infant much pain, and is useless or mischievous in a dozen instances for one in which it affords relief". It may, however, be well to consider shortly whether the absence of danger from lancing is so complete as is usually represented. And here we may call in evidence the great modern upholder of the practice, Marshall Hall himself. He was much too consistent an advocate of his own views to ignore the danger of such frequent tampering with the mouth and gums of an excitable infant as he had himself recommended, and he admitted this disturbance as a real and true objection to the use of the gum-lancet. But this objection—no trivial one when fully considered—is not all. Local disasters have also happened. Passing by as doubtful any injurious influence on the ultimate growth of the teeth, suppuration and ulceration of the gums, and even gangrene, are admitted by its advocates to have been seen after this operation. Dangerous or fatal hæmorrhage from lancing the gums, although not likely to be readily recorded, has been published in several cases. Even M. Baumes admits the danger from hæmorrhage in incising the gums when much engorged, and he points out that the swallowing of the blood may conceal the extreme peril of the infant. Hamilton, although he had never seen a death from this cause, heard of one on evidence which he could not controvert. Dr. Churchill admits that bleeding from the wound has sometimes been excessive, requiring pressure, astringents, and caustics. Rilliet and Barthez have known it to require plugging. Dr. B. W. Richardson speaks of having "had two or three very painful lessons of this description", and he mentions one death occurring to a country practitioner, and another accident with nearly fatal syncope in his own dispensary practice. Dr. Young (Edinburgh) narrated, a few years ago, two deaths from this cause, which occurred in his father's practice. Fatal hæmorrhages have also been reported by Taynton, Anderson, Whitworth, Des Forges, and Nicol, and in only one of these cases was there supposed to be any special hæmorrhagic tendency.

Further scrutiny of these cases shows, as we might expect, that nearly all these deaths were reported under somewhat exceptional circumstances; so that many more disasters have, doubtless, occurred and have been allowed to slip into oblivion. Without laying undue stress on these perils and calamities, occurring as they do amongst an enormous number of operations, they may well be seriously considered *when the generalisation of the treatment is contended for on the ground of its absolutely innocuous character.*

The chief danger, however, of the wholesale use of the gum-lancet lies in its embodying in practice a theoretical view of the ailment, and so tending to close the mind against further inquiry into the diagnosis, etiology, and treatment of infantile disorders.

A CASE OF CICATRIX OF THE PYLORIC END OF THE STOMACH CAUSING DEATH.

By M. A. WOOD, F.R.C.S., Ledbury.

A. B., aged 63, female, of a delicate constitution, was attacked, in September 1873, with sickness and pain in the epigastrium. This continued for two or three weeks, as a daily occurrence, during which time she persevered in her household duties without seeking medical advice.

When I saw her in October, she was suffering from a spasmodic pain, accompanied with a sinking sensation in the epigastrium, which was generally most severe in the morning, and was usually relieved by vomiting a thick, glairy, insipid fluid. Food of a mild character generally lessened the pain, though it produced a sense of weight and flatulence, which latter symptom was often extreme. The tongue presented a sodden appearance, and was covered with a fur of viscid mucus. The bowels were confined, and there was marked chilliness of the whole frame, but chiefly of the lower extremities. The sickness occurred two or three times a day, but seemed unconnected with taking food, and the ejecta consisted mainly of mucus. Various drugs were tried, such as alkalies, ipecacuanha, blisters, etc., with only partial relief, until she took what I have long found most valuable in cases of follicular or catarrhal dyspepsia (of which I considered this to be an example), viz., ten grains of compound kino powder three times a day. This soon gave marked relief, and at the end of November she had entirely lost her sickness, the pain was only occasional, and her general health improved very much. After remaining in this condition for two or three weeks, she was attacked with a return of the symptoms, and she at once resumed the compound kino powder, with the same beneficial effect at first. After a time, however, the symptoms underwent a change, and it lost its influence. The pain now became more constant, and was fixed in the hypochondriac region. It was also greatly increased by taking food, and, however mild the food was, it was generally rejected. She now became extremely emaciated, and assumed much of the aspect of malignant disease.

She was put on a diet of milk and lime-water, and commenced to take the following pill three times a day: Nitrate of silver, a quarter of a grain; extract of belladonna, one-sixth of a grain; muriate of morphia, one-twelfth of a grain; and bread-crumb. Great relief resulted from this treatment, and in the course of a few weeks the sickness and pain entirely left her, and she was able to take ordinary mild diet. At the end of March 1874, she left home for change of air, and for the first three weeks improved greatly in strength, when she was again seized with sickness, accompanied with distension of the stomach and obstinate constipation, and in a week's time she sank exhausted.

On making a *post mortem* examination, in pursuance of her own expressed wish, the stomach was found enormously distended, and the intestines much contracted. On opening the former, there appeared several large patches of thickened mucous membrane, rising above the level of the rest, and presenting a velvety character; two of these lay close to the margin of the pyloric opening, and between them was a cicatrix about the size of a shilling, composed of white fibrous tissue, and quite devoid of mucous membrane, which had so contracted this orifice as to render the passage of even a goose-quill difficult. There was no disease elsewhere.

Remarks.—I have been induced to report this case, as I think the *post mortem* appearances accurately and interestingly explain the course of the symptoms during life. First, there were the symptoms of catarrh of the stomach in October, evidenced by the thickened mucous membrane and hypertrophy of the gastric follicles. Then came the symptoms of ulceration about January, evidenced by the cicatrix. Lastly, the symptoms of obstruction, explained by the contracted pyloric orifice. Unfortunately, the ulcer had formed in so critical a place in the stomach, that only a small amount of contraction was required to occlude the natural orifice.

CLINICAL MEMORANDA.

SEVERE NERVOUS SYMPTOMS FROM ASCARIDES.

A widow lady, aged 34, had been suffering some months from nervous symptoms of a very distressing character. She was frequently affected for a variable period with complete hemiopia, and sometimes she saw what appeared to be thousands of glittering bits of broken glass before her eyes. The right orbicularis palpebrarum was constantly thrown into such rapid and violent spasm, that she was quite unable to keep the eye open. On further inquiry, it was found that she was very much teased by an abundance of ascarides and by distressing pruritis. In other respects, she seemed to be tolerably well. She was ordered four grains of calomel at night, and an enema of turpentine in gruel in the morning. A large mass of ascarides was brought away; and this was followed by speedy relief of all her symptoms. These, however, returned after a few months, but were again removed by the same treatment.

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OBSTETRIC MEMORANDA.

SCARLATINA DURING THE PUERPERAL STATE.

Mr. Stewart reports a case in the Journal of September 5th which is of great interest to obstetricians. I intended reporting a similar case occurring in my practice, so will give a note of it while the subject is on the *tapis*. On August 8th, a child of a parish patient died of malignant scarlet fever. On the 9th, another child, and then another, had symptoms of being affected with the same disease. On the 10th, it was developed in both, each having a copious rash, sore-throat, etc. On the 11th, the mother was confined, at or about her full time, of a fine girl, having beside her in the bed (for there was only one small sleeping-room in the cottage) the sick child. I asserted that she would almost certainly die; but she put my wisdom to the blush by recovering without a bad symptom. Her scarlatina (a mild attack) ran its ordinary course, and she is now tending her infant and nursing her little bed-fellow, whose case has been and is a somewhat serious one. In this case, I was helpless to do anything for the patient, except as to advice and getting a little extra nourishment. Being some miles from my house, equally far from hospital, in an isolated situation, in a tiny cottage, the nearest neighbours afraid to come near to help, and for three or four days after the confinement the body of the child who had died in the house, everything almost had to be left to Mother Nature—and I think the way she did her work teaches us a lesson. I cannot, however, exactly follow Mr. Stewart in his theory respecting the cause of immunity in such cases. If his reasoning be correct, it necessarily follows that there must be septic absorption (the second factor) in every or nearly every case where (say) scarlet fever poison is absorbed *after* a confinement, as it is well known that in such case a fatal issue almost always results; and then we should have to go further and say that, after nearly all confinements, there was septic absorption, only requiring another factor, zymotic germs, to develope results fatal, or at least very serious, when *plus* such second poison, but innocuous alone. I rather think the reason is this. The fever-poison, having been absorbed previously, has already spent its virulence on those parts where it has located itself, and has not (if I may so express it) the power of metastasis. Again, the poison already in the system protects from a second absorption of the same or analogous poison-germs. This latter theory seems to approach very near a certainty. I do not know that this subject has been much discussed in the profession, but it seems well worth the notice of obstetricians.

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ON THE SYMMETRY OF THE PANCREAS AND SPLEEN :

DO THE SHOULDER-TIP PAIN AND OTHER SYMPATHETIC PAINS OCCUR IN DISEASES OF THESE TWO MEMBERS OF THE PNEUMOGASTRIC SERIES ?

By D. EMBLETON, M.D., F.R.C.P.,
Physician to the Newcastle Infirmary.

II.—The Spleen.

The same plan will be followed in investigating this organ as in that of the pancreas (see Brit. Med. Journal, Sept. 27th, 1873), and under the following six heads.

1. The idea entertained of the spleen, as to its unity, duality, or plurality, its symmetry or asymmetry, by descriptive anatomists, and its varieties, in man.

2. The account of its earliest fœtal condition, as given by developmental anatomists.

3. Its comparative anatomy.

4. Its supply of blood-vessels and nerves.

5. The conclusion suggested by a consideration of the above four heads, and by a comparison of the spleen with the liver.

6. Lastly, the question, Do the shoulder-tip pain and other sympathetic pains occur in diseases of the spleen as in those of the liver?

1. By descriptive anatomists, the spleen is either plainly defined as, or is assumed to be, normally a single organ, as is the case with the pancreas; its larger end is called "the head", its lesser end "the tail", and between the head and the tail is the "body", of which can be made "neither head nor tail". The quotations, given below in foot-notes,* express the prevalent idea of the unity of the spleen, and also detail the varieties to which this organ is subject in the human body.

In these extracts (and many more might have been collected had it been necessary) it is laid down and taught that the spleen is normally single, but that it is found from time to time to have from one to twenty-three supernumerary or accessory splenculi more or less near to it. No expression is given to an opinion that the spleen might possibly be a double organ, and have symmetrical relations with the median line of the body. It is not stated, indeed, by any anatomist whose works I have been able to consult, that the spleen is double or symmetrical (more or less) in the same sense as that in which the heart, lungs, and liver are double and symmetrical. All through, it is a single organ, and we know that it is one lying on the left side; indeed, the constantly and literally sinister location of the spleen seems to have entirely excluded the idea that it could possibly be an organ with the same relations to the median line as the rest of the viscera of the thorax and abdomen.

Even when two spleens have been encountered, it does not appear to have been conjectured that one might possibly have belonged to the right, and the other to the left, side of the body; and in the cases of triple or multiple spleens, the lesser have been regarded simply as ununited portions of the largest one. The fact of their existence has been duly noted, and the note is that of a curious, unaccounted for, and barren fact.

2. What we know of the Development of the Spleen appears to be contained in the subjoined extracts from the best authorities on the subject.*

From these we learn that the spleen originates on the median line of the body, is gradually carried thence, during the progress of the development of the abdominal organs, to the left hypochondrium, and that it ought to be regarded as originally median, not belonging to the left side more than to the right. Not one of these authorities treats the spleen otherwise than as a single organ.

3. It may here be observed that, as the pancreas, in man, is liable to several varieties—and these are, as Tiedemann pointed out, found to occur in the lower animals—so, again, in the case of the spleen, there exist, in man, several varieties, which also are discoverable in the lower animals. Of both pancreas and spleen, however, varieties diverse from those that are human are to be met with in the lower vertebrata. The extracts, in the notes below, from the *Comparative Anatomy of the Spleen*, by Professor Owen and by Mr. Gray,† exhibit the principal varieties

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* *a.* Riolanus, jun., states that, "in respect to number it is wont to be singular; sometimes it has been observed to be double or threefold". (*Anatomy and Physic*, English translation, circa 1648, book ii.)

b. Bartholinus: "Though commonly single, it is seldom double, more rarely treble", and he has seen it "divided into five portions." (*Anat. Bartholinian.*, Lugd. Bat., 1674.

c. Blancardus: "Splen . . . raro loco mutatur, sed magnitudo sæpe variat, aliquando in duas partes divisus duplicem quasi lienem representat." (*Anat. Reformat.*, Lugd. Bat., 1687.)

d. Gibson: "It is commonly but one in man, though some have found two—yea, Fallopius three. In dogs, there are sometimes two or three unequal in bigness." (*The Anatomy of Humane Bodies Epitomised*, Lond., 1697.)

e. Winslow: "The figure of the spleen is not always regular, and is as various as its size. Sometimes it has considerable scissures, both in its sides and edges, and sometimes it has appendices. I have sometimes found a kind of small distinct spleen more or less round, and connected separately to the omentum at some distance from the extremity of the ordinary spleen." (*The Anatomy of the Human Body*, translated by Douglas, Lond., 1764.)

f. Cheselden: "Sometimes it is divided into lobules; but for the most part has only one or two fissures on its edge, and sometimes more. I have twice in a human body seen three spleens, twice two, and once four some of these were very small, and others equal; but altogether in any of these bodies were not larger than the one which is usually found." (*The Anatomy of the Human Body*, 13th edit., Lond., 1792, p. 167.)

g. Cruveilhier: "The spleen is single in the human subject. I have never seen more than two supernumerary spleens in man." He doubts, but does not deny, the possibility that there may be ten, twelve, or even twenty-three. (*Descriptive Anatomy*; Tweedie's *Library of Medicine*, vol. vii, 1842.)

h. Ribès: "La rate est ordinairement un organe unique, cependant il y en a plusieurs; en effet, Cabrol, Morgagni et Dominique de Marchettis en ont rencontré deux; Cluselden (Cheselden probably) et Fallope en ont vu trois; Fanton dit avoir observé des sujets qui en avaient quatre, Guy Patin et plusieurs autres anatomistes en ont trouvé jusqu'à cinq; mais alors il y avait constamment une plus volumineuse, et qui était située plus haut, lorsque les autres, plus petites, étaient placées plus bas, dans l'épaisseur de la partie supérieure et gauche de l'epiploon. Ces rates surnuméraires existent plus particulièrement dans le jeune âge et disparoissent probablement à une époque avancée de la vie, car on en trouve rarement chez les vieillards." (*Dictionaire des Sciences Médicales*, tome xlvii, "Rate", 1820.)

i. Huschke: "Die Milz ist eine unpaare Blutdrüse", but has many varieties of supplementary spleens—generally one or two; but from four to seven, or even twenty-three, have been observed. (S. T. von Sömmering *von Baue des Mensch. Körpers*, fünfter Band, 1844.

j. Kölliker: "The spleen is a single, so-called vascular gland; its outer surface oft exhibits a more or less deep and oblique incision." (Todd's *Cyclopædia*, vol. iv, 1847-1849.

k. Quain, Ellis, and others, believe in its unity, and, with Kölliker, repeat the stock account of numerous supplementary splenculi. (See Quain's *Anatomy*, 7th edition; and Ellis's *Demonstrations of Anatomy*, 3rd edition.

l. Bright: "It is by no means uncommon to find one, two, or three small spleens, from the size of a filbert to that of a walnut, quite separated from the large spleen." (*Clinical Memoirs on Abdominal Tumours*, New Sydenham Society, 1860.)

* *a.* Johannes Müller (*Physiology*, translated by Baly, 2nd edit., vol. i, 1840) tells us: "This portion of peritoneum (the great omentum) passed originally from the spinal column to the middle line of the great curvature of the stomach, forming a mesogastrium, in which the spleen was developed. The spleen, therefore, is not an organ proper to the left side of the body, of which the fellow of the opposite side of the body is wanting, but it should be regarded as an organ originally situated in the middle line, just like the liver, which at first, when its two lobes were equal, did not belong to the right side more than to the left."

b. Quain (*Anatomy*, 7th edit., 1867, p. 888) says: "It appears in the fœtus about the seventh or eighth week on the left side of the dilated portion of the alimentary canal or stomach, and close to the rudiment of the pancreas. By the tenth week it forms a distinct lobulated body placed at the great end of the stomach."

c. Kölliker states: "It is developed at the end of the second month, in the fœtal mesogastrium, at the fundus of the stomach, from a blastema, which, derived from the middle layer of the germ, independently of the stomach, the liver, and the pancreas, collects in this situation." (*Manual of Human Histology*, vol. ii, p. 158, Sydenham Society, 1854.)

d. Sanders (Goodsir's *Annals of Anatomy and Physiology*, part ii) affirms that "the spleen is single, because it is originally developed on the median line".

e. On the other hand, Felix Plater (*De Corp. Human. Struct. et Usu*, Basil, 1583), quoted by Gray in the Historical Introduction to his well-known work on the Spleen, argued "that as all azygos parts are placed on the median line of the body, the spleen cannot be one, as it corresponds in situation and structure with the liver, and therefore it must be the liver of its own side—an opinion he attempted to prove by many arguments".

Not being able to consult Plater, I cannot state his arguments, or what he may have said further on the subject; but, from the above quotation, he appears to regard the spleen, as he does the liver, as a single organ, not a double one; symmetrical, not in itself, but as a pendant to the liver, its supposed fellow of the right side.

† In Fishes it is usually single; in the skate and all the highly organised Plagiostomes, as in the basking shark, it is subdivided into numerous distinct lobes. In the sturgeon there is an accessory spleen. (Owen.)

In Birds it is single. (Owen.)

Among Mammalia, in the ornithorhyncus and echidna, the spleen consists of three lobes (Gray); in the former, of two only. (Owen.)

A small supplementary spleen is found at times, in addition to the regular one, in porcupines and agoutis, and in the Dasypus sex-cinctus (Owen). Gray has found, in Dasypus, the organ deeply divided into two lobes. In the great anteater the upper end, and in most Marsupials the lower end, is bifurcated.

In some Cetacea the spleen is remarkable for its subdivisions; the largest, in the porpoise, equals a walnut; the others, to the number of four, five, or six, are of much smaller size (Owen). Gray noticed six, Cuvier seven, Bartholin three, and Hunter two only. (Gray.)

In the hyrax, Owen found it broad, flattened, semilunar, with occasionally a narrow process from its middle, like a handle (indicative, perhaps, of a tripartite division).

In the seal the organ was a flattened body, with an irregular notched margin; and in the gastro-splenic omentum were situated a number of small dark glandular bodies, from the size of a horse-bean to that of a pea, resembling the omental splenules in the porpoise: these were not found in a second specimen. (Owen.)

Gray states that "in the ichneumon, whilst it presents the elongate form most usual in the Carnivora, it has the singular peculiarity of being completely divided into two lobes, which are connected together through the medium of the peritoneum."

Owen says: "In the aye-aye it is an elongated trihedral body, bent at nearly a right angle upon itself, the lower portion being nearly half the length of the upper. It presents the like shape and position in the lemurs."

"It shows a subtriangular form in the baboon, where one angle is attached to the stomach, another to the kidney, and a third projects freely into the epiploon."

"With some minor variations, the spleen is single in all other Mammalia."

of the spleen in those orders of animals in which the organ exists. In these extracts we find the spleen of the lower animals presenting a considerable variety of form; it is treated, on the whole, as a single organ, but also in detail as one that is double, triple, or multiple, according to the number of supplementary splenules, as a bilobed, trilobed, or multilobed viscus, and in these respects it resembles the liver and pancreas in comparative anatomy; but, in the two works from which the extracts are taken, we fail to discover any indication whatever that the spleen, whether single, double, or multiple, is regarded as double in the same sense in which the liver, lungs, and heart are double, or that it has any claim to be considered as in any way bilaterally symmetrical. In the ichneumon, in which the spleen is completely divided into two separate lobes "connected together through the medium of the peritoneum", it would be interesting to know whether these both belonged to the left side; whether, that is, they both received nerves from the same side of the body, or one set from the right, and the other from the left side, or what the actual distribution of the nerves was.

On the whole, the spleen of the lower animals, like that of man, is said to be a single, and it is a left side, organ. In its origin, we have seen that it is also single, but belongs not more to the left than to the right side of the body. The accessory splenules are, doubtless, in reality, portions of the larger body—some belonging perhaps to the head, others to the tail—that have been separately developed *ab initio*, or have failed to coalesce with it during growth, or have become detached from it at an early period during its migration from the median line of the body to the left hypochondrium, and represent a sort of tendency to diffusion of the organ, such as is seen in the pancreas of the Rodentia, and (may it be said?) in the lung of birds and the heart in Reptiles.

The entire normal spleen is nothing, as we know, but an aggregation of small spleens, each of which possesses its own blood-vessels and nerves. It appears, then, that the indication given by developmental anatomy that the spleen is originally a median, and therefore a symmetrical organ, and hence may be found to retain, even in its adult condition, some vestiges of its original state, appears to have been overlooked.

4. Let us now look at the blood-vessels and nerves of this so-called single and left-side organ as described in human anatomy.

a. Blood-vessels.—The *splenic artery*, from the cœliac axis, that is, from the median line of the body or front of the aorta, as it approaches the spleen, divides dichotomously; the upper and larger branches going to the "head", the lower or smaller to the "tail", each set supplying a part of the "body", the ultimate offsets being destined each for a distinct and separate portion of the organ. This being the case, it would appear to be matter of little real moment whether the spleen be aggregated into one large mass, or dispersed about in a number of small ones. In either case, the function of the organ would probably be equally well performed.

Veins.—These correspond in distribution generally to the arteries, but are of much greater calibre.

b. Nerves.—The proper nerves of the spleen constitute a portion of what is commonly termed the splenic plexus. The cœliac plexus, the first great offset from the semilunar ganglion on the median line, divides, speaking generally, into the gastric, hepatic, and splenic plexuses. The splenic follows the general course of the splenic artery; and that part of it which is destined for the spleen divides into offsets, which, together with those of the sympathetic, accompany the branches of the artery into the organ.

The question now arises, How is the proper splenic plexus made up? What nerves enter into its composition? This question is differently answered by different anatomists, and may be considered still to be an open one. The majority appear to hold that this plexus is made up of branches from the right and left divisions of the semilunar ganglion, and of one or two offsets from the right pneumogastric nerve. That the right pneumogastric, and not the left, assists in the formation of the splenic plexus, is laid down by Todd and Bowman, Quain and Sharpey, John Reid, Swan, Gray, Valentin, and Kollmann. Todd and Bowman give the left semilunar ganglion and right pneumogastric as forming the plexus. Sappey and Hirschfeld give no communication between the pneumogastric nerves and the splenic plexus. Cruveilhier says, "it has been stated that some terminal divisions of the pneumogastric have been seen distributed to the spleen".

The discrepancy of anatomical testimony is considerable; nor is it to be wondered at by those who have attempted the dissection of the parts.

The spleen, being an organ originally formed on the middle line of the body, ought, it may, *à priori*, and from its analogy of origin with the stomach, liver, and pancreas, be supposed to be provided with nerve-branches from both semilunar ganglia and from both pneumogastrics; and it is somewhat difficult to conceive how it can be otherwise. If the spleen be not so provided, it is the only exception to the rule which holds good for the whole series of pneumogastric organs. Descriptive anatomy, however, as it now stands, is against such *à priori* and analogical supposition, for no one author allows to the spleen nerve-branches from the left pneumogastric, though the spleen lies conveniently, so to speak, on the left side of the body. May one be allowed to express an opinion that this intricate part of difficult anatomy demands, both in the human subject, and in the other Vertebrata, a careful reinvestigation, special attention being directed to the sources of nervous supply for the spleen? This opinion is expressed with diffidence in the face of the high authorities quoted.

We may now enter into a comparison of the spleen with the liver, and see what light it throws upon the former viscus. And first let us, as was proposed in my former paper with regard to the pancreas (BRIT. MED. JOURNAL, Sept. 27, 1873), alter, at least in imagination, the situation and position of the spleen. Let us lay it on the median line of the body, its original site, placing its outer and convex surface uppermost, and its hilus undermost, supposing the body to be erect, so that its posterior thick border shall be behind, and its thin fissured edge in front, and the fissure itself, or the principal fissure, when there are more than one, on the median line of the body; now, the larger end, or "head", will be on the right, and the lesser end, or "tail", on the left of that line, and they will correspond respectively in position, and somewhat in relative size to the right and left lobes of the liver, and also to the splenic and duodenal lobes of the pancreas. The hilus of the spleen will also correspond to the transverse fissure of the liver, and the fissure in the thin edge of the former to the longitudinal fissure of the latter. The splenic artery will, moreover, correspond to the hepatic, and the splenic veins in some measure, as in relative size to the arteries, to the hepatic veins. The nerves, lastly, of the spleen will, it is presumed, correspond, in distribution at least, with those of the liver, going to the right and left divisions of the organ with the arteries.

Further investigation of the origin of the splenic nerves may possibly show that they are derived from each side of the semilunar ganglion, and from each of the members of the par vagum; and that the nerves from the right side are distributed mainly to the head, or right end or lobe of the spleen, and those from the left side of the body to the tail, left end, or lobe, an arrangement corresponding with that which exists in the case of the other pneumogastric organs. It may be suspected that, as the part of the spleen below (in its ordinary position) the fissure is commonly much less than the other above it, so the nerves of the former may be fewer and smaller than those of the latter, and that thus, in the intricacy of the combinations of the nerves of the solar plexus and its offsets, the minute left-side twigs may have escaped detection. The portal veins passing into, and the bile-ducts issuing from, the liver have of course no counterparts in the spleen. Of the lymphatics of the spleen we know very little.

In comparative anatomy, as we have seen from Owen and Gray, the spleen is like the liver, either single, or bilobed, or trilobed, or multilobed, or has a still further tendency to disintegration and diffusion.

Lastly, the spleen and liver both arise on the median line of the body, and do not belong, then, more to one side of it than to the other. Thus, there is a parallelism approaching completeness between the spleen and the liver which I am not aware has been previously pointed out; and, viewed thus, the spleen is, in form, a curiously modified repetition of the liver, and, it may be said, to a certain extent also of the pancreas.

The spleen apparently is not, properly speaking, an azygos organ, neither is it the "liver of its own side"; it is a viscus that has arisen independently of the stomach, liver, and pancreas, and belongs in origin, as much as they do, to the mesial line; and was then probably double and symmetrical, as, in its adult state, it is, according to the above view, double and symmetrical in the same modified sense that they are, but in a manner and degree different from them.

These four organs, arising as they do, develope themselves differently in direction, form, structure, and function, and during the course of that development lose more or less of their original symmetry, and end in the perfecting of four viscera, each of which has its own peculiar morphological, anatomical and physiological properties, and a common relation to the median line of the body. Of the four, the spleen is the most aberrant in form and position; but its original form is not so completely obscured that we cannot detect evident traces of it when we carefully study the organ, and compare it closely with its big brother, the liver; nor ought its sinister position in the adult body to deceive us when we are acquainted with its birthplace and migration.

5. If this parallel of the spleen and liver be correctly drawn, then there is no exception to the rule of double viscera in the abdomen any more than in the thorax—if we regard the alimentary canal, the bladder, and the uterus as made up of two lateral halves; and this much neglected and despised, insulted and abused outcast of a little organ has its obscured form and symmetry brought to light and vindicated, and it is

thus established in its legitimate place in the ranks of its abdominal congeners, and one of those mysterious difficulties in which it has hitherto been shrouded has been removed. It is no exception to the rule.

The exact functions of the spleen still await and invite the researches of physiologists.

6. If the spleen may, therefore, properly be regarded as an organ quasi-symmetrical in form, like the liver, it would be reasonable to expect, as already said, that it should also receive nerve-twigs from each pneumogastric and the sympathetic ganglia of each side; and that the shoulder-tip pain should consequently be found, when present, at times on one side, at times on the other side, at times, perhaps, on both sides; but, if the anatomy of the splenic nerves be correct, then the shoulder-tip pain, when present, should always be on the right side, together with all the attendant sympathetic phenomena.

The cases and quotations given below in notes exhibit sufficiently what has been observed to call the attention of studious members of our profession, particularly of those who have good opportunities of studying diseases of the spleen, to a discrepancy that exists between the results of pathological observation on the one hand, and of anatomical research on the other.

There is error on one side or the other; but I will only say that the observation and verification of symptoms of disease are much more easily performed and repeated than the dissection of the par vagum and the sympathetic nerves in the abdomen—a task which requires a skill, a dexterity, and a patience, with which few only are endowed.

The cases, etc., are arranged in two series. The first contains what has been gleaned from different authors of works on splenic diseases; the second, cases from my own practice at the Newcastle-upon-Tyne Infirmary.

SERIES I. *From Authors.*—Grotanelli[*] (*Ad acutæ et chronicæ Splenitidis historiam animadversionem.* Auctore Stan. Grotanelli, M.D., etc. Florentiæ, 1821) mentions the occurrence of pain in the left, not the right, scapula and shoulder, as well as in the spleen, in splenitis and abscess of the spleen.

The pain in the anterior part of the neck that occurs in cases of wounds of the spleen, and is mentioned in the *Dictionnaire de Médecine*, tome 18me, article "Rate", p. 221, by C. P. Ollivier, 1827, and in some later works, I suspect to be located in one of the pneumogastric trunks in the neck, though, unfortunately, the side on which it occurs is not mentioned. The passage from the *Dictionnaire* is given below.[†] The expression "partie antérieure du cou" is sufficiently vague to admit of such a suspicion, particularly as we know that pain in the trunk of that nerve does occur in some splenic diseases.

Cruveilhier, in his *Anatomie Pathologique*, tome i, 2me livraison, figs. 1 and 2, "Maladies de la Rate", gives us a very interesting case of splenitis.[‡] In this case, the pain of the left shoulder was signally marked, and was taken by Cruveilhier to be of a rheumatic nature; and it had not appeared to him as worthy of being considered as a purely sympathetic pain. It is also worthy of note that, during the intensity of the inflammatory disturbance going on in and about the spleen, the general circulation, or, at all events, the action of the heart, was not in this case materially quickened: the pulse was *médiocrement*, or *peu fréquent.* May this not have been owing to irritation or excitement of the cardiac branches of the par vagum, through their connection with the splenic branches, having heightened what is called "the inhibitory power of the pneumogastric", which state would thus keep down the action of the heart? This is a possible occurrence, and one which Cruveilhier could not at that time understand, any more than he could the violent shoulder-pain, which he called rheumatic, but which would appear to have been a pretty certain indication, taken with the other symptoms, that severe inflammatory action was going on in the spleen.

It is a well known fact that, in the most vital viscera, severe local inflammatory action may take place, and lead to abscess, with little or no important general disturbance until the bursting of the abscess take place; even the local mischief going on may not be suspected. But when we have a prominent symptom, like that of severe pain in the shoulder, as in the case quoted from Cruveilhier, we may feel confident, I think, that some one or other, or more than one, of the pneumogastric organs, is deeply engaged in an inflammatory process. In such a case, the state of the heart and of the general circulation would be a fallacious guide; whilst the shoulder-tip pain might be the best diagnostic aid we could possess.

Dr. Copland, in his *Dictionary*, vol. iii, part 2, notices, under the headings of Acute and Chronic Splenitis, the occurrence at times of pain in the left shoulder in adults and in children.[*]

Dr. Bigsby, in the *Cyclopædia of Practical Medicine*, 1835, vol. iv, p. 56, also notices the occurrence of shoulder-pain, probably of the left side, though the side is not specified, thus:[†]

SERIES II. *Cases in my own Practice.*[‡]—These, ten in number, are

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[*] Page 4, Simple Splenitis: "Sitis permulta; tussis sicca; rara primum, dein frequens et molesta; ea enim exsurgente acuto lateris et *scapulæ sinistræ* dolore premi, et dolentem lienem magis sibi intumescere queri, gibbumque illius adsidentibus ostentere solebat."

Page 18, Splenitis, with evident tumour and tenderness: "Lecto repositus profundior in sinistra abdominis parte dolor et *ad omoplatum sinistrum extensus* dum eructaret vel tussiret."

Page 69, Splenitis, with rupture of abscess into peritoneum: "Corripitur longum post iter, pluvioso cœlo, pedibus velociter emensus, febri specie catarrhali, typo quotidianæ intermittentis, quartum circa diem spen acriter dolere et intumescere cœpit. Tunc nausea, vomendi nisus, *sinistri huneris dolor*, tussicula, sitis multa exsurgunt."

[†] "La direction de l'instrument en pénétrant dans l'abdomen, la sortie d'un sang très noir dans la plaie, le gonflement et la douleur à l'hypochondre gauche, une soif ardente, *une douleur à la partie antérieure du cou*, tels sont ordinairement les divers symptômes qu'on observe", etc.

[‡] "Splenite-pusconcret combiné.' (Extract condensed.)

"Le 3 Sept. N., æt. 28, d'une très forte constitution, cuisinière, était dans l'état suivant. Face très colorée, langue rouge, lisse, sans enduit; pouls médiocrement fréquent; sueurs abondantes presque continuelles; *douleur rheumatismale assez vive à l'épaule gauche; d'ailleurs, nulle douleur.* L'exploration la plus attentive des cavités thoraciques et abdominale ne me permit pas de découvrir aucun point de départ. . . .

"Tout à coup, le 11 Sept., sur le soir, invasion d'accidens graves, frisson masqué, suivi de suffocation, d'angoisse inexprimable, de nausées, de vomissemens bilieux; ces accidens se dissipèrent pendant la nuit. Le 12 et 13, répétition des mêmes symptômes. Le 14, *la douleur scapulo-humérale, qui avait entièrement disparu les jours précédens, reparaît*; l'abdomen est souple et indolent, la langue est très rouge, le pouls est peu fréquent, et sauf les envies de vomir, etc., la malade est à peu près la même qu'avant l'invasion des dernièrs symptômes. Les jours suivans le 19, *sinapismes aux épaules pour remplir une indication à laquelle j'aurais dû peutêtre obéir plutôt.* Je ne pense pas que les douleurs aux articulations scapulo-humérales aient été purement sympathiques. Le 29. Jour de la mort."

After death, the spleen was found enlarged to seven inches in length, inflamed and covered with false membrane, which fastened it to the diaphragm. In its interior a varied discolouration was seen, white with red patches and deposits of pus, most of them concrete, but one of them fluid.

[*] At page 894, to the symptoms enumerated of acute splenitis, he says, "are generally added nausea and depression, a sense of tension and fulness, extending from the epigastrium round the left hypochondrium, and sometimes vomiting. A feeling of weight, oppression, and tension, is soon followed by more or less acute pain, extending often to some distance around the splenic region, and sometimes to the left shoulder".

Again, at p. 897, in chronic splenitis in children, among the symptoms he names: "The pulse is frequent, especially in the evening, and a remittent or hectic form of fever is commonly present; general uneasiness, headache, slight difficulty of respiration, and occasionally palpitation, and pain in the left shoulder, are also complained of."

[†] In chronic splenitis, "when the pus is deposited in the parenchyma, the membranes being sound, or nearly so, the pain of the part is small; but there is uneasiness, and both strength and flesh waste gradually till the patient dies. As soon as the investing membranes are affected, the sufferings become varied and acute, frequently with a pecular heat in the left hypochondrium. The pain often strikes to the spine, clavicle, or shoulder.

[‡] CASE I (vol. iv, p. 72), August 16th, 1855.—W. J., 43, labourer, had for six months had dyspeptic symptoms, debility, and turbid urine. For six or seven weeks he had observed a swelling at the left side of the epigastrium, extending under the left ribs. It was now considerable—manifest to the eye, even, hard, tender on pressure, not reaching as far as the navel. His appetite was bad; he had nausea; the food lay heavy on the stomach for three or four hours. The bowels were usually costive; no blood was passed. He sweated much. He had pain at the back of the head, near the base. His urine was thick, and smelling badly. He never had ague. The left pneumogastric nerve was very tender in the neck on pressure; the right not tender. No pain was complained of in the shoulder. The above tenderness was several times verified during the patient's stay in hospital.

CASE II (vol. vii, p. 252), December 6th, 1858).—W. C. D., sailor, had pain and fulness over the abdomen, chiefly in front of the left lumbar region, where there were dulness and pain on percussion. There were dyspnœa and much œdema of the legs. Pulse 125, appetite bad, bowels open.—Dec. 20. At 9 A.M., he had a rigor for half an hour, followed by sweating. The anterior edge of the spleen was distinctly perceptible, and tender on pressure.—Dec. 27th. He was improving, but complained of pains behind the left ear.—Jan. 21st. The pain about the ear had gone, and was succeeded by pain in the left arm, from the elbow to the shoulder, with some induration and tenderness of the triceps extensor cubiti. There is no mention of shoulder-tip pain, or of tenderness of the pneumogastric nerves in the neck.

CASE III (vol. vii, p. 47), December 7th, 1858.—J. C., middle-aged, had the spleen much enlarged and hardened, with pains in the spleen and left shoulder, and tenderness of the left pneumogastric nerve. He was in general bad health.—Jan. 10th. In addition, he had pains in the calf of the left leg.—Feb. 4th. He had much pain over the liver, spleen, stomach, and bowels, with griping, frequent desire, and tenesmus; surface pale, chilly, and perspiring. Pulse, 75; weak.—Feb. 7th. There was decided diminution of the size and tenderness of the spleen, which was more movable than before. He had pains in the epigastrium and right hypochondrium. The bowels were free; his appetite and complexion were better; the tenderness of the left pneumogastric nerve was nearly gone.—March 7th. He passed much flatus at times from the bowels, which were open. His general condition was much improved. The tenderness of the nerve was entirely gone.—June 3rd. He was made an out-patient after several attacks of dysenteric diarrhœa.—June 10th. The spleen was smaller and less hard; there was some pain over the liver. There was tenderness over the left pneumogastric nerve, none over the right, and pain about the left scapula. The bowels were relaxed; the stools were like blue clay; the appetite was good.

CASE IV (vol. vii, and vol. viii, p. 106), December 29th, 1859.—J. C., 39, sawyer, had been previously an in-patient on December 2nd, 1858, having returned from the Crimea ten months before in bad state of health. He had pains in the epigastrium and in the legs, with diarrhœa and tenesmus. The stools were very mucous, but not bloody. There was great hardness over the splenic region, and a sensation as of something rising thence up the chest into the mouth, and occasionally pain on the left side of the head. He had pyrosis and flatulence, but the tongue was clean and the appetite sharp. His symptoms had been greatly relieved by free evacuation taken from the records in my Infirmary case-books. Several other cases occur in them; but there is no entry of the existence of shoulder-tip pain in those cases, either because it had not existed, or because observation had not at the time been directed to that point. The cases are purposely much condensed, and the treatment omitted.

These two series of observations, so far as they go, answer in the affirmative the question proposed in heading 6 of this paper. The shoulder-tip pain *does* exist, though not always, in splenic disease. The proportion of cases in which it occurs is not known. But it is curious to observe that, instead of occurring on the right side, as one would naturally be led to conclude, from the book-anatomy of the organ, it would, it is most commonly found on the left side.

In the first series of observations, the pain is not noticed as being ever on the right side. Three of the authors specially mention the left side as its seat. The other two do not name the side; but it is fair to infer that one of them, Dr. Bigsby, means the left side; whilst the observation of M. Ollier may be taken as neutral.

In the second series, pain at the shoulder-tip was complained of by the patient in three cases only, Nos. 3, 7, and 9, of the ten, and was not complained of in the other seven. In these three cases, the pain was exclusively on the left side.

The left pneumogastric nerve was found tender on pressure in six of the ten cases, Nos. 1, 3, 4, 5, 7, and 9; the right nerve in two, Nos. 8 and 10; and both nerves in one case, No. 6. In the remaining case, No. 2, no mention is made of pain or tenderness in either pneumogastric; but there was pain in the left ear, and in the left arm from elbow to shoulder. The cases 7 and 9 were the best marked examples, and the most carefully noted, of the connection of the par vagum with the spinal accessory, and of this with the painful spot at the top of the shoulder.

We have, moreover, in the second series of cases, instances of pains in the left scapula and left side of the chest, left loin and even left leg, left side of neck and head and left ear, temple, and part behind the ear.

In cases 8 and 10, in which the right nerve was tender, there were no other sympathetic phenomena noted as belonging to that side; but the sudden darting of pain, in case 10, from the compressed tender nerve down the chest to the spleen, was striking, and gave occasion to the remark that, in this case at least, the spleen received a branch or branches from the right pneumogastric nerve, according to the anatomical rule.

We know that all persons are not organised alike; and possibly all spleens are not nerved alike—some receiving their nerves from the right, some from the left side, and some from both sides.

The pain at the shoulder-tip, when present, varies greatly in intensity, and may coexist or not with the splenic pain. It appears to increase with the severity of the splenic affection, as is clearly seen in the interesting case quoted from Cruveilhier, and to decline with its subsidence; being thus in certain cases, and in some measure, an useful indication of the state of the disease.

When active pain at the shoulder is present, not only is the pneumogastric nerve of the same side tender on pressure, but also the external division of the spinal accessory, in its course from the base of the skull to the edge of the trapezius, where it enters that muscle; indeed, when no pain is complained of at the shoulder-tip, these nerves will not unfrequently be found tender, and the patient quite unaware of such tenderness. Some patients, indeed, with splenic disease appear

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of the bowels. The urine was thick, and there was considerable loss of flesh and debility.—Dec. 13th to 20th. He had pain also over the liver and spleen, and tenderness on pressure, and a good deal of general swelling over the abdomen.—Jan. 10th, 1859. The spleen was gradually becoming softer and less tender. His health was better. He had pain in the calf of the left leg.—Feb. 4th. There was much pain over the liver, stomach, and spleen, and towards the middle and lower part of the abdomen. The spleen was more movable; it seemed to drop down when he got up. He had gripings and tenesmus. The left pneumogastric nerve was tender on pressure.—Feb. 28th. He had a chill, almost a rigor. On the whole, he is improving.—In March he had some dysentery, and also in May, when some blood passed; anterior border of spleen nodulated and hard.—June 1st. The spleen was not so hard, less in size, and less tender. There was some pain over the liver. There was tenderness of the left, but none of the right, pneumogastric. He had pain about the left scapula. The bowels were rather relaxed. He became an out-patient.—June 24th. He was readmitted, with dyspnœa and œdema of the legs, and mitral murmur at heart. He had pains between the scapula and in the chest, above the left mamma. In July, he had repeated epistaxis, severe abdominal pains, and purgings.—August 5th. He had cramps and diarrhœa, particularly if he fell asleep on his right side; afterwards epistaxis, cough, and bloody expectoration, and at times dysentery. In December, there were advancing prostration, abscess and bed-sore over the left hip, followed by hæmorrhage. He died on December 28th, after obstinate and uncontrollable purging.—*Post mortem* examination thirty hours afterwards. The body was much emaciated. Rigor mortis was present. The abdomen was distended; there was no œdema. There were extensive and firm adhesions of the right lung to the chest; none on the left side. There was serous effusion into the pleuræ. The lungs were crepitant and free from tubercle. The pericardium was free, and contained a little serum. There was atheromatous deposit on the aortic valves and ascending aorta, producing in life the bellows-murmur which was thought to have been at the mitral orifice. There was a little hypertrophy of the left ventricle. Two or three pints of serum were found in the peritoneum. The liver was enormously enlarged, weighing 7 lbs. 1 oz.; it presented a granular nutmeg appearance, and was friable, but there was neither tubercle nor abscess. The gall-bladder held a little bile; no calculi. The upper and back part of the liver was adherent to the diaphragm; at the under surface were strong adhesions to the colon. The stomach, larger than usual, contained a dark grumous fluid. The pyloric orifice was so much constricted that the little finger could hardly be pushed through it; a narrow, even, cartilaginous band forming the constriction. The intestines, examined at various points, presented no visible change of structure. The spleen weighed 3 lbs. 4 oz., and was adherent by its upper end to the diaphragm, and by its side to the descending colon. It was pyriform: its anterior edge nodulated. On section, its texture was firm, hard, and consolidated, containing little blood. At about the middle of the upper end, a portion about the size of a large walnut appeared to be tubercular. The blood from the splenic vein showed under the microscope a much larger proportion than normal of white cells. The kidneys were degenerated in the cortical parts.

CASE V (vol. viii, p. 72), May 24th, 1859.—P. S., 26, labourer, complained of violent headache and inability for any kind of exertion, pain in the spleen, and ague fits daily.—May 27th. He had a paroxysm daily, but that of the 26th was postponed from 8 A.M. to noon. He had pain in the head. The tongue was slightly furred; the bowels free. Pulse, 64; small. The respiratory sounds were feeble. He had tenderness of the left pneumogastric.—June 3rd. He had no more fits. There was pain of the middle of the back and of the legs.—June 4th. He was dismissed for disorderly conduct.

CASE VI (vol. xi, p. 50), August 14th, 1862.—C. F., 29, had been ill about ten weeks—at first with tertian, and latterly with quotidian, ague. The tongue was slightly furred; the appetite bad; the bowels regular. The anterior border of the spleen, uneven and hard, could be felt under the ribs of the left side, and became more distinct on full inspiration. It was tender on pressure.—Sept. 1st. He had great pain of the head, relieved by cupping on the nape. On the last visit, three days ago, he complained of tenderness, on pressure, in the neck, over the pneumogastric nerve of both sides, and some tenderness also over the liver.

CASE VII (vol. xi, p. 132), October 30th, 1862.—J. C., 42, labourer, strongly built, but sallow and debilitated, had been bled annually for twenty-five years, and had taken purgatives frequently. Two years ago, owing to rapid alternations of heat and cold at his work, he became dropsical in the legs and belly, and got pains in the legs. He had never had ague. Three months ago he found a tumour, the seat of severe stinging pain, tender on pressure, and gradually growing larger, in the left hypochondrium. No ascites was present; but œdema of the legs, especially the left. The notched anterior border of the spleen could be easily felt within three inches of the navel; and its hard, smooth, external surface was distinctly traceable into the left hypochondrium. The organ measured at least six inches in length. The left loin was tender. The left front of the chest, and the left shoulder behind the acromion, often ached, and were painful; and there were some cough and dyspnœa on exertion, and palpitation of the heart. In the neck, the left pneumogastric and spinal accessory nerves were painful, under pressure, along their whole course; and there was a complete absence of pain and tenderness on the right side of the neck over the course of these nerves. There was heaviness of the head, vertigo, and noise in the ears, especially in the left. His appetite was generally good; the bowels costive. He had piles, but never diarrhœa or melæna. There was no albumen in the urine. An abundance of white cells were present in the blood; they were more numerous than the red discs.—Nov. 15th. He had dull pain in the spleen, nausea, griping, and purging of blood.—Nov. 28th. He was so much relieved that he was made an out-patient.—Jan. 9th, 1863. He was re-admitted. He did well for three weeks as out-patient. Very little pain existed in the spleen, which was much less, softer, and less tender on pressure. Pain passed up at times from the spleen to the left shoulder and temple, particularly at nights. The red discs were greatly multiplied, and the white cells relatively less numerous. He went out in February, much restored, with directions to use no more bleedings.

CASE VIII (vol. xi, p. 72), February 21st, 1863.—J. D., 50, pitman, six months since had a swelling over the hypogastrium, extending to the left hypochondrium over the splenic region, with pain and uneasiness passing to the back. He had been somewhat intemperate. He had had several severe rigors—one three days ago. Bowels costive; tongue clean; appetite bad; pulse 88, weak; urine plentiful.—Feb. 27th. He has been leeched, but not relieved. The pneumogastric nerve of the right side was more tender than that of the left.—March 13th. He was improving. There was little or no tenderness of the pneumogastric nerve.

CASE IX (vol. xx, p. 98), January 26th, 1872.—T. B., 60, had had quotidian ague for nineteen weeks, got in Canada. He had pain of the back, from the sacrum to the loins. There was no tenderness over the liver or front of the splenic region, but at the back and side of the left hypochondrium on pressure. There was no cough or sputum. When pressed in the neck, the left pneumogastric was painful. Tongue clean; bowels open; urine high in colour, and thick.—February 2nd. He was not so well. He had intense pain in the left side, on which alone he could lie. On close examination, dulness on percussion was found over the five lowest ribs of the left side. He had palpitation of the heart. There was pain in the neck along the left pneumogastric nerve, and the external division of the corresponding spinal accessory. This pain was worse when that of the spleen was more severe, and it was sometimes of a throbbing character. The blood-discs varied greatly in size; many were much smaller than normal, and others fragmentary. The white cells were scanty, smaller, and less granular than usual.—Feb. 9th. The pain in spleen and shoulder was diminished.—Feb. 12th. He had considerable pain up the left side of the neck, also in the left ear, but little in the spleen. He had pain on the left side of the head and in the small of the back.—March 22nd. There was a little return of pain in the left side. Bowels free; tongue clean. He had gained 10 lbs. in weight since admission.

CASE X (vol. xx, p. 123), July 11th, 1872.—J. M., single, 21, gardener, had never had ague till lately, though thirteen months ago he returned from America, where for twelve months he lived in an ague district. He had had a cold fit daily for three weeks, at 4 P.M., with headache, great thirst, etc., slight cough and expectoration, and night-sweats. There was tenderness over the epigastrium and left hypochondrium, which latter region was also the seat of pain. Splenic dulness extended vertically for six inches along the inframammary line, and horizontally for upwards of nine inches backwards from that line. He did not complain of pain in the shoulders; but on pressing the pneumogastric nerves in the neck, the left gave no sign of tenderness, whilst the right was decidedly tender; and the pressure gave rise to a darting pain, which went at once down the interior of the chest to the swollen spleen.—After July [illegible]th, the fits were absent till the 28th: but on the 22nd, severe pain occurred in the stomach. After the 28th, the ague gradually left, and he went out on August 15th.

quite surprised that a tender place of which they were unaware should be made manifest to their feelings. These nerves normally are not tender on pressure, unless it be severe.

The shoulder-tip pain and the nerve-tenderness in these diseases are owing, as I believe they are in liver-diseases,* to an extension of irritation or inflammatory action from the diseased organ along its pneumogastric twigs to the trunk of the par vagum. In a case in which the morbid state of the spleen has been intense and continued for a time, this irritation or inflammation passes up the trunk of the nerve to the base of the skull, and even to the origin of the par vagum and the two divisions of the spinal accessory, giving rise there to pains and other disturbances.

There can be little wonder that the external division of the latter nerve becomes affected, when we recollect the intimate incorporation of the internal division with the pneumogastric, and the connections of the internal and external divisions with each other. When the irritation of the pneumogastric has reached the connection of this nerve with the external division of the spinal accessory, it appears to be "shunted", or diverted in part along that division, which it causes to be tender along its whole course to the shoulder-tip, and is at times manifested as pain at that part.

This shoulder-pain in splenic diseases will limit, on the left side most commonly, as it does generally in hepatic diseases on the right side, the respiratory movements of the sterno-cleido-mastoid and trapezius muscles, and thus the splenic side of the chest will be kept more quiet than it would otherwise be. When liver and spleen are both diseased, then both sides may be similarly affected in their movements.

The above morbid state of the pneumogastric trunk may and does, in its upward course, affect various branches, as those of the stomach, liver, heart, lungs, and even ear, giving origin to symptoms characteristic of disorder of one or other, or of more than one, of these organs; and an attentive observer may remark that many of the symptoms in cases of spleen-disease are attributable to parts which receive branches from the pneumogastric nerve. In fact, one has only to bear in mind the distribution of the offsets from that nerve to be able to say where pains and other morbid phenomena will in one case or another make their appearance.

There can be no doubt, however, that the morbid influence of a diseased spleen is felt and given notice of, not only by the pneumogastric, but by the sympathetic and spinal twigs of the organ, and through these several of the associated morbid symptoms are produced, especially those that arise in the spine and walls of the body, and in part also those that belong to the viscera themselves.

It is certainly worthy of notice how *unilateral* were many of these sympathetic affections in the majority of the cases given. It was most commonly the left side of the dorsal region of the spine, the left side of the chest, the left side of the neck, the left-shoulder-tip, scapula and arm, the left ear, the left side of the head, in front or behind the ear—even the left loin and leg, at times—that were the seats of suffering. Does it not seem very probable that in these cases the spleen derived its nerve-supply from the left vagus? The morbid influence, be it irritation or inflammation, which in these and similar cases constitutes the essence of sympathy of one diseased organ with another, appears to be conveyed from organ to organ along the nerves of the same side of the body more easily and naturally than from half organ to half organ along the nerves that cross the median line of the body.

There appears to be little doubt that, like the columns of the spinal cord, as they pass downwards through the medulla oblongata from the brain, the fibres of the par vagum and of the sympathetic, as they pass to the viscera, in part decussate on the median line, some from the right passing to the left side, and others from the left going to the right side, whilst the majority hold on a straight course on their own side. But we do not find anywhere described transverse commissural fibres passing direct from half organ to half organ across the median line of the body—such, for instance, as exist in the anterior and posterior parts of the optic chiasma, connecting together both sides of the optic parts of the middle brain behind and the two retinæ in front. Now, between the eyes there appears to be a greater sympathy in disorder than between the halves of the other divided organs, perhaps on account of the direct nervous connection between the retina; and it is perhaps on account of the want of such direct commissural fibres that sympathetic disturbance extends more easily along the nerves of one side instead of crossing the median line.

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* See a paper on Shoulder-tip Pain in Liver-Diseases (Brit. Med. Journal, October 22nd, 1870).

Dr. Wheeler, R.N., formerly attached to the British Legation at Yedo, has been presented with a testimonial and a flattering address by the English residents on his removal to Yokolama.

RETRO-PHARYNGEAL ABSCESS.*

By MARTIN G. B. OXLEY, L.K.Q.C.P.,
Physician to the Liverpool Infirmary for Children.

Retro-pharyngeal abscess has been frequently and fully described, but cases of this disease are comparatively so rare and difficult to diagnose, that I think your time will not be wasted by my relating a case which has recently come under my notice, and also making a few remarks as to its nature and treatment. Dr. West, who mentions four cases which came under his observation—two being idiopathic, and the other two secondary to disease of the cervical vertebræ—has been able to find records of only twenty-six cases of this disease in children under ten years. Dr. Abercrombie, in the *Edinburgh Medical Journal* for 1819, under the head of cases of severe dyspnœa in children connected with a singular affection of the throat, relates three well marked cases of this disease. Dr. Fleming also, in the *Dublin Medical Journal* for 1840, under the heading—"Practical Observations on Peculiar Affections of the Throat, arising from Abscess between the Pharynx and Spine, and occurring in Children and Adults, exemplified by Cases", gives two examples of this complaint. Since then, attention has been drawn from time to time to this troublesome form of abscess by various writers.

The case which I am about to relate is as follows. E. M., aged two years, was admitted into the Liverpool Infirmary for Children on March 3rd, 1874, suffering from great difficulty of breathing. The mother stated that the child had scarlet fever five months before, and since then had not been doing well. Two weeks before admission, she noticed that the child held her head rather stiffly, and breathed badly at night. This difficulty of breathing gradually increased; and the night before she was brought to the Infirmary, the mother "thought she would choke every moment".

On admission, I found a strumous-looking child, with wasted limbs and enlarged cervical glands, labouring in her breathing, and making a croupy sound at each inspiration, but not seeming in very much distress, able to swallow and cry. I considered it at first sight to be a case of enlarged tonsils, but was unable to get a very good view of the throat, on account of the large quantity of tenacious mucus which filled the larynx. I ordered the throat to be swabbed out with a strong solution of nitrate of silver. The next day, there was slight improvement; and, on examination of the throat, nothing could be seen to account for the dyspnœa. The same treatment was continued for some days, the child in the meantime being neither better nor worse, and taking food comfortably. On the 14th, eleven days after admission, the general condition remaining the same, I examined the throat with my finger, and found, at the back of the pharynx, on the right side, a firm elastic swelling, nearly filling up the throat. This swelling I punctured with a bistoury, and evacuated a large quantity of healthy pus. This was followed by immediate improvement in the breathing. The child continued better for two days, when the breathing again became laborious; and, on examination with the finger, for it was impossible to see anything, I found that the abscess had refilled. I again punctured it, and each day afterwards, for a short time, I took the precaution of pressing on the wall of the pharynx from below upwards, so as to empty the abscess. This latter is a very necessary precaution, as the abscess is very apt to refill. Since that time, she has had pus evacuated from the enlarged glands on each side of the neck. I had to cut very deeply to reach matter which was perfectly healthy, containing no cheesy substance. She had shortly after this an attack of scarlet fever followed by dropsy, from which she has made a fair recovery. I suppose the attack called by the mother scarlet fever must have been measles.

Retro-pharyngeal abscess may arise idiopathically, or from caries of the cervical vertebræ, or as the sequela of acute exanthems. When it arises from disease of the spine, which is very rare, it is slower in its course, and there is often paralysis of the upper extremities. When it is idiopathic, or a sequela of scarlet fever or measles, it forms more rapidly, and gives rise to greater difficulty in swallowing and breathing. The diagnosis is extremely difficult unless one is on the look out for it, as ocular examination gives us little or no assistance in a young child. We must suspect it if a child have difficult breathing or dysphagia, and a croupy cough, and if it hold its head stiffly. We must feel with the finger, when, if we find an elastic swelling filling up the pharynx, we may be certain of the nature of the disease. The difficulty of breathing is always aggravated on lying down. The disease differs from croup in this particular, as also in its lasting longer without destroying life; the child is also able to cry, the voice not being as a rule interfered with;

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* Read before the Lancashire and Cheshire Branch.

inspiration is exceedingly difficult, while expiration is comparatively easy.

The treatment is simple, and ought to be prompt; viz., puncture with a bistoury guarded to near the tip with adhesive plaster. This should be followed up each day by firm pressure with the finger, in order to prevent the refilling of the abscess.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

Ergotin and its Preparations.—At a meeting of the Berlin Medical Society (*Allgemeine Medicin. Centralzeitung*, Nos. 35 and 36), Dr. Wernich made a communication on the preparations of ergotin. Those which are in use have certain disadvantages when used for subcutaneous injection: they readily cause abscesses, produce much pain, and the solutions are not pure and are preserved with difficulty. Dr. Wernich has endeavoured to obtain a clear soluble preparation, perfectly capable of absorption, and possessing none of the above mentioned disadvantages. The part of the action of ergotin on the system which first comes under observation in its therapeutic use, is its influence on the blood-pressure in the vessels, of which the action on the uterus is a secondary result. A test of the therapeutic applicability of a preparation of ergotin is the production of definite visible changes in the vessels; and, as objects for this purpose, Dr. Wernich recommends the mesentery, the lung, and the web of the foot, of a curarised frog. He uses a watery extract prepared from powdered ergot, which has been first deprived of all fatty matter by ether, and then treated with alcohol. This watery extract, though efficacious, contains impurities, from which it may be cleansed by diffusion through parchment-paper. It then forms a perfectly clear solution in water, of a brown colour. The preparation made in this way is efficacious, and, in consequence of its purity, is preferable for subcutaneous injection: it keeps well, and does not produce pain.

Dry Cupping in Puerperal Convulsions, etc.—Dr. Washington (*Nashville Journal*, October 1873) details a case in which he immediately stopped puerperal convulsions by the vigorous use of dry cups, applied near the spine. Further, he says he has often used the same agent to bring on uterine pains in tedious labours; to cut short the sympathetic disturbances of pregnancy; to cure neuralgia, sick headache, total paralysis of the arm from gunshot-wounds, and cases of tetter of twenty and thirty years' duration.

OBSTETRICS.

The Normal Temperature, Pulse and Respiration of Puerperal Women.—Dr. G. W. Linn (*Philadelphia Medical Times*, May 9th, 1874) has made careful observation, in Philadelphia Hospital, of twenty-five cases which were in every respect normal. He gives the following conclusions: 1. The normal temperature of the puerperal woman is only about 0.6 deg. Fahr. higher than that of the healthy human being, if we accept the statement of Wunderlich that the mean normal temperature is 98.6 deg. Fahr.; 2. The normal pulse of the puerperal woman is not more frequent than that found under ordinary conditions in a state of perfect health; 3. The number of respirations is increased, if the statement of physiologists be received that the number of respirations of the healthy woman ranges from eighteen to twenty per minute; 4. The generally received opinion that the secretion of milk is attended by an increase of temperature of one or more degrees and an increase in the frequency of the pulse of ten or twelve beats per minute, is erroneous; 5. A temperature of 100 deg. Fahr. or a pulse of one hundred per minute in the lying-in woman is indicative of some pathological process which it behoves the accoucheur to discover at once, in order that proper measures may be taken to arrest its development and remove the evil.

Herpes Gestationis.—The peculiar features of this remarkable disease are summed up by Dr. Bulkley, in the *American Journal of Obstetrics*, February 1874, as follows. 1. It is an affection of the skin directly dependent upon the gravid state of the uterus, which may make its appearance at any period of gestation up to the seventh month. It generally continues until the organ is emptied of its contents, and has in a measure resumed its former state. It is very apt to recur at each successive conception. 2. The cutaneous manifestations are chiefly an intense irritation consisting of burning, itching, or stinging, and sometimes pains, with the development of erythema, papules, vesicles, and bullæ up to the size of a hen's egg. These vesicles are commonly in groups, do not follow any definite nerve-tracks, appear first on the extremities, and afterwards involve the larger part of the body. Exhaustion may ensue from cutaneous irritation, but the disease is nonfebrile. 3. The disease does not terminate at once after delivery, but slowly retrogrades. It is rare that any manifestation of the disease remains longer than a month after parturition. 4. It is sometimes accompanied or followed by other neurotic manifestations, as erythema, urticaria, and neuralgia. 5. This eruption has occasionally been the first indication that impregnation has taken place. 6. The majority of cases have been uninfluenced by treatment, relief occurring only on the emptying of the uterus. 7. The children are not as a rule affected by the eruption in the mother. The indications for treatment are for soothing antipruritic local applications and powerful tonics, especially those directed to the nervous system.

MEDICINE.

Inflammation of Joints after Diarrhœa.—During the abatement of an epidemic of diarrhœa which prevailed in the district of Minden in the latter part of the summer and in the autumn of 1872, Rapmund (*Deutsche Klinik*, No. 17, 1874) observed six convalescents, who, after exposure to cold or exertion, had acute articular inflammation. It always began in one knee or in both, and was either limited to this joint or attacked also the ankle; in one woman only, who had suffered from acute articular rheumatism eight years previously, both wrists were affected. In all the cases, improvement soon followed the use of appropriate treatment. There were no perspirations or complications, such as occur in acute articular rheumatism. These six cases were the only ones in which the affection of the joints was noticed in about four hundred cases of diarrhœa. Rapmund refers to other observations of the kind made by Braun (1833 and 1834) and Kräuter (1871), but overlooks those related by Hütte (*Centralblatt*, 1869).

Apoplectiform Deafness.—Dr. S. M. Burnett (*Nashville Medical and Surgical Journal*, May 1874), from an interesting discussion of Menière's disease, deduces the following conclusions. 1. There is a series of symptoms comprising cerebral disturbance, nausea and vomiting, vertigo, loss of power of controlling equilibrium, deranged movement, tinnitus aurium, and impairment or destruction of hearing power. All these in their totality constitute the disease. 2. From the small number of *post mortem* examinations, we have no accurate knowledge of the exact pathological lesions. The facts already observed warrant us in considering it an extravasation, either hæmorrhagic or serous; and in the large majority of cases it is more or less sudden. The name *apoplectiform deafness* is accepted as most expressive of the accepted pathology. 3. The lesions are seated primarily in the auditory nervous apparatus. 4. In some cases, we can locate the lesions in the cochlea. 5. Lesion of the semicircular canals is followed by vertigo, deranged muscular action, and inability to control bodily equilibrium. Facts seem to show that these manifestations are reflex in character.

Relations of the Abdominal Branches of the Pneumogastrics to the Treatment of Gastritis, Diarrhœa, etc.—Dr. H. C. Hand, in the *Northwestern Medical and Surgical Journal*, May 1874, presents some considerations on this topic. He shows by quotation and experiment that the vaso-motor nerves are to be reached only through the sympathetic system; that their function is to reduce the size of the blood-vessels; that their stimulation diminishes the heat, colour, and functional activity of a part; that their paralysis by section dilates the capillaries, produces in the liver diabetes, and in the intestines a copious watery secretion. On the other hand, section of the pneumogastrics produces a directly opposite effect on the liver, stomach, and intestines, from section of the sympathetic—viz., contraction of the vessels, paleness of the mucous membrane, and diminution or abolishment of secretion, while their stimulation is followed by at least some of the phenomena produced by section of the sympathetic, *e. g.*, diabetes. In cases of prolonged and severe vomiting, he applied pressure on one of the vagi. The vomiting stopped, and the patients grew better or were entirely relieved. He suggests that pressure upon the vagi would probably relieve cases of serous diarrhœa. Since the right vagus is distributed mostly to the small intestines, and the left to the stomach, it would seem probable that pressure upon the right would be most effective in diarrhœa, and upon the left for vomiting, etc., in gastritis. He suggests that a cone of ice might be substituted for pressure, if the latter were not appropriate. This pressure is most conveniently applied in the neck just below the angle of the jaw, the pulsation of the carotid supplying the best guide to the course of the nerve.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 19TH, 1874.

ALCOHOLISM IN THE UPPER CLASSES.

THE question of alcoholism, which of late years has given rise to many and important researches, is still far from being exhausted. The cases which afforded the principal materials for these researches having, however, for the most part come from the classes which fill hospitals and refuges, the general characteristics of this affection have doubtless been brought under observation, but some special features may have escaped notice; especially as regards the effects of alcoholism upon the classes enjoying easy circumstances, by reason of the conditions of hygiene and of alimentation under which they habitually live.

M. Leudet of Rouen has made a number of observations on these points amongst his private patients, the results of which he laid before the scientific congress which has just been held at Lille. In this memoir, published in the *Gazette des Hôpitaux* of September 12th, the first point to which he calls attention is the frequent occurrence of alcoholism in the wealthy classes, and the difficulty of diagnosing it when the attention is not drawn directly to this point. He has pointed out, as the principal characteristics of this state, dyspeptic troubles, ulcers of the stomach, alternately appearing and disappearing until profuse intestinal hæmorrhage or hæmatemesis discloses the gravity of the situation; alcoholic icterus, and affections of the liver, specially cirrhosis, which show themselves much more frequently in rich men than in workmen; persistent diarrhœa; paralytic affections; singular hyperæsthetic phenomena, often wrongly ascribed to rheumatism; and finally gout, to which an indubitable impulse is given by alcoholic excesses.

In a work entitled *La Clinique Médicale de l'Hôtel-Dieu de Rouen*, lately published, M. Leudet devotes a chapter to a semeiological study of the inflammatory affections of the liver developed by the influence of alcoholic drinks. He describes the differences which he has discovered in lesions of the liver, according to the social position and hygienic and alimentary habits of the patients. The facts which he collected were frequently obtained under special conditions. A certain number of patients belonging to the working class were in the habit of taking daily a large amount of alcoholic drink, and, at more or less protracted intervals, committed enormous excesses, when the quantity of brandy drunk in the space of a few hours sometimes amounted to from one to two-and-a-half pints. As a rule, these persons were not well fed. In other cases, the use of alcoholic drinks was constant; the quantity of liquid consumed was always considerable, but scarcely ever varied in amount; and the nourishment taken was sufficient in quantity and of good quality. Thus, on the one hand, there was the habitual absorption of considerable quantities of alcohol, sometimes increased to enormous amounts, with sometimes insufficient or bad food—conditions which favoured the development of changes in the mucous membrane of the digestive canal and in the liver. On the other hand, there was constant and considerable use of alcoholic stimulants, almost unvarying in quantity, with sufficient and good food. In the latter cases, the most obvious forms of interstitial inflammation of the hepatic gland were observed, accompanied by trifling disturbances of the gastro-intestinal mucous membrane. It is these differences in the general hygienic conditions of the alcoholised patients which explain how some, more especially the members of the better classes, resist the deleterious action of the toxic agent for a longer time; while other persons, belonging to the working classes, fall more or less rapidly into a state of cachexia.

The influence of climate has also been called in to account for the changes in the liver in drinkers. M. Leudet, however, without denying the share which climate may have in the matter, has been induced to believe that the differences put down to this account rather appertain to the quality and kind of the alcoholic drink in use by the different populations. Thus, if fatty degeneration of the liver is more common in the United States than it is in England, according to the researches of Dr. Peter of New York, whilst, on the contrary, cirrhosis is more common in England than in that city, M. Leudet believes that this difference arises from the fact that the Americans principally drink rum and brandy, while the English drink gin. He says that at Rouen, where the consumption of gin amongst all classes of society is exceptionally large, inflammation of the liver is much more common than fatty degeneration, if the cases of cachexia be taken out of the calculation. These facts would tend to support what has been advanced relative to the influence of the amount of alcohol ingested on the production of lesions of the liver. Thus, while wine and beer have but a very slight tendency to produce diseases of the liver, alcohol taken in the form of spirituous liquors is most deleterious in this respect. M. Leudet has reported a very remarkable example of the action thus exercised by alcohol, in a memoir printed in the *Transactions of the Société de Biologie* for 1860, under the title of "Researches on Icterus brought on by the Abuse of Alcoholic Liquors". It refers to the case of a man aged 39, who, immediately after drinking a glass of very strong alcoholic liquor, had an attack of intoxication lasting three days, followed by serious gastric disturbance, and six days afterwards by an attack of icterus, which terminated in death. A *post mortem* examination revealed the existence of ulcers of the stomach, and of acute atrophy of the liver resembling that form designated by Frerichs diffuse hepatitis. Some analogous facts are reported in the same work, tending to show that, in individuals who use spirituous liquors in excess, changes in the liver make their appearance at somewhat varying periods of the alcoholic dyscrasia; and that their semeiological expression likewise varies according as the inflammation with cellular hyperplasia is simple, or complicated with degenerative lesions of the cellular element of the liver or with lesions of other organs.

THE PHYSIOLOGY OF THE KIDNEY.

M. CHARCOT, in a lecture on the Physiology of the Kidney (*Le Progrès Médical*, No. 36), refers to some experiments recently performed by M. Heidenhain, the result of which has been to confirm in a remarkable degree Bowman's well known theory of the function of the Malpighian bodies and of the convoluted tubes respectively. Bowman believes that, while the Malpighian bodies are the main outlets for the watery part of the urinary secretion, the peculiar solids of the urine are secreted by the gland-cells which line the convoluted tubes. In opposition to this theory, Ludwig and others suppose that all the constituents of the urine are secreted in a very diluted state by the Malpighian bodies alone, while the function of the tubular portions of the kidney is to absorb the excess of water. It has always appeared to us that, while Bowman's theory is consistent with the anatomical facts, the theory of Ludwig is consistent neither with facts nor with physiological analogies. M. Heidenhain's experiments, as we have said, are confirmatory of Bowman's theory. The living kidney has a strong affinity for indigo; so that, when an alkaline solution of sulphate of indigo has been injected into the blood of a living animal, the urine and the kidneys quickly become tinged by the colouring matter. By varying the conditions of the experiment, M. Heidenhain found that he could determine the exact part of the glandular structure by which the colouring matter of the indigo was excreted.

The effect of dividing the spinal cord below the medulla oblongata, while artificial respiration is performed, is to cause complete suppression of urine; but sulphate of indigo, having been injected into the blood, is found to have given a blue tinge to the convoluted tubes, while the Malpighian bodies and the straight tubes remain untinged. The colouring matter of the indigo is found in those portions of the kidney which are believed to perform the true excretory function. But the analysis was carried further. If the animal were killed ten minutes after the injection of indigo into the blood, the colouring matter was found only in the cells of the convoluted tubes, while the clear canals within the tubes were free from colour; but, if an hour or more had elapsed before the death of the animal, the colour was found to have passed from the gland-cells into the canals of the tubes, where, in the absence of water to remove it, it formed a crystalline deposit.

M. Heidenhain performed other experiments with similar results. Thus the effect of ligaturing the ureter is to cause complete suppression of urine. If, after this result has been obtained, indigo be injected into the blood, the gland-cells of the convoluted tubes become tinged precisely as in the experiment before described. These experiments show that the secretion of the colouring matter by the kidney takes place when the watery secretion is suppressed; and this separation of the colouring matter is effected by the gland-cells which line the convoluted tubes. It is in the highest degree probable that the solids of the urine are secreted in like manner by the same cells. M. Heidenhain found that, after the injection into the blood of a concentrated solution of urate of soda, the salt was deposited in the form of yellow granules within the convoluted tubes, while the Malpighian bodies contained no trace of the deposit. This result of injecting urate of soda is analogous to what is normally found in birds, whose urine is mainly composed of granules of urate of soda; and Von Wittich has observed that, while the granular salt may be found within the gland-cells of the convoluted tubes, the granules are never seen within the Malpighian bodies.

These experiments render it in the highest degree probable that, while the specific urinary constituents are secreted by the gland-cells which line the convoluted tubes, the Malpighian bodies pour out water to flush the tubes, and the straight tubes of the medullary portion of the kidney act as conduits for the urine which has been secreted in the cortical portion of the gland.

THE HOSPITAL SATURDAY MOVEMENT.

The promoters of the Hospital Saturday movement continue to hold meetings, in order to instruct the working classes on the subject, and to organise them with a view to the forthcoming collections. On Saturday last three such meetings were held in different parts of the metropolis. At one of these the chairman is reported to have spoken "at some length upon the opportunity now given to the working men of refuting the objectionable term 'charity' which has hitherto always been thrust upon them in connection with relief from the hospitals. If they themselves helped to support those institutions, they would also be entitled to a voice in their management."

This question, to which we have already adverted, is a most important one; and it is one which the governing bodies of the subscription hospitals, and also their medical officers, would do well to consider before they accept a subsidy from the Hospital Saturday Fund. Hitherto the hospitals have gloried in their "charity". It has been their noblest claim to support; and in all the reforms which we have wished to see introduced into the out-patient departments, we have always insisted that the hospitals should continue to be charitable institutions. We have maintained that there *is* a class of the community, though a much more limited class than is commonly supposed, to whom the hand of medical charity ought to be occasionally extended. But the artizans are now called upon to refute the idea of their depending on such charity. It is well that they should do so. It is well that they should contribute, as they are abundantly able to do, to their own medical relief. But how can the hospitals receive money from them on the terms they propose? The money so given will be paid for an equivalent in medical attendance, which the donors expect to receive; and the hospitals, as far as they accept such subsidies, *ipso facto* convert themselves into benefit-clubs. This is a radical change—a change of principle. Will the charters, will the foundation deeds allow such a change? Will the governors sanction it? Will the medical staff work under it? Just in so far as the Hospital Saturday movement succeeds in "refuting the objectionable term 'charity'", it will convert the hospitals into benefit societies. And if they cease to be charities, they cannot expect the medical officers to give gratuitous services. Indeed, as we have often pointed out, these gratuitous services are already stretched to an unreasonable extent; and if the charitable character of the hospitals is to be impaired, and the benefit-club system introduced, there must be a corresponding alteration in the position of the physicians and surgeons.

The artizans, as we have said, do well to contribute to their own medical relief. The feeling which prompts them so to do is a right feeling, and we should be sorry to discourage it. Indeed, this is a point upon which we have often insisted. But to make a workshop collection, and to distribute the money among the hospitals, is not the way to proceed. This can but lead to disappointment and further abuse. There are only two methods by which the working class can obtain, through their own contributions, the hospital attendance they desire. These are, either the establishment of provident dispensaries, affiliated to hospitals, or so influencing public opinion as to induce the governors of hospitals to place their out-patient departments upon the provident footing, as has been successfully done at Devonport.

A severe outbreak of scarlatina has occurred at Newark, where, in a population of less than twelve thousand, sixteen or seventeen deaths are occurring weekly from that disease.

The following gentlemen are said to be intending candidates for the professorship of Zoology and Comparative Anatomy, now vacant in University College, London; Mr. E. Ray Lankester, Dr. J. Murie, and Mr. H. Seeley.

The Bishop of Exeter has fixed the first Sunday in Advent (November 29) for collections to be made throughout his diocese on behalf of the Devon and Exeter Hospital. The hospital anniversary dinner is also to be revived.

The medical profession of America have combined to erect a memorial statue in honour of Dr. Ephraim McDowell of Kentucky, to whom is ascribed the merit of having been the first to practise ovariotomy. The appeal is addressed specially to women in all parts of the world. Subscriptions are received by Dr. James McKeller, 58, Green Street, Louisville, Kentucky.

DEATH FROM HYDRATE OF CHLORAL.

Dr. Hardwicke, the deputy coroner for Middlesex, held an inquest three days ago on the body of Mr. Charles Dawson, a law student, who died in consequence of taking an overdose of hydrate of chloral, which he had taken for the purpose of inducing sleep. Mr. Lucas, resident medical officer of Middlesex Hospital, stated that the deceased was admitted by Mr. Sidney Coupland, and expired six hours afterwards. Witness received from him a bottle containing "Improved Syrup of Chloral-Hydrate". The *post mortem* examination showed that the left ventricle of the heart was in a state of fibrous growth, which destroyed the muscular tissue, and there was also the remains of old peritonitis. The cause of death was the condition of the heart, accelerated by taking a dose of chloral. A rough analysis was made, which showed that the preparation was weaker than the usual strength sold by chemists and druggists. The jury returned a verdict of "Death from heart-disease, accelerated by taking a dose of hydrate of chloral, which was uncertain in its action".

ARTIFICIAL BUTTER.

MR. FLOWERS, the Worship Street magistrate, has had lately under his inspection a new article of diet, named by its concoctors "butterein". A firkin of it was alleged to have been stolen from a cart, and the owner was called upon in court for a description of its composition. He alleged that it was used by confectioners, who paid sixpence halfpenny per pound for it. Mr. Flowers characterised the stuff as not fit to be sold, and dismissed the summons for stealing it.

HYDROPHOBIA IN MADRID.

A CORRESPONDENT in Madrid writes, a few days ago:—Hydrophobia is almost an epidemic in this city now. Nine or ten deaths are known to have occurred up till yesterday. I wrote four weeks ago a warning letter to the "Ayuntamiento", or Municipal Body, through the *Correspondencia*, and only yesterday they took the matter up and killed the first batch of stray filthy curs that infest our streets. At this moment, I have four cases.

DEATH WITHOUT MEDICAL ATTENDANCE.

MR. JOHN FOX, medical officer of health for the Cockermouth Union, draws special attention to the fact that five deaths had been registered in his district—"No medical attendant, cause of death unknown." Of the five deaths referred to, two were of illegitimate children, and it is generally that class of children who are thus neglected.

"In this class", says Mr. Fox, "where life was a manifest incumbrance and an inconvenience, the usual safeguards were dispensed with. It remains for this authority and the public to judge whether a kind of negative infanticide—an infanticide not positively aimed at but negatively, passively, or ignorantly brought about—is not the result. The non-use of the accredited means to save life, on whichever side design may lie, is only one remove from the actual employment of the weapons of destruction. The consequence indeed is the same. And what it is more to the purpose of this authority to observe is, that if the state of the law admits any facilities for riddance of inconvenient existences, then the law and the administrators of it become, in that degree, a party to and responsible for every fatal result."

Mr. Fox concludes his reports as follows.

"I conceive it is my duty strictly to examine into, and carefully to report such cases. It is confessedly the intention of the law that the cause of death should in every instance be recorded as certified by the medical man in attendance. This registration forms not only a dictionary of valuable statistical knowledge, but is also a source of security to the sick, and of satisfaction to the public. It is very much to be desired that all should willingly, without further interference, conform to the spirit and intention of the law. But those should especially see the importance and benefit of doing so who are tending relatives whom, from circumstances of birth or otherwise, they might be suspected of not being unwilling to get rid of. At any rate, those who neglect any usual steps which would remove all ground of complaint will find the Public Health Department ready to hold up to public scrutiny every such case as it occurs. Such facts will influence and define the public sentiment; and a definite public opinion will lead to an alteration of the law, if a defect be found to exist."

GRANTHAM MEDICAL CLUB.

THE *Times* of the 7th instant contains a paragraph, which will be read with interest by all who desire to see the further development of medical provident institutions. The Suffolk correspondent, writing from Ipswich, is alluding to the labourers strike, which has lately attracted so much attention to the eastern counties, and advocating that people should be taught to do as much as possible for themselves, and to depend as little as possible upon the bounty of others. Very early in his wanderings through Suffolk, he says, after hearing the stories of frequent resort to the farm-house, or, still worse, to the union, for medical relief, he was led to ask himself whether, among farm-labourers, as among other classes of workpeople, medical advice and medicine might not be obtained upon co-operative principles; and he proceeds to call attention to a medical provident society which already exists in the Grantham Union, and which is a very successful example of what may be done by these means. In this society there are no fewer than 4,577 subscribing members. "The annual rate of payment is, for each person above sixteen years of age, 2s. 6d.; under sixteen, 1s. 6d.; under thirteen, 1s. There is no extra payment for families exceeding five in number, and each midwifery case is charged 6s. The medical men receive increased payments upon these rates from the subscriptions of honorary members. Subscribing members may choose any of the doctors who belong to the club, but must consult the same one for a year. If a member be unable to attend at the surgery, he is visited at his own house; and the last published Report shows that the nine medical men retained by the club together received in the year from this source £689. Such are the particulars of this medical club furnished by Sir Edward Kerrison. That it must have some effect in diminishing the rates, is certain; and statistics show that, in the Grantham Union, the average cost of poor-relief per head of the population in the year ending Lady Day 1872 was as low as 7s. 9d.; while in two other Lincolnshire Unions—Spilsby and Bourne—it was respectively 10s. and 9s. 2d.; and in two Suffolk Unions—Sudbury and Hoxne—it was 10s. 10d. and 11s. Probably the lower rates in the more northern county are largely due to higher wages. The more scattered population of Suffolk may also increase the difficulty of establishing medical clubs; but it must be possible to do something towards starting such clubs; and, apart from their effect in reducing poor-rates, they would do still more to make the labouring population self-reliant. There is no reason why farm-labourers should be beholden to the parish for medical aid. Early and improvident marriages in agricultural districts, as Sir Edward Kerrison says, make doctors' bills soon appear a serious item in the expenditure of a poor man's family; and therefore the temptation is great to sacrifice independence by obtaining a medical order. The charges for a surgeon's visit in a case of continued sickness are a heavy drain upon a labourer's resources; they are, in fact, more than he can bear. On the other hand, it is, from every point of view, important to discourage the beginning of pauperism, which, I fancy, very often does begin with the application for medical relief. Once begun, the downward process is easy; and, when once pauperised, though but partially, the taint become hereditary, is passed on from generation to generation, and is most difficult to extirpate. It would be of signal public advantage to give the labourer the means of obtaining cheap medical advice mainly by his own contributions and through the power of numbers; and one advantage of trade-unionism is, that it paves the way for such co-operation by showing these men what association will do for them." In these sentiments we fully concur, and we trust the letter will receive the attention which it deserves. The rate of payment quoted above is, no doubt, very low; but then the scale of wages in the agricultural districts is also low. If a medical club can be successfully carried on in the Grantham Union, there can be no reason why similar societies should not flourish all over the country; and, if they are found to answer among farm-labourers, *à fortiori*, they must be still better adapted to the higher grades of the industrial classes.

FRUIT-KERNELS POISONOUS.

THE following case, which is reported in the *Australian Medical Journal*, calls attention to a source of danger which is often overlooked; viz., that the kernels of some stone-fruits (peaches, perhaps, more than any others) contain the material for the formation of hydrocyanic acid to a great extent, and may, if eaten in any quantity, produce very serious effects. The case is reported by Dr. W. R. G. Samuels of Wanganui, New Zealand. He says:

"I was sent for to attend a little boy aged five years, the son of a carpenter of this town. On my way, I was informed that the little fellow had eaten something unknown to his parents, and was believed to have been poisoned. On my arrival, I found him lying on the sofa in a state of partial coma. The pupils were dilated, the skin somewhat cold and clammy, the pulse feeble. He seemed, in short, to be suffering from the effects of some narcotic poison. Upon making inquiries, I was informed that, about half an hour previous to my arrival, he had been seized with dizziness, stupor, fainting, inability to stand without assistance; in fact, it was described to me as partial intoxication. He vomited one ounce or more of masticated peach-kernels. I at once administered an emetic, followed shortly by a full dose of castor-oil, which soon acted on the bowels. I ordered him to be kept warm. After being placed in bed, he slept for about two hours, after which he awoke and seemed recovered. This was obviously a case of poisoning by hydrocyanic acid contained in the peach-kernels, of which the child had eaten a large quantity."

A CRUDE RELIC OF THE PAST.

THE Railway Commissioners of Massachusetts have had the subject of railway whistles under their consideration, complaints having been made of the nuisance by the citizens. The Commissioners find that it is questionable whether, in its effects on invalids and horses, such frequent annoying whistling does not occasion a greater loss of life than would ensue from its total suppression. They regard it as "a singular relic of the crude expedients employed in the past", that the companies should disturb whole communities in order to attract the attention of their own servants.

A PHILADELPHIA DIPLOMA.

MR. LEVY FARNDON, of Bramley Road, Notting Hill, was summoned lately before Mr. Bridge at the Hammersmith Police Court, for falsely pretending that he was recognised by law as a practitioner in medicine. Mr. Claydon, who supported the summons on behalf of the Kensington Board of Guardians, said the penalty under the Medical Act was £20. He referred also to the Vaccination Act, which stated, in the interpretation-clause, that "medical practitioner" should mean "registered medical practitioner". The defendant gave a certificate, stating that a child was not in a fit state to be vaccinated. It was signed by the defendant, who placed the letters "M.D." after his name, and "P.A." underneath it. Mr. Johnson, who defended, said the question was whether the certificate was given under false representations. He should show that the letters "P.A." meant Philadelphia, and that the defendant had a diploma from that place. Mr. Claydon argued that the certificate was signed as a medical practitioner. Mrs. Elizabeth Keen was called, and said the defendant had been attending her child. He gave her the certificate and a bottle of medicine. He did not charge for the certificate. He told her, some days before, that he was not registered in England, but had an American diploma. In giving his decision, Mr. Bridge said that it appeared that diplomas were granted by some universities in America to persons who did not go there. In the summons before him the defendant was charged with unlawfully pretending to take the title of a physician, but the statute applied to a person pretending to be registered under the Act. It did not make it an offence for an unqualified person to be a practitioner, but those who pretended that they were registered. In this case the defendant did not pretend that he was registered; on the contrary, he told the mother that he was not. The certificate was of no value, as the parent was obliged to have the child vaccinated by a registered medical practitioner. The Board of Guardians in future should place a *Medical Register* in the hands of the officer, who could then ascertain whether a certificate was of any value or not.—Mr. Shattock, the officer appointed under the Vaccination Act for Kensington, applied to the magistrate to state a case for the opinion of a superior court.—Mr. Bridge said he would grant a case.

THE TREATMENT OF STAMMERING.

THE treatment of this affection of the speech has lately attracted considerable attention in France, and several methods have been proposed for the purpose. The prefect of the Seine has thought the subject of sufficient importance to induce him to ask the Paris Academy of Medicine to examine and report on a method of treating stammering, originated by M. Chervin, the founder and director of the Institution for Stammering in that city. Accordingly, a commission, composed of MM. Baillarger, Bouvier, Hervez de Chégoin, and Moutard-Martin, after having carefully examined fifteen cases of stammering both before and after treatment, have arrived at the conclusion that M. Chervin's treatment of this affection is founded on rational principles, that it produces very remarkable results, and may possess the utility claimed for it. One of its great advantages is stated by the commission to be the promptitude of its results, which also appear to be permanent, in the cases brought under their notice. M. Moutard-Martin's report shows the striking resemblance between the ordinary treatment of chorea and M. Chervin's system of treating stammering. In fact, stammering is owing to a kind of chorea of the muscles of respiration and phonation. The means of putting an end to the chorea of the expiratory and inspiratory muscles, by performing a slow and measured kind of respiratory exercise, forms the first portion of M. Chervin's treatment. In the same way it combats the irregular movements of the tongue and lips by a muscular exercise of these organs. The Chervin method is, therefore, a thoroughly rational one. We learn from the report that the treatment commences by respiratory exercises in which the stammerer, whilst regulating the respiratory rhythm, also learns how to pitch his voice. Afterwards come exercises in pronouncing the vowels, which, properly spreaking, begin the exercise of the organs of articular phonation. Finally, the demonstration of the functions which properly belong to the tongue and lips and of the form which the mouth ought to take during the emission of each letter of the alphabet, terminate the series of exercises on this principle. To these primary exercises, succeed the coupling of the letters, vowels and consonants, in the various respective positions proper to them; finally, words and phrases, with their proper intonation and expression. This system is, therefore, a training exercise of the organs of speech, in which the remarkable results are not so much due to the so-called muscular exercise as to the attention and precision which are evinced at all the exercises. Success depends on the effort made by the volition of the patient to precisely reproduce such and such a movement, and it is necessary that the will of the professor should succeed in guiding the power of volition of the patient, who is impotent to co-ordinate the movements commanded. This is the great secret of the remarkable results obtained by M. Chervin.

AN AMERICAN OBITUARY.

AMERICAN medical literature is gradually sobering down to the level of the old continent, and a good deal of it might pass for a transplanted Anglo-German product; but some is still racy of the soil. The most characteristic serial which comes under our notice is the *Nashville Journal of Medicine*, which, for a combination of high-falutin tall talk dashed with a shade of rowdyism, is not to be surpassed. We wish we had space to transfer some recent papers on the Cholera at Nashville by one of the editors. Never was wilder nonsense expressed in quainter guise. An obituary in the current number of the late Professor of Anatomy in the University of Nashville, and the leading practitioner of the place, gives a very good example of this peculiar style. We make the following extract.

"As a practitioner, no man ever so lorded it over his patients. He had the knack of making them feel that he was their master, and held their lives in his hand. Profoundly hobby-horsical, he would run the same prescription for all patients so long as there was life in it or them. One apothecary here made a 'start in life' by making pills and powders for him of ipecac and calomel; then it would be cream and nitrate of silver, with Banning's brace for a season. At fifty, he was a fine-looking man. He was not so large as he seemed; he almost always wore a number of shirts—one of flannel next to the skin, one of buckskin, and a dress-shirt. His feet were similarly protected. A highly accomplished lady told the writer he was the most fascinating man she ever saw. He was extremely pleasant in conversation when there was no use for the wits, Shakespeare, or maxims. He parried good-humouredly every thrust that was made at him, with the single word 'jealousy'; had as little to with his medical brethren as possible. For a while the fashion was, during the winter season, for the brethren to give pill-box parties to each other once a week. Dr. J. was never present. In consultation his hobby was 'depuration' and 'elimination', and calomel was the man; but he would not take it himself. Having a severe Louisiana fever in 1861, where calomel seemed strongly indicated, he would n't touch it, nor, indeed, any 'strong medicine'. 'Elimination' was suggested, but he scouted elimination. The war swept his Louisiana merchants, and his Louisiana labour and products; and it was distressing to witness this Lord Governor of

Medicine contending for the place, and getting it, over a promising young man, of Physician to the Workhouse, with a salary of three hundred dollars a year."

THE RAILWAY ACCIDENT NEAR NORWICH.

THE terrible accident which occurred last week at Thorpe possesses a special interest for members of our Association, from the fact that two gentlemen who took a prominent part in the preparation for, and proceedings of, the Annual Meeting held in Norwich, were among the passengers. One, Dr. Eade, the President of the Section of Medicine, was thrown out of the train, and received some cuts and bruises; but, we are happy to say, his injuries were but slight. He has contributed to this week's JOURNAL a graphic account of his experience during the accident, in a letter which is published at page 381. The other gentleman was Mr. Bransby Francis, to whom, as Secretary of the Excursion Committee, many members were indebted for much social enjoyment during their visit to Norwich. He has sustained very severe injuries, having five ribs and a thigh-bone fractured. On Wednesday, his condition was apparently hopeless; but we are glad to learn from a telegram received at the time of going to press, that he was distinctly better on Thursday. The surviving sufferers at the Norfolk and Norwich Hospital were doing well on Wednesday.

SCARLET FEVER AND SMALL-POX.

THE Registrar-General states that "scarlet fever and small-pox continue fatally prevalent in Birmingham, and that scarlet fever caused 63 deaths in Liverpool last week". In London during last week 1,209 deaths from all causes were registered, being 261 below the average. The deaths from the seven principal zymotic diseases in the metropolis were 213, being 185 below the corrected average number from the same diseases in the corresponding week of the last ten years; and, excepting an excess in the fatal cases of scarlet fever, the deaths from each of these diseases were below the average. Not one death from small-pox was registered in London; but 87 fatal cases of scarlet fever were recorded, of which 44 occurred in the east group of districts. Although the mortality from scarlatina is on the increase, it is satisfactory to learn that "the deaths from measles and whooping-cough in London are just now exceptionally low".

MILITARY HOSPITALS.

A CORRESPONDENT in a contemporary speaks of the want of hospitals from which the Guards suffer. He says: "It has come to my knowledge within the last few days that, when the wives and children of schoolmasters and soldiers (the former in many instances being men of high attainments and refinement, whose children are tenderly nurtured) are suffering from any contagious disease, an order is issued by the relieving officer of the parish, whereon the patient is described as a 'pauper', and he or she is removed to some suburban hospital, miles from all friends or relations. This is cruelty of the most refined description. Not content with taking the sufferer away, both he and his parents are branded as paupers."

MEDICAL SCIENCE (?) IN SPAIN.

A CORRESPONDENT writing from Madrid gives an account of a few of his patients, and the course of treatment to which they had been subjected prior to having consulted him. He says that one of the prescribers of the nastinesses described is an ex-Court physician, and that another fills a professorial chair.

CASE I.—D. F. L., aged 35, having chronic articular rheumatism, was ordered nine days' baths of Archena; after that, to observe the "Cuarenteña" (or forty days); to take no medicine whatever. Being worse than ever at the end of that period, he was ordered friction all over the body with a slush composed of equal parts of smashed earthworms, rancid oil, and putrid mule's dung, to be applied assiduously for the mysterious nine days, night and morning.

CASE II.—Señora B. de L., a "noble lady", aged 32, recently confined, had a small abscess of the left breast. She was attended by an ex-Court physician, who, when he had exhausted all his remedial skill, ordered a poultice three times a day of white pigeon's dung; saying that, if that did not cure her, nothing else would.

CASE III.—Doña Franceña A., aged 23, had been treated for dyspepsia with amenorrhœa for ten months. Her last prescription was "nine days'" poultices of fresh human excrement. She could only endure this disgusting barbarism two days.

CASE IV.—Eulogia G., a servant-girl, aged 19, had chronic diarrhœa, and was ordered to take a tumblerful of child's urine every morning fasting for nine days. She could take such a dose only three days.

CASE V.—Pablo Insari, aged 30, plasterer, had had six months' doctoring for heart-disease following rheumatism. The last prescription was a newly killed pigeon split open down the middle and applied over the left chest for "nine days", and to go to work.

CASE VI.—Señor Don M. H., mine-proprietor, aged 39, had cardiac dropsy. His last prescription was, a sheep to be killed daily, and the skin with the wool on to be wrapped round the body tightly.

CASE VII is, perhaps, the strangest and most ridiculous of all. Miss S. A., an American lady, sent for me, and said, "Doctor, I 've got the gripes for the last two or three days; and yesterday, feeling no better, according to a notion in my country (Pittsburg), I took eight or ten black pepper-corns, wrapped them up in a piece of your London *Times* (they must be swallowed in printed paper). I guess that they have stuck somewhere, and I feel awful bad; and I want you to give me something right off to get me rid of them pepper-corns and your English paper. Had I only got the *New York Herald*, they would have gone slick down." A small dose of castor oil shortly set her right.

By way of confirmatory evidence, our correspondent gives the following literal translation of a paragraph in the *Correspondencia* journal.

"In the slaughter-house of Madrid, which is under Government supervision, there is being committed a repugnant abuse, which, for the sake of health and of public decency, and at the request of many persons, we denounce to the Señor Alcalde (Chief Civil Magistrate) of this city. In the above named establishment, they consent or permit that the sick, with arms and legs at times full of ulcers and wounds, to lie inside the carcases of animals while hardly yet dead. Apart from the horror and disgust that this produces in the persons that witness these things, it might produce disastrous effects on the public health; and we doubt not that such scandalous acts will have an efficacious and prompt correction. We shall be on the look out about this matter."

UNFOUNDED ALLEGATIONS.

IN two inquests which were held before Dr. Hardwicke on the 11th instant in St. Pancras, charges of neglect were made against the authorities of the Middlesex Hospital and the Highgate Infirmary. In the first case, the husband of the deceased complained that the patient was insane, and her immediate removal was insisted upon. The coroner remarked that he could not see that the hospital authorities had done wrong in ordering the immediate removal of the deceased. It must be remembered that hospitals are not lunatic asylums; and, if a noisy lunatic were allowed to remain in a ward amongst a number of sick patients, the effect might be very serious. It was plainly the duty of the husband to have gone to the hospital himself, and not to have sent his sister-in-law. In the case at Highgate Infirmary, the deceased had complained of having been starved. It was proved, however, in evidence, that a liberal diet of chops and nutritious food had been supplied. The coroner said it was clear that deceased was delirious, and therefore what he said could not be relied upon. From what had been stated, he must have been well treated. The juries in both cases returned verdicts of "Death from natural causes".

HOSPITAL OUT-PATIENT REFORM ASSOCIATION.

A LOCAL meeting in connection with the above Association was held on Friday evening last at 28, Buckland Crescent, Belsize Park; Mr. Stephen S. Alford in the chair. After a discussion, originated by the Chairman and in which most of those present took part, as to the best way of bringing the influence of the Association to bear upon hospitals at the present time, it was proposed by Dr. Ford Anderson, seconded by Dr. Joseph Rogers, and unanimously resolved, "That, seeing that Poor-law dispensaries have been established throughout the metropolis, whereby the wants of the indigent classes are fairly met, and that several provident dispensaries also exist, which, properly supported, would meet the requirements of those above them, this meeting considers that the time has arrived when the out-patient departments of the London hospitals may be materially curtailed with advantage to the community, and therefore urges on the subscribers to such hospitals the advisability of supporting a reform in this direction." After a cordial vote of thanks to the Chairman, the meeting adjourned."

HYDROPHOBIA.

A DEATH from hydrophobia was the subject of investigation before Dr. Birt Davies, the coroner for Birmingham, on the 5th instant. About four weeks previously, a lad about fourteen years of age, named Frederick James, was bitten by a cat, which appeared to be very wild, and, after attacking the boy, secreted itself in a hole in the floor of the house. It was subsequently dug out and destroyed. The boy to all appearance recovered; but he was seized with alarming symptoms, and died in great agony in the course of two days.—A young man named William Wrigglesworth has died at Wakefield from hydrophobia. He was bitten by a dog about seven months ago; but no symptoms of the disease were manifested until Sunday last, when his sufferings commenced.—A labourer named John Simons died on the 11th instant at Bilston from hydrophobia, caused by the bite of a dog a month previously.—Dr. Hardwicke held an inquest on Wednesday, the 2nd instant, on the body of Mr. William Holliwell, aged 42, a horse-dealer, of Barnsbury. James Donken, a cab-proprietor, stated that four weeks ago he saw a dog run down Copenhagen Street, followed by a crowd calling out "Mad dog". The deceased tried to stop it, and was bitten in the right hand. Dr. Scaife stated that he attended the deceased on Wednesday, August 26th. He was suffering from spasm, and refused liquids. He told witness that he had been bitten by a large black dog. On examining the hands, witness found a scar between the first and middle fingers of the right hand; but there was no inflammation. He expired on Friday night. The *post mortem* examination showed congestion of the brain, the cause of death being hydrophobia ending in exhaustion.

THE STATUE OF THE QUEEN IN ST. THOMAS'S HOSPITAL.

THE statue of Her Majesty, presented by Sir John Musgrove to St. Thomas's Hospital, has been placed on the pedestal under the fourth arch, on the right-hand side of the main entrance to the hospital in Palace Road. The statue, which is the work of Mr. Noble, is 6 feet 6 inches in height, and was sculptured out of a block of pure white Carrara marble weighing 12 tons; the depth of the block being 6 feet 6 inches, and its width 4 feet. The statue, as it now appears in its complete sculptured state, weighs 5 tons. The Queen is represented as seated on a State chair, in her full robes of State, holding the sceptre in her right hand, and the orb in the left hand. The left arm rests upon an arm of the chair, the right hand being brought forward and resting in the lap. The feet rest upon a footstool, and are to some extent hidden by drapery. The likeness of Her Majesty is admitted to be excellent. The pedestal upon which the statue stands is of Sicilian marble, beautifully moulded and carved, with panels on each side. The front portion of the pedestal has a circular projection; and within the panel, immediately under the statue, is the following inscription: "Her Majesty Queen Victoria. The gift of Sir John Musgrove, Bart., President, 1873." The delicate colour of the pedestal, which is richly veined, is in striking contrast with the pure white surface of the statue itself. The height of the statue and pedestal combined is 10 feet 6 inches.

PRELIMINARY EXAMINATIONS.

To the list of Preliminary Examinations given at page 329 of last week's JOURNAL, as recognised by the General Medical Council, should be added the Junior Local Examinations of the Oxford and Cambridge Schools Examination Board. The Medical Council, during its last session, resolved to recognise these examinations "provided that Latin and mathematics, and also one of the following optional subjects, viz., Greek, French, German, or natural philosophy, including mechanics, hydrostatics, and pneumatics, be among the subjects included in the pass certificate". Although under ordinary circumstances a student who is above the age of sixteen is not admissible to the Junior Local Examination, yet the University of Cambridge has made a provision for the admission to that examination of those who are intending to become medical students and are above that age. The University made this provision at the suggestion of the Committee of Reference under the Conjoint Scheme, who are desirous of rendering the Local Examinations of the Universities more available as Preliminary Examinations for medical students.

THE PHYSIOLOGICAL ACTION OF APOMORPHINE.

IN a paper on this subject, read before the Académie des Sciences de Paris at a late meeting, M. David relates the results of a long series of experiments relative to the physiological effects of chlorhydrate of apomorphine. The preparation of chlorhydrate of apomorphine used in these experiments was obtained from the chemist Duvernoy of Stuttgard, and administered in the form of subcutaneous injection. Though this solution changed colour in water, its properties were unaltered, and remained in a perfect condition for some weeks. This preparation brought on vomiting when administered in the following doses. In a dog, the vomitings came on four to six minutes after the injection of two *milligrammes* of the apomorphine, and were preceded by a very short period of nausea. The animal showed no symptom of disturbance. The dose necessary to produce vomiting in cats was much larger, and appeared to vary in the case of different animals. Thus, in one cat, vomiting was brought on after an injection of two *milligrammes* (.03 grain) of apomorphine, whilst another required a dose of thirty-three *milligrammes* (half a grain) to produce the same result. Pigeons required a minimum dose of four *milligrammes* (.06 grain) before they were sick. Experiments made, on three or four occasions, on human subjects in Dr. Revillod's wards, produced vomiting with a dose of three to four *milligrammes*. The attack came on in six minutes after the injection, and was only preceded by a slight feeling of uneasiness and giddiness immediately before vomiting. The sickness itself came on suddenly, and recurred three or four times; the patient soon recovered from its effects. Chlorhydrate of apomorphine produces in certain animals, such as in cats, pigeons, rabbits, rats, and guinea-pigs, a special excitement, which, M. David thinks, may be attributed to a specific action of the apomorphine on the nervous centres of these animals.

SCOTLAND.

CASES of typhus and typhoid fever are still on the increase in Leith; at present the whole of the wards in the hospital are occupied.

EDINBURGH UNIVERSITY BUILDINGS.

A NUMBER of architects have been invited to send in competitive plans for the extension of the Edinburgh University buildings. They are requested to make provision for a fully equipped medical school in conjuncion with a College Hall, capable of accommodating 2,000 persons. It is suggested that for the expense of buildings, inclusive of fittings, a limit of £70,000 should be kept in view. The plans are to be lodged by December 1st.

THE SIMPSON MEMORIAL.

THE result of a movement, set on foot shortly after the death of Sir James Y. Simpson, has been that nearly £6,000 has been subscribed for the purpose of founding a memorial in his honour. It has been determined to hand over £3,000 of that amount to the Maternity Hospital in Edinburgh, on condition that it shall be supplemented by an equal sum, to be applied towards the erection of a new building, with which the name of Simpson shall be associated, and that the remaining portion shall be applied to the erection of a statue of Sir James Simpson in some public position in Edinburgh. The commission for executing the statue has been given to Mr. Brodie of Edinburgh, who has almost completed his labours. The statue will be of colossal size, and will represent Sir James in academical robes, and seated. The figure is expected to be in the hands of Messrs. Masefield, of London, for casting in bronze, in about two months hence. Mr. Brodie has been fortunate in the position and expression of the late distinguished Professor. He is also engaged upon a bust of Sir James Simpson, which, with an accompanying bas-relief, illustrative of some feature of the great surgeon's career, is intended to be placed in Westminster Abbey.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of this Society of the Session 1874-5 was held in the Faculty Hall on September 4th. The following are the office-bearers for the session. *President:* Dr. James Morton. *Vice-Presidents:* Mr. John Reid; Dr. D. Richmond (Paisley). *Council:* Dr. George Miller; Dr. T. D. Buchanan; Dr. R. Stewart (Coatbridge); Dr. James Scanlan; Dr. Alexander Patterson; Dr. James Dunlop; Dr. D. Taylor (Paisley); Dr. Robert Perry. *Secretaries:* Dr. Joseph Coats; Dr. Gavin P. Tennant. *Treasurer:* Dr. Hugh Thomson.

DEGREES IN PUBLIC HEALTH IN THE UNIVERSITY OF EDINBURGH.

THE following is a sketch of the regulations for the degrees of B.Sc. and D.Sc. in Public Health, instituted by the University of Edinburgh. Candidates must be graduates in medicine of a British University, and must have studied at Edinburgh University at least during one *annus medicus.* The examinations for B.Sc. are written and oral, and consist of the following subjects. FIRST EXAMINATION: 1. *Chemistry.*—(*a*) Analysis of air; (*b*) Analysis of water; (*c*) Detection of impurities in food, drink, and drugs; (*d*) Practical analytical examinations. 2. *Physics.*—(*a*) Hydraulics and Hydrostatics; (*b*) Pneumatics; (*c*) Meteorology; (*d*) Mensuration. 3. *Sanitary Law.*—Knowledge of Sanitary Laws. 4. *Vital Statistics.*—Knowledge of Births, Marriages, Deaths. SECOND EXAMINATION: 1. *Medicine.* 2. *Practical Sanitation.* The degree of D.Sc. in Public Health will be conferred one year after that of B.Sc. The candidate must present a thesis on any department of public health showing original research. The fees for the examinations are: First examination, £5:5; Second, £5:5; D.Sc., £5:5.

IRELAND.

THE Waterford Board of Guardians have increased the salaries of such of their medical officers as were £100 per annum to £120 per annum, at which they now all stand.

THE annual meeting of the Ulster Hospital for Children was held in Belfast on the 2nd instant. From the report read, we learn that, during the year ending August 1st, there were 3,731 new patients treated, and 3,000 old cases, making a total of 6,731.

AT a late meeting of the Guardians of Castlecomer Union, it was resolved that Dr. Swan, who has held the post of Medical Officer to the Ballyragget Dispensary District for the past twenty-eight years, should receive a superannuation allowance equivalent to two-thirds of his late salary.

A STAINED-GLASS window, in memory of Dr. Dawson, has just been placed in Dungannon Church. Dr. Dawson had an extensive practice formerly in Dungannon, and fell a victim in 1847, at the age of 53, to malignant fever, which he contracted in the workhouse whilst medical attendant to that institution.

THE SEWERAGE OF KINGSTOWN.

A DEPUTATION from the commissioners of Kingstown, near Dublin, attended lately at the Board of Works, to submit plans for the formation of a system of intercepting sewers for that township. We have already in this JOURNAL drawn attention to the disgraceful condition of Kingstown in a sanitary aspect, and suggested that measures should be taken to abate the evil. We are glad that there seems now a certainty that this matter will at once be taken in hand.

DISEASED FOOD IN DUBLIN.

THE City Analyst's monthly report for August shows that, during that period, thirty-two sanitary analyses were made, and that 23,140 pounds weight of diseased and otherwise unwholesome meat were condemned. One person was fined £4 for having 200 pounds of unsound meat; and, for a similar offence, another delinquent was sentenced to six months', and a third to three months', imprisonment.

ROYAL COLLEGE OF SURGEONS.

IN reference to the report lately furnished by the visitors appointed, by the General Medical Council, to visit the examinations held last January in this College, the Council have now published an answer to the statements put forward by the visitors, in defence of this institution; and remark that, whilst they observe with pleasure that the visitors consider that the final examination "combines in a very appropriate and advantageous manner, a written, an oral, and a practical examination", they cannot but regret that the visitors, in the exercise of their discretion, considered it desirable and necessary to dwell so minutely and at such length on certain defects in the examination, which they knew and acknowledged that the Council of the College had already taken active measures to remove.

HOSPITAL FOR SKIN-DISEASES, BELFAST.

THE foundation-stone of this institution was laid on the 2nd instant, in Glenravel Street. It was established originally as a dispensary in 1865, and a small hospital was opened four years afterwards. Last year, Mr. Benn, a charitable citizen of Belfast, intimated to the Committee his intention of building a new hospital which would contain a complete set of baths of the most improved construction. The building will be three storeys high, faced with brick, with dressing of Dungannon stone; and the accommodation on the ground-floor will consist of vestibule, hall, waiting-room, consulting-room, apothecary's room, kitchen, scullery, etc. At the rear, there will be a building containing Turkish, douche, itch, sulphur-vapour, acid, and plunge baths; on the first floor, large and small dormitories, nurses' room, matron's apartments, lavatory, servants' apartments, etc.; whilst on the second floor there will be, besides the dormitories and nurses' room, also an operating-room and a room for patients' clothes.

QUARTERLY RETURN OF BIRTHS AND DEATHS FOR IRELAND.

THE Registrar-General for Ireland has issued his second quarterly return for this year. The births were 38,580, or 29 per 1000 of the population; the deaths 24,128, or 18.2 per 1000 of the population. The birth-rate was under, and the death-rate above, the average. The deaths show a decrease of 2000 as compared with a corresponding period of last year. From the seven principal zymotic diseases there were 2935 deaths against 2934 for a corresponding period of last year. Small-pox caused 123 deaths; of these, 109 were in Ulster; 11 in Connaught; 1 in Leinster; and 2 in Munster. The Registrar of the Dunkineiley District, co. Donegal, reports six deaths from small-pox, the result of inoculation. There is a decrease in the fever death-rate. Scarlatina caused 731 deaths against 376 in the corresponding quarter of last year. In the first quarter of this year, the scarlatina deaths amounted to 760, making in all 1491 deaths from this disease in the first half of the present year, and the epidemic still continues, especially in Dublin. Diarrhœa caused 407 deaths against 559 in the second quarter of last year. The Registrar-General states "it is satisfactory to find that the sanitary condition of some few localities has been ameliorated during the quarter". Drogheda has been improved as to its sanitary condition, in consequence of a report to the Local Government Board. In Banbridge, the water-supply is described as appalling. Of seventeen pumps, not one yields pure water, and four are dangerous. The result has been, as usual, an epidemic of enteric fever. The Registrar of No. 2 District, Cork, writes in despair: "My district has been in a very sad sanitary condition from the time that I first took charge of it up to the present; and I have come to the conclusion that it is sheer waste of time to trouble myself writing any more sanitary reports." The Registrar-General pertinently adds: "It is not surprising to find neglect as to sanitation in the provinces, when Dublin, the metropolis, continues to be, in consequence of neglected sanitation, one of the most unhealthy towns in the kingdom." It is clear that the Local Government Board has plenty of work before it under the new Public Health Act.

IRISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A MEETING of this Association was held in the hall of the King and Queen's College of Physicians, on September 9th. Sir Dominic Corrigan, Bart., M.D., took the chair. The report of the Association was read by Dr. Maunsell, and the statement of accounts by Dr. Speedy. On the motion of Dr. Grimshaw, seconded by Dr. Evory Kennedy, it was resolved that the report and statement of accounts be adopted, and that a thousand copies be printed and circulated among the Poor-law Medical officers of Ireland. Dr. O'Leary, M.P., moved, and Dr. Whistler seconded, "That this Association desires to express its general approval of the Public Health (Ireland) Act." On the proposal of Dr. O'Flaherty of Kingstown, seconded by Dr. Carter of Cork, it was resolved, "That the thanks of the Association are due, and are hereby given, to Drs. Maunsell and Speedy for their valuable services to the Association during the past year." A vote of thanks was given to the President and fellows of the College of Physicians; and Dr. Whistler having been called to the second chair, the meeting ended with a vote of thanks to Sir D. Corrigan for presiding.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

CANDIDATES for the first half of the Letters Testimonial of the College must return their names to the Registrar, and lodge their fees and certificates on or before Monday, the 23rd November, and will be examined on the 30th November on Practical Anatomy. On the following day, all such candidates as may have acquitted themselves to the satisfaction of the Examiners on Practical Anatomy, will be required to answer the written questions on Physiology, Materia Medica, and Chemistry. On the following days, all the candidates who have satisfied the Examiners on the written portion of their examinations, will be required to present themselves heretofore, in alphabetical order, for the *viva voce* examination of one hour's duration each. Candidates for the second half for the Letters Testimonial will be examined on the 14th December, on written questions in Surgery, and in answering written questions on Medicine, Medical Jurisprudence, and Prescriptions. On the following days all the candidates who have satisfied the Examiners on the written portion of their examinations, will be required to present themselves, as heretofore, in alphabetical order, for the *vivâ voce* examination of one hour's duration each. After the *vivâ voce* examinations shall have concluded, all candidates who have passed them shall on the next day be further tested by Clinical Examination; and on the day subsequent to the Clinical Examinations all candidates who may have passed them shall be examined in Operative Surgery and Surgical Appliances. Any candidate who may have passed any one or more of these examinations, but who has been remitted at a subsequent examination, will not be required to present himself for re-examination on such subjects as he may have previously succeeded in passing.

TESTIMONIAL.—Mr. Charles Robertson, Demonstrator of Anatomy at the University of Oxford, and Curator of the Museum, has been presented with a handsome timepiece and a quantity of silver plate. The timepiece bears the following inscription: "From many attached friends and pupils of Charles Robertson, Esq., Demonstrator of Anatomy in the University of Oxford, 1845-1874."

In Memoriam.

F. E. ANSTIE, M.D., F.R.C.P.

SINCE it was our painful duty to announce the death of Dr. John Murray, we have had to fulfil no sadder task than that of to-day recording the premature demise of Dr. Anstie, cut off, like him, in the full vigour of manhood, and falling suddenly into the jaws of death while in the act of fulfilling the daily duties of a life-saving profession.

In Dr. Anstie, the early promise of a brilliant career was developing in conspicuous usefulness, and ripening into fame. Other pens of his immediate co-workers in journalism and in medicine will claim—as partly they have claimed—the sad privilege of paying a fitting tribute to his memory. In that tribute we desire to join. Dr. Anstie possessed a quality of mind as rare as it is eminently useful. His humanity was enthusiastic, passionate, and urgent; his sympathy with suffering was intimate; his indignation at wrong-doing was strong; his anxiety to redress it restless and energetic. Hence, when the plan for inspecting workhouse infirmaries, with a view to their reform, had been drawn and elaborated by Mr. Ernest Hart, on behalf of one of our medical contemporaries, Dr. Anstie was by him asked to render assistance in carrying out the work. Into that work he threw himself with the energy and devotion of which his character gave the earnest. It was the great glory of his life, and perhaps the act by which he will be best remembered; for, in its ultimate consequences, the work in which he bore a conspicuous part fructified into a great national movement, and led to legislative acts which removed a stain from our national character. The human interests of life possessed always the strongest fascination for such a mind as his; and hence he threw himself warmly into the political and social movements of his profession, and always on the side of the weakest, always in support of liberty and progress. During the very week of his death, he was most actively engaged, as the Dean and co-Lecturer on Medicine in a projected School of Medicine for Women, in furthering female education and assisting women to obtain in London all the elements of a thoroughly sound and complete medical education at an establishment fitted on the same plan as the great metropolitan schools, and having a distinguished staff of lecturers selected from these schools. A meeting of the Council was fixed to take place at his house on the very day of his death. To the last, he was demonstrating his love of fairness and his sense of justice.

We must leave to time the task of assigning his place in the world of science. In his researches on "Narcotics and Stimulants", he had shown no inconsiderable grasp of the method of rigorous physical investigation. His work on *Neuralgia* was the proof of careful and skilled clinical study; and he was gifted with considerable power of interpreting and applying the most recent acquisitions to medical knowledge. His success in practice was already assured. He will, however, long be remembered as a man of singularly quick sympathy, strong affection, great love of his fellows, and an earnest desire to leave the world better, in some measure through his own exertions, than he found it; in this he succeeded. How few of us can hope that we shall be able to achieve as much, or that the same shall be said of us!

A more substantial memorial than written record would be worthily bestowed. We trust that some liberal and large subscription will be raised to honour his memory, and that it will be placed in the hands of those whom his premature death has robbed of the handsome provision which a few years would have enabled him to make for them.

THE RAILWAY ACCIDENT NEAR NORWICH.

THE following highly interesting communication has been sent to us by Dr. Eade of Norwich, who was a passenger in one of the trains during the recent terrible collision, but happily escaped with but slight injury.

SIR,—As the annual meeting of our Association has lately taken place in this city, and as, therefore, to a large number of the members of the profession, the recent frightful railway accident at Thorpe will have more than a mere humanitarian or even professional interest, I have thought you might be willing to publish a brief account of the experiences, medical and otherwise, of one who was unfortunately in the train at the time of its occurrence, but whose injuries, though several, were mercifully none of them of more than passing importance, and not sufficient to obliterate a most vivid remembrance of the incidents of the time. The accident, as is well known, arose from the meeting of two trains travelling at speed on a single line of rails between Norwich and Brundall, and running into each other at the bottom of the slope of a decline.

On the evening of Thursday, September 10th, I was a passenger from Yarmouth by the train which should arrive in Norwich at twenty minutes before ten. We reached Brundall, the last station on the line, punctually and in safety, and almost immediately started again on our way to Norwich. I made a mental observation at the time that I had not noticed the passing of the London down train, for which it is customary for the up mail to wait at Brundall; but, as I knew that the London train, when very late, was sometimes detained in Norwich until the arrival of the mail, I did not pay further attention to this fact.

All went well until we had arrived within about two miles of Norwich, when, at the foot of the Postwick decline and nearly opposite the village of Thorpe, I was suddenly startled by a violent stunning shock, followed immediately by the sound of a sharp metallic concussion. I was sitting at the time in a first-class carriage, either the third or fourth (including two trucks) from the tender, and the train was travelling down the incline at the rate (approximately) of not less than thirty miles an hour.

Immediately upon the shock, I felt that my carriage had come to a sudden standstill; then for two or three seconds I noticed some uncertain oscillating movements of it; then the compartment in which I was sitting seemed to diminish itself in its dimensions, at the same time that the carriage turned sideways; and then I knew no more until I picked myself up from the wet grass of a meadow into which I had been thrown, and found myself here quite alone, though quite sensible and collected, and able to appreciate at once that the night was dark, that the rain was falling fast, and that the steam was roaring off from the funnel of an engine which was standing within dangerous proximity to my person.

The period which elapsed between the shock of the collision and my being flung out of the carriage (whether through the broken roof or parted side, I know not) could not have been more than a very few seconds, and yet there was time for three or four very marked and distinct impressions or thoughts to pass through my mind. The first thought was, "there is an accident". Then I remember being struck with the metallic sound, the short, sharp, and almost thunder-like snap of the concussion. Then I thought we had broken down the bridge over the river, which is at the present time being altered near this spot. And then, as I felt the partition in front closing down upon me and the carriage turning over, I experienced distinctly the mental process of wondering whether the accident would be fatal to me. This was all, for I do not remember my fall, which must have been through several feet of space; and I think I must have been stunned for a brief period, for I have no recollection of having felt the impression of any of the seven distinct injuries which I received upon my person, and which may be summed up as two blows and cuts upon my head, two bruises upon my back, and three bruises and abrasions upon my legs.

Almost immediately after recovering from my fall, I had the conviction that I had not received any mortal injury, and I, therefore, went and spoke to some less fortunate passengers remaining in the carriages still standing, or who were now beginning to occupy the sides of the small embankment upon which our train had come to a standstill. It was at once but too evident that the injuries were numerous and severe. Many were crying out for help, two or three more were sitting on the cold wet earth moaning and nursing their broken limbs, and just in front lay the shattered, almost comminuted and heaped up fragments of our (the front and Yarmouth) portion of the train, with the funnel of our (now silent) engine lying close by, and the steam roaring and escaping from that of another in its immediate vicinity. The scene, though awful, yet even at that moment forced itself upon me as wonderful, and (may I say it) almost grand. For the accompaniments of personal nervous excitement, of the probability of still present danger, of the wet and dark night, of the uncertainty as to what exactly had happened and the certainty of the heaped-up and shattered carriages, of the presence of the wounded around and the conviction that other human beings were beneath the mass of *débris*—all combined to make up a scene which cannot have had many parallels in the experience of any except those who have been engaged in actual warfare.

As now my head was bleeding, my face covered with dust and dirt, my cap gone, my coat torn, and my whole body feeling the influence of nervous shock and excitement, I gladly accepted the offer of a kind friend to go to his house close by and wash and take some brandy; after which, feeling greatly restored, I returned to give what little aid I could to the injured, who were now being brought to the large room of a neighbouring tavern.

Of these, several were speedily found to be beyond human aid, either dead, with the life crushed out of them, or cold, collapsed, and dying, and one body was brought in with a lower limb torn off above the knee, but still with no sign of death having been caused by hæmorrhage. One unfortunate member of our profession (the able and courteous secretary of the Excursion Committee at our recent annual meeting) was there sitting in the corner with fractured thigh and crushed ribs, in a state which made me fear for his immediate safety, though I trust there is reason now to hope for his ultimate recovery.

With no appliances, save broken sticks or chairs for splints, and a torn-up towel for bandages, I could unhappily do little for the sufferers, except straighten their bent and fractured limbs, or fasten the broken to the sound one, and administer brandy to relieve the cold and collapsed condition into which they had nearly all fallen. I need scarcely say, that the inhabitants of Thorpe, who had speedily arrived on the spot, did all that could be done to help and relieve the injured; and I would also add one word of praise for the kindly and ready aid afforded by those attached to the "Tuns Inn", where one of the temporary hospitals was formed. But it was nearly an hour before further and most welcome medical aid arrived from Norwich with appliances for the injured limbs, and with carriages in which the wounded could be sent to the hospital or to their homes.

Of the more strictly professional points which I observed during my short ministrations, I would mention as most striking:

1. The cold collapsed state of all the injured, indicated by the feeble fluttering pulse, the cold and corpse-like feel of the skin, and the craving for brandy, and especially for extra covering, which they nearly all manifested; in several cases, almost to the temporary ignoring of the fractures or other injuries which they had sustained:

2. The undoubted fact, that brandy administered to them in this collapsed state was a great comfort and support, and helped to restore warmth and cardiac steadiness:

3. The absence of bleeding to any serious extent from the scalp or other wounds:

4. The fact that the fractures of the lower extremities were nearly all at or just below the lower third of the limb—a result probably due either to the driving of the seat in front over them, or to the jerking forward of the legs beneath the seat in front; and Mr. Crosse, the surgeon of the week at the hospital, and who consequently had the chief charge of those who were removed thither, tells me that, very curiously, where the fracture is single, it is in nearly all instances of the left leg.

Further, as has been before observed in railway accidents, the class of carriage seemed (*cæteris paribus*) to bear a strict relation to the amount and seriousness of the injuries inflicted. And in this case—of direct collision—the nearer they were to the engines, the more complete was the destruction of the carriages, and consequently the greater the danger which had been incurred by their occupants; the culminating point of nearness being reached in the case of the driver and stoker, both of whom on each train were at once and almost necessarily destroyed.

And now that this huge catastrophe has occurred, those members of the Association who recently visited Norwich will feel an especial interest in it, seeing that many of them probably passed along this very line of single rails, by this very evening train, on their way to Yarmouth or Lowestoft after the business of the day was over. The same conditions which caused the fearful destruction of life which has now occurred existed then, and might have produced the same result at the time of their presence among us, only with different actors in the tragic scene. The immediate cause of the catastrophe is, doubtless, the error or misapprehension of some individual. But the fault in the background, the real radical error, the cause of all the destruction which has occurred, is unquestionably, as the *Times* has well pointed out, the unpunctuality of the trains, with the consequent necessity for varying arrangements on the single line, and the necessary dependence, therefore, of safety upon the accuracy of individuals or the exact carrying out of orders, which must have varied from day to day according to the varying circumstances. I am, etc., PETER EADE, M.D.

Norwich, September 14th, 1874.

FORTY-SECOND ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in NORWICH, August 11th, 12th, 13th and 14th, 1874.

PROCEEDINGS OF SECTIONS.

SECTION B.—SURGERY.

Tuesday, August 12th.

Case of Lithotomy: the Nucleus of the Stone being a Broken Piece of Elastic Catheter. By J. WRIGHT BAKER, M.R.C.S.

Successful Resection of the Shoulder-Joint in a Case of Gunshot-Wound. By Sir JOHN ROSE CORMACK, M.D. (This paper was published at page 299 of the JOURNAL for September 5th.)

On a Method of Treating Chronic Synovitis, more especially of the Knee. By R. BARWELL, F.R.C.S.—The method recommended by Mr. Barwell consists in the injection of a mixture of tincture of iodine and water. He has gradually increased the proportion to half a drachm in an ounce, but believes that a still greater strength may be borne. After injection, he uses strapping by means of an elastic bandage.

Recovery from Apparent Death induced by the Inhalation of Chloroform. By Sir J. R. CORMACK, M.D. (This paper was published at page 237 of the JOURNAL for August 22nd.)

Nélaton's Method of Resuscitation from Chloroform Narcosis. By J. MARION SIMS, M.D. (This paper was published at page 239 of the JOURNAL for August 22nd.)

On the Administration of Laughing Gas and Ether, singly, or combined in any Proportion desired. By J. T. CLOVER, Esq.—The pungency of ether-vapour, when not largely diluted with air, and the frequency of violent delirium when it is so diluted, were serious objections to its use. Mr. Clover's apparatus supplied, first, pure laughing gas, which was not unpleasant to breathe; and afterwards supplied ether-vapour gradually by turning a dial on the face-piece. This was done with the hand which held the face-piece, and consequently the other hand was at liberty to feel the patient's pulse. Less ether was required than when no gas was used; consequently, less of it was absorbed by the tissues of the body, and recovery from the effects of the anæsthetic took place more quickly and with less intoxication.—Mr. LAWSON TAIT felt the necessity of obtaining a pleasant, safe, and easily given anæsthetic. He differed from the author (Dr. Sims) of the paper as to the cause of death from inhaling chloroform being due to cerebral anæmia. He thought it more probable that the explanation lay in some poisoned condition of the blood. There was no evidence to show that death from chloroform ever occurred to an infant or to a woman during labour.—Dr. HUMPHRY thought the question involved was one of the first moment. The administration of chloroform greatly increased the responsibilities of operative surgery; and there were few surgeons who had not experienced that dreadful suspense in cases of chloroform narcosis where death appeared imminent. He thanked Dr. Sims for the additional hint as to what to do in cases such as these. Dr. Humphry thought that allusion had not been made to those cases where death took place at the early part of the administration, preceded with violent convulsions. He considered that such cases could not be attributed to cerebral anæmia. He agreed with Mr. Tait that an explanation was to be sought in some altered condition of the blood. He suggested that nerve-exhaustion might explain this, violent excitement being followed by correspondingly intense depression. He had observed in cases of death following upon chloroform narcosis, that the blood was of a consistence like treacle.—Mr. BAKER mentioned that he always gave the patient a dose of brandy before proceeding to administer chloroform, with very good effect.—Mr. LUND alluded to the importance of always having at hand, when administering chloroform, means for applying galvanism, and illustrated this by cases which had come under his notice at the Manchester Infirmary.—Sir J. ROSE CORMACK, in closing the discussion, remarked that it was much to be regretted that the pressure upon the sections was so enormously in excess of the limited fragments of time allotted to their work. The papers on chloroform which had just been read afforded a most admirable opportunity of eliciting the views of many present, who could speak with authority on momentous practical points mooted by the respective authors. As the remarks of several speakers were not explicitly applied to one or other of the two papers read in which inversion was recommended, he hardly knew whether he was called upon or not to say that he attached less importance to inversion than Dr. Marion Sims, and that he thought it would be a dangerous mistake unduly to exalt its efficacy. In cerebral anæmia from any cause, the patient ought, as a rule, to be placed in the horizontal position, with the head low and the feet raised about a foot. The cases in which inversion is called for are rare—quite exceptional. It ought, moreover, to be performed most carefully and watchfully—tentatively, in fact. Too long-continued inversion may prove very dangerous by causing distension of the right side of the heart, which will in turn cause and maintain a cessation of its contractions—which causes death in a certain class of cases of fatal chloroform inhalation. This and other poisons, such as creasote and prussic acid, given in large doses, produce instantaneous paralysis of the right side of the heart; the auricle goes on receiving blood and is unable to get rid of it, so that by distension the paralysis (which in some cases would be only momentary) is rendered permanent; the result is probably that instant or very rapid death to which the French apply the term *sideration* —death by star-influence. This subject of quick death from sudden distension of the right side of the heart, he (Sir John) had investigated experimentally many years ago, and he still held to the views he had then published. Touching Mr. Clover's apparatus, it was unquestionably a most admirable invention, but its cost and complexity must prove fatal to its introduction into general use. It will be a great source of safety when the administrator is a steady, watchful man, familiar with the system and the instrument. On the other hand, it is apparent at a glance that negligence or hardihood might readily cause an untrained or self-sufficient administrator to turn the valves too much, too little, or not at all. The induction of complete anæsthesia for surgical operations can never be divested of all danger; but (in theory at least) by Mr. Clover's method the danger may, it would appear, be reduced to its minimum. Slow administration, using the conically arranged towel, and letting plenty of air be breathed, generally secure immunity from danger; and, under all circumstances, such precautions and appliances can be commanded. When cost and complexity are not objections, and when Mr. Clover's apparatus and a person who knows well its use are at hand, it ought to be employed. The remark which was made by Mr. Baker was of great importance—viz., that a moderate stimulant, a dose of wine or brandy, given shortly before the commencement of inhalation, greatly tends to prevent the anæsthetic vapour from producing a too depressing influence on the heart.

Hereditary Syphilis in the Adult. By VICTOR DE MÉRIC, F.R.C.S.—Mr. de Méric exhibited drawings connected with a case which had come before him at the Royal Free Hospital in a girl sixteen years of age. The patient presented, in a striking manner, the notched upper incisors first described by Mr. Hutchinson. The history of the case proved that the girl had probably not suffered from the earliest symptoms. The teeth, however, showed plainly that there was hereditary taint, which became manifest by unmistakable symptoms about the tongue, which suffered in various ways, and became at last the seat of a large gumma. She improved much under a specific treatment; but the author feared that relapses would eventually occur. Mr. de Méric commented on the circumstances of the case, frequently alluding to the aphorisms contained in Mr. Hutchinson's book. Among the drawings, was one illustrating the cracked lips of hereditary syphilis, which leave cicatrices easily discerned in after life.

Wednesday, August 13th.

Incision versus *Excision of the Knee in Children.* By EDWARD LUND, F.R.C.S.—Mr. Lund argued that, in a large proportion of cases under twelve to fifteen years of age, the incision was the better operation. The mode of procedure was peculiar, inasmuch as he only opened the joint by an incision in its external side, and through this, by means of a curved cutting hooked knife, which was passed into the joint, or so much of the natural cavity as remained, all adhesions were broken down, or cut through, so as to permit the bones to be replaced in a straight line. It was rarely possible to do this immediately, on account of the contraction of the tendons; but several contrivances were shown by which, by the use of elastic India-rubber bands, long continued slight pressure produced excellent results, and firm, straight ankylosis of the knee was the result. It was, however, one essential condition of the operation which Mr. Lund recommended, that it should be conducted entirely upon Mr. Lister's system of antiseptic dressing, for without these precautions it might in many cases prove a hazardous proceeding.

Excision of the Hip-Joint for Disease.—By John Croft, F.R.C.S.—In his preliminary remarks, he expressed himself strongly in favour of the subperiosteal mode of operating, as preserving the attachments of all muscles belonging to the great trochanter, and the periosteum of the neck of the great trochanter and top of the shaft. Considering the principle of Dr. Sayre's operation right, he carried it out at his first opportunity, on November 22nd, 1871, on a boy whose case was read at the Clinical Society of London, May 23rd, 1873, the patient being exhibited at the time. The head, neck, and shaft, to below the great trochanter, were excised; yet, when the patient was exhibited, no appreciable difference could be discovered between the length of the right and left femur. On July 27th, 1874, the right femur measured only a quarter of an inch less than the normal one on the left side. This result showed it was possible, in excision of the hip-joint, to obtain the restoration of the lost length of the bone, and also that, though the femur had been deprived of its upper epiphysis, the bone would continue to grow for some time *pari passu* with its healthy fellow. The boy was in good health. Mr. Croft considered the difficulty of the subperiosteal operation trifling; the only part at which a little difficulty was encountered was over the great trochanter, where, in the young, the cartilaginous crust required some force to detach it. He could not say definitely whether the subperiosteal mode of operating increased the tendency to the formation of abscess. Mr. Croft attached some importance to the line of incision. If it were made in front, the seat of disease was reached with tolerable ease, and the wound could afterwards be attended to without moving the patient; but the opening was not dependent, and the secretions of the wound lay in a basin, of which the wound formed the lip. As the fluids could not escape, they burrowed towards the back, and were likely to form abscess in that direction. He preferred the incision on the external aspect, for it provided a dependent opening through which the discharges might freely flow. After the removal of the great trochanter and top of the femur, when the soft parts in the course of incision lost the support of those hard structures, and when extension was made, this line of incision became posterior rather than external. By external incision, he meant one beginning an inch and a half above the centre of the top of the great trochanter, and terminating opposite the axis of the shaft of the femur, just below the level of the small trochanter. This line should be curved slightly backwards. The disadvantage of this line of incision was that the patient lay partly on the wound, and the escape of the discharges might be so obstructed. He had the wound always kept open by pieces of lint saturated with carbolised oil, and further added a large piece of elastic drainage tubing. Mr. Croft had not found it necessary to divide the muscles transversely; the seat of disease could be fairly exposed by the longitudinal incision in the muscle. Extension of the head of the bone, to enable the operator to apply the saw, Mr. Croft believed to be unnecessary. It was attended by considerable difficulty; if the attempt to thrust out the bone were made with force, there was great risk of disturbing the attachment of the periosteum. Mr. Croft advised that the top of the femur should be cut off level with the small trochanter. The great trochanter, if left, formed a great obstruction to the outflow of discharge from the acetabulum and deep parts of the wound. The dressing of the wound was also facilitated by its absence. He used the keyhole saw made for him by Mr. Blaise of St. James's Street. It should be as slender as compatible with strength, and the end rounded. He had tried other saws, but preferred the one described. In the after-treatment, during the first few days, cleansing, dressing the wound, and cleansing its neighbourhood, caused great suffering, because they could not be accomplished without moving the patient. A long outside splint was cumbersome, and only partially prevented this. Another cause of suffering was in being moved on to the bed-pan. In order to avoid these sufferings, Mr. Croft had a stretcher constructed for his last case (May 27th), by means of which the patient could be raised eight inches from the bed, so that the bed-pan could be easily passed under him, and the hip-wound was rendered easily accessible for dressing. It was provided with four small trestles to act as supports, one at each corner; these were reversible, and could be worked in succession by a nurse. The canvas was arranged in three widths; the middle one had a hole cut in it corresponding to the hole in the bed-pan. The patient was placed on this stretcher immediately after the operation, and lay on it continuously. It was only brought into use when required. It was also very desirable to maintain the limb in a state of abduction. Mr. Croft used extension by weight and pulley to steady the whole limb; and to increase the steadiness he had put a long outside splint on the sound limb, and connected this by a bracket with the limb operated on. This answered a double purpose. The body was kept straight in bed, and a splint formed a fixed point by which abduction might be kept up. It was maintained by a metal bracket crossing from one side to the other, one end fixed on the long outside, the other in the bandage of the opposite limb, on which a short outside might be put that the bracket might have a firm socket to fit in. By this arrangement, the neighbourhood of the wound was left free from bandages and splints, and was easily accessible, and yet steadiness, extension, and abduction were all provided for.

The Management of the Pedicle in Ovariotomy. By J. Marion Sims, M.D.

On the Treatment of Wounds. By G. M. Humphry, M.D., F.R.S.—Cut surfaces seldom fail to adhere together and grow together—that is, to unite by first intention—if they be kept in apposition, however much they may have been exposed to air, as in wounds of the face, scalp, and fingers, where this may commonly be done. This, therefore, is the great desideratum. The obstacle to it is the accumulation of bloody fluid in the wound keeping the surfaces apart, decomposing, and causing suppuration. No precautions hitherto have assured against this. Anything giving that assurance would be a most valuable discovery. The decomposition may be lessened sometimes, though not commonly prevented, by antiseptics, but fail to provide for escape by drainage. Professor Humphry had long adopted the plan, which he had brought before the Association at the Cambridge meeting in 1864, of approximating the edges by sutures, and leaving the wound quite uncovered and dry. No dressing being used, the pain of removing and reapplying plasters, etc., is avoided. This, combined with some antiseptic or blood-coagulator to the surface of the wound, and a space left for escape of bloody fluid, was, he believed, the mode most likely, on the whole, to promote quick union of large deep wounds. He did not think that torsion of vessels or carbolised ligatures presented much advantage over the hemp ligature. A splint was an adjunct that might well be oftener used. He had tried the hydrate of chloral (five to eight grains to the ounce of water), and found it a valuable disinfectant, and recommended others to try it. In the case of wounds for the removal of cancer, he had for many years encouraged suppuration, and tried to retard healing, believing that this tended to delay the return of the disease. In some cases, he had inserted issues at the time of the operation or subsequently, and he thought with benefit. He believed the administration of opiates to be generally prejudicial in the treatment of wounds.

A Case of Double Popliteal Aneurism. By G. M. Humphry, M.D., F.R.S.—A healthy labourer, aged 37, was admitted to Addenbrooke's Hospital, Cambridge, with an aneurism in the right ham. The femoral artery was tied with carbolised catgut ligature on November 20th, 1873. Carbolic dressing was applied. The wound progressed unfavourably. Profuse hæmorrhage occurred on December 9th and 16th. The bleeding vessel was secured with hemp-ligatures. On December 18th, while the patient was very exhausted from loss of blood, an aneurism was discovered in the left ham; it was enlarging rapidly, and with so much pain, that the femoral artery was tied on December 25th with hemp-ligatures in two places, and the artery divided between them. Sutures only were used. The wound healed quickly; but pulsation in the ham returned on the second day, and increased rapidly and painfully; it was arrested by forcible extension of the limb. This was followed by suppuration in the aneurism. The pus was evacuated by the trocar, and the patient recovered with both aneurisms cured.

Some Points in the Anatomy and Surgery of Talipes Varus. By G. Buchanan, M.D., Glasgow.

A Mode of Employing Pressure in Cases of Inflammatory Enlargement. By S. M. Bradley, F.R.C.S.—Mr. Bradley described his method of treating certain cases of inflammatory enlargement, and dwelt particularly upon the mode of compressing the testis, the mamma, and various parts of the trunk and extremities. The first he effected by means of elastic straps laced around the enlarged testis; the second, by a modification of Salmon and Ody's truss; and the third, by a piece of sheet-lead enclosed in wash-leather, with elastic bands laced around the trunk or extremities. The appliances, manufactured by Messrs. J. and W. Wood of Manchester, were exhibited at the reading of the paper.

Friday, August 14th.

Notes on a Case of Gastrotomy. By Joseph Allen, M.R.C.S.

A Case of Vesical Calculus. By A. H. Dolman, M.R.C.S.

When and how long should Mercury be used in Syphilis? By C. R. Drysdale, M.D.—Dr. Drysdale explained that this question had been put by an eminent member of the profession, on the perusal of Mr. J. Hutchinson's paper on Mercury in Syphilis, in the Hunterian Society of London, in 1873. The point had been warmly debated of late in Paris by many distinguished authors; in Christiania, by Professor Bœck and his school, most of whom had replied briefly to the above query, "Never". Diday of Lyons, one of the first sceptics in this matter, had, in his well-known work, on the *Natural History of Syphilis*, pointed out that a large number of cases of primary and secondary syphilis were benignant; scarcely requiring any treatment; and, moreover, not being followed by tertiary symptoms. These facts were well known to the profession; but subsequent experience had taught Dr. Drysdale, as well as the rest of the profession he believed, that the benignity of the primary or secondary lesion was no guarantee that tertiary symptoms would be absent. Dr. Edward Fournier, followed by Mr. Jonathan Hutchinson, now distinctly stated, that the main cause of the appearance of tertiary syphilis was the omission of mercurial treatment at the early period of the disease. Dr. Fournier hence gives it as his profound conviction that all cases of true syphilis should be treated for two years with small doses of the green iodide of mercury, whenever any symptoms were present. Mr. Hutchinson's assertion was quite as categorical, and was to the effect that mercury was an antidote to the syphilitic virus, and could prevent the appearance of secondary rashes, if administered in time. His opinions carried great weight. Dr. Drysdale did not mean to give a denial to the assertions of such close observers as Fournier and Hutchinson, but could hardly think that they had proved that the cause of tertiary syphilis, *par excellence*, was the non-administration of mercury; since it was notorious that, in hosts of cases of tertiary syphilis, mercury had been greatly used. He was, therefore, disposed to say that no reply could be given to this assertion, until a fresh comparison of cases had been instituted. Should it be found that tertiarism could be prevented by careful courses of mercury, of course it was the duty of all practitioners to administer such courses. Meanwhile, Dr. Drysdale had found the iodide of potassium, sometimes in very large doses, all that was needed in the cure of gummy tumours or other tertiary lesions; and he could not see why some practitioners continued to give mercury in the tertiary stage, when such a potent and entirely innocent remedy as iodide of potassium had been discovered.

Preventive Surgery in its relation to Injuries from Agricultural Implements. By JOHN T. SKRIMSHIRE, M.D.—Under this title, the author advocated the urgent need which existed for preventive legislation as affecting accidents from agricultural implements. In illustration, he adduced several examples from his own practice. 1. Compound fracture of the leg into the knee-joint, with death from shock and hæmorrhage within twenty-four hours. 2. Compound fracture of the humerus; amputation at the shoulder-joint; recovery. 3. Compound fracture of the humerus; amputation at the junction of the upper and middle thirds of the humerus; recovery. 4. Compound fracture of the radius and ulna; amputation below the elbow-joint; recovery. Also several cases of severe injury to the hand and fingers, one of which was complicated with tetanus, lasting several weeks, but ending in recovery: and a case of injury of the foot from a steam-saw; amputation between the first and second rows of the tarsus; recovery. In all, the author had met with ten cases of the severest possible character in ten years, of which eight, or eighty per cent., were preventable if proper fencing of machinery had been used. Two of these ended in death; the rest recovered with maimed limbs. His district equalled about one-thirtieth of the county of Norfolk. He assumed therefore (four other medical men practising in the same district) that, at the very least, three hundred cases of such severity had occurred during a like period in the whole county, a very serious addition to the unnecessary waste of life and limb which human carelessness entailed upon mankind. He strongly recommended legislation for the prevention of such accidents as a grand object for the British Medical Association to effect; and concluded by giving a sketch of the principal provisions which such a measure of legislation should contain, taking as a basis an Act to amend the laws relating to labour in factories.

SECTION C.—OBSTETRIC MEDICINE.

Wednesday, August 12th.

President's Address.—In the absence of Dr. CHURCHILL, the President's Address was read by Dr. Steele, who explained that Dr. Churchill was prevented from attending by severe indisposition. The address was published at page 223 of the JOURNAL for August 15th. Dr. STEELE observed that it was not usual to invite or permit comment on the address, but he had the written sanction of the President to make a few remarks. There was considerable divergence of opinion on the question of large hospitals being unhealthy. There was no evidence to show that the Rotunda Hospital at Dublin was a hot-bed of fever or a focus for the extension of puerperal disease. No matter whether lying-in hospitals were small or large, it was confirmed by Dr. Johnston's statistics that women were not admissible until the beginning of labour, and this subjected patients to considerable risk. Whatever advantage they might gain from a temporary change from home was negatived by their return to the same abode shortly afterwards. He (Dr. Steele) had seen few, if any, ill results from out-door practice.

On the Tensile Strength of the fresh Mature Fœtus. By J. MATTHEWS DUNCAN, M.D.—He began by pointing out the great need for extended series of laboratory experiments to verify or discover new rules in obstetrics. In the present paper, he showed, by a series of simple experiments, the limit of the force that could be exerted in dragging a fœtus through a contracted pelvis. He pointed out that this force was less than would naturally occur to most men guessing on the subject, and referred to the absurdly erroneous statements often made by our best authors as to the greatness of this available force. A series of experiments performed by the author went to show that an average traction-force of 120 lbs., which was far greater than any natural expulsive force, caused decapitation, the spinal column giving way between the fourth and fifth cervical vertebræ. It was difficult to employ an extractive force of one hundred weight by ordinary means.—Dr. STEELE observed that, although many practical conclusions might be drawn from carefully conducted experiments, still the force employed was not comparable with the traction-force in ordinary delivery. The force was differently exerted; it was not so continuous and not so thorough. There was a considerable difference in practice in estimating whether there was a greater tolerance of extracting force by the feet or by the forceps. In some cases, he was led to prefer podalic extraction; in others, it was safer to employ powerful forceps and considerable extractive force.—Dr. ROBERT BARNES thought that, although the tensile power required to decapitate a dead child was found to be 120 lbs., still, when we tried to carry it on to podalic version and delivery, it was different. The living fœtus would bear a tractile power that the dead child would not; the living body would resist a power sufficient to separate a dead child. The forceps was not comparable with podalic version. It was justifiable to make experiments in tractile force, though there would be little hope of delivering a child alive. He demurred to the statement, that no accoucheur could apply a tractile force of 100 lbs. The average weight of the operator's body being taken at 140 lbs., it could all be utilised. He admitted that a less force would succeed in delivering a child that would live a few minutes and then die; but this he regarded as a failure of the operation. The experiments of Dr. Matthews Duncan differed from those performed by himself (Dr. Barnes). If turning were resorted to, the child should be capable of coming through the pelvis. In Dr. Duncan's experiments, the hole would not admit of the head passing; so the case was not fit for turning, and, therefore, not applicable. The force might still be too great; but, if applied in the proper direction, the head might be brought through the pelvis. Fœtal heads varied considerably. Some were plastic, and in that element of uncertainty lay the scope for experiments. He did not wish to underrate the value of Dr. Duncan's experiments, but still he differed from the author as regarded their utility.—Dr. BRAXTON HICKS bore testimony to the great debt owed to Dr. Duncan for his experiments. The practical point was, what amount of force was necessary to reduce the biparietal diameter of the fœtal head to allow it to pass, and bring it down to the diameter of the base of the skull. Craniotomy and death of the fœtus was the other alternative. In one case, he had witnessed traction exerted until a distinct snap was heard, as if the neck had broken, and yet the child was born alive and lived.—Dr. STEELE had also experienced this in his practice.—Dr. DRURY had met with a similar case, where the forceps had been applied and a distinct crack heard, and yet the child was born alive. The question was, whether it was due to the head impinging on the pelvic bones. —Dr. MATTHEWS DUNCAN remarked that he had not said a word in favour of or against podalic version or forceps, but had pointed out certain points which must be decided. The strength of the materials must first be known. The vertebral column gave way before the soft parts, and 15 lbs. extra could be put on after the spinal column had given way. As a rule, 100 lbs. of traction must not be used, or decapitation would be the result. The question had been raised whether a living body would bear more force than a dead one. He thought that a fresh fœtus was as strong as a living one. Casper said that the dead body was far stronger than the living; but it was wrong; there was no difference as long as the body was fresh. Nothing erroneous had been pointed out in his paper. There was much difference in the force employed. A child might be torn to pieces if more than a certain force were applied. Two or three people might swing with the forceps on the fœtus; but, if the feet were grasped, one was sufficient to tear it asunder. The deformity of the head made a great difference; it was a question of fireside opinions *versus* bedside opinions. Experiments on the dead fœtus threw much light on the subject.—Dr. HENRY BENNET thought the only question considered was the possibility of bringing a living child into the world by a certain force. In all future investigations, the health of the mother must be considered and the maternal structures must not be damaged. Many ill consequences ensued from too great a force being applied.—Dr. ROBERT BARNES had not omitted to make accurate observations on the form of the head in podalic version, both in tracings and casts. The head was never caught in the longest transverse diameter; it was capable of being compressed, if properly seized. He had frequently observed the depression formed in the head from the projecting sacral promontory.—Dr. DESMOND thought it was a question whether the dead fœtus would bear the same strain as the living one; the breaking point of bones and ligaments must be nearly the same; only the living muscle could increase the opposition.

On the Treatment of Mechanical Dysmenorrhœa and Chronic Induration of the Cervix Uteri. By A. B. STEELE, L.K.Q.C.P.—The author recommended in these cases exposing the os with the duck-bill speculum, drawing down the cervix with a small volsella, and then laying open the entire canal of the cervix by two lateral incisions up to, but not beyond or implicating, the os internum, by means of strong curved scissors. Wright's expanding stem was then inserted, and left in for about a week to prevent contraction of the wound. In the second class of cases, chronic enlargement and induration of the cervix, which had resisted ordinary treatment—scarification, escharotics, leeching, etc.—he had found the plan suggested by his colleague Dr. Wallace very satisfactory in a number of cases. It consisted in cutting a slice of tissue, about a quarter of an inch in thickness, from the lower end of the cervix by a sweep of the knife, or, more conveniently, with a very strong pair of slightly curved scissors. If the hæmorrhage were free, perchloride of iron would arrest it. The relief to the patient was most marked, and, as far as he had an opportunity of judging, was permanent.—Mr. E. B. ADAMS thought the paper referred more to married women than to single girls. He would like to hear how we were to treat those distressing cases of dysmenorrhœa in single women where an examination even was not in many cases advisable.—Dr. HENRY BENNET observed that the paper opened up a wide field of discussion. He regarded dysmenorrhœa in these cases as due to congenital constriction of the external os, which prevented the proper discharge of the menstrual blood. The pain occurred at the menstrual periods only; it was not dependent upon inflammation, as otherwise the pain would continue in the intervals. The cases were very frequently of congenital malformation, or pin-hole external os, where there were no symptoms of inflammation. The cavity of the uterus was the infundibuliform cavity of the cervix. He never found it necessary to carry the incision for division of the cervix beyond the os internum; a slight incision on each side being sufficient, the edges being then touched with tincture of iodine or nitrate of silver, and the internal os dilated by means of graduated bougies or sponge-tents. He had met with a number of instances where the indurated morbid condition was not confined to the cervix, but extended to the body of the uterus, the organ weighing five or six ounces. He thought it bad surgery to try to get rid of disease at one end without attempting to deal with the other. Lisfranc used to amputate the extremity of the cervix. He (Dr. Bennet) had done the same, but he doubted whether, in broken-down constitutions, such a serious operation was justifiable; it should be kept in reserve, like the application of potassa fusa for bad cases.—Dr. DESMOND observed that virgins were frequently subject to dysmenorrhœa from pin-hole os, and there was nothing to be done but to make a vaginal examination, and treat the case locally. There was a medical as well as a moral or social aspect to the question. If necessary, it should be done. Surgically, there was not so much difficulty as generally supposed; the cases were easily treated by bougies and small sponge-tents. If stems were necessary, the end of one of Mr. Holt's winged catheters formed a good material. Chronic induration was a very troublesome condition; remedies only relieved it up to a certain point. The employment of the actual cautery at a white heat, plunged into the cervix, he had found a perfectly safe remedy. It set up fresh action, and produced interstitial absorption, and was seldom followed by septicæmia. The charring of the tissues stopped absorption.—Dr. MATTHEWS DUNCAN differed from most authors in that he had met with a pin-hole cervix only once in a few years in a large practice, whereas dysmenorrhœa was very frequent where there was no pin-hole os. It was a grievous deformity, and out of all proportion to dysmenorrhœa. Few men had examined more cervices uteri probably than he had during the last twenty-five years, and he found pin-hole cervix to be as rare as an acephalous fœtus; the condition, even when it did exist, did not cause dysmenorrhœa. A pin-hole os was large enough to allow a woman to bleed to death within a few hours. It was not a cause of mechanical dysmenorrhœa; the whole theory was fallacious; the same kind of thing was seen in an early abortion. The pains of real dysmenorrhœa were fearful, indicated by cold sweats, vomiting, and intense agony. It was not a disorder of the external os uteri. The cervix might be cut off without benefit. Mechanical dysmenorrhœa was a disease of a spasmodic character. In the most serious forms, women sometimes passed over a period without the least pain, showing that it was not mechanical. Mechanical treatment was most useful in this disorder, but should be employed with great care. Where the general health was deteriorated, there was a risk of setting up cellulitis. It should only be resorted to where the general health was suffering. The simplest treatment was the best; the bougie, as suggested many years ago by Dr. Macintosh. Many cases were permanently cured by a single passage of the bougie. We had a well marked analogy in surgical stricture of the urethra, where micturition could be accomplished after passing a bougie, which relieved the spasm. Spasm of the uterus was the essence of dysmenorrhœa.—Dr. STEELE stated that he had endeavoured to give a short practical paper on two cases; he had no intention of its being so comprehensive.

On Dysmenorrhœa. By C. R. DRYSDALE, M.D.—The object of this paper was to state the conviction of the author that over much attention had of late years been paid to the mechanical treatment of painful menstruation, to the exclusion of hygienic and therapeutic remedies of less heroic but no less beneficial nature. This opinion was given after a trial made for some years of the various methods recommended by Sir J. Simpson and his able followers with very doubtful success. In some instances, cases of dysmenorrhœa, treated by dilatation by means of sea-tangle tents, had become more intractable from the superaddition of some other uterine disease, such as pelvic peritonitis, or even abscess, to the former severe sufferings of the patient. Again, in some cases of incision of the cervix uteri, it was unquestionable that damage of a severe nature had been done to the patient, and that, above all, when the internal mouth of the cervix was divided. Several instances of this kind had come before his notice where, indeed, no relief had been given, after all, to the painful and distressing malady, which was certainly one of the most distressing diseases that members of the human race were subject to. Dr. C. R. Drysdale thought that the surgical school had of late laid far too much stress on the supposed necessity for cutting operations in dysmenorrhœa, and asked whether sufficient attention had been given to the use of warm baths, quinine, and iron, Indian hemp, chloroform, and other remedies; the use of a pessary, like those called Hodge's, was often of service; and catheterisation with the sound was sometimes of use; nor did he entirely object to incisions being made use of in those very rare cases, where there is conical cervix with pin's-head os uteri. But, in the immense mass of cases of painful menstruation coming before the practitioner, there is no very great narrowing of the canal of the cervix. In all such cases, he had come to the conclusion that it is unadvisable to have recourse to any surgical operation, but that palliative and hygienic remedies should alone be had recourse to.—Dr. EDIS observed that, until we recognised the fact of dysmenorrhœa being a symptom and not a disease, we could scarcely expect to advance in our knowledge of the subject. It was only by studying carefully individual cases, and taking into consideration every point in the history of these cases, that we could throw light upon the nature of the disorder. It was useless talking of the empirical treatment of a *symptom*, which might depend upon so many different causes. Quinine would benefit one patient and be perfectly useless in another. Indian hemp might succeed; but, beyond recording the fact that a patient had benefited by its use, the information was valueless, nothing being mentioned of the condition which would guide us in subsequent cases. In fact, it was impossible to treat cases successfully until their history had been gone carefully into, and we knew exactly what conditions we had to deal with.—Dr. DRURY thought it was impossible to talk abstractly of this disorder. Dr. Drysdale had found various things useful, showing that there must have been various forms of dysmenorrhœa.

Thursday, August 13th.

Application of the Galvanic Cautery to Gynæcology. By J. BRAXTON HICKS, M.D., F.R.S.—After describing the mode of action of the various forms into which the platinum wire is arranged, he explained their adaptation to the various diseases met with in obstetric practice; comparing it, as he proceeded, with the other forms of cautery, with the knife and *écraseur*. He pointed out the special advantage of the wire loop in cases of malignant disease of the cervix, which were too sessile for the *écraseur*. He also alluded to the great advantage it was, in this form of cautery, that the loop, needle, and conical forms could be applied cold; and that complete and careful adaptation to the ends intended could be effected. The paper was illustrated by Messrs. Krohne and Sesemann with apparatus (slightly modified after Dr. Middeldorff's) in action. The battery was Benson's combination four cells; the carbon plates immersed twelve inches by eight.—Mr. CLOVER had seen the galvanic cautery used on many occasions by Mr. Marshall. In the best of hands something goes wrong; and we have in consequence an unseemly delay, or a total failure when the patient is well under chloroform. He could fully endorse Dr. Hicks's observations, but we should see that the instrument was in working order before placing the patient under the influence of chloroform. In cases of vascular tumour of the urethra, he had seen a small revolving apparatus used; the needle moving on a pivot, so that one end was being heated whilst the other was being used. There was also the gas-cautery. In cancer of the tongue, he had seen most satisfactory results.—Dr. Matthews Duncan had used the galvanic cautery for many years. It was the best method of operating in a large number of diseases of women—especially malignant disease of the vulva, or lupus, where it was generally a matter of great difficulty to arrest the hæmorrhage if cutting operations were resorted to. With the galvanic cautery, we can shave them off better than by any other method. He had been struck by the absence of pain in these operations; even in amputating there was no pain, or much less than in cutting. The great advantage was the avoidance of long-continued hæmorrhage, where styptics, the hot iron, perchloride of iron, etc., were of no use. The great disadvantage of the galvanic cautery was, that it was expensive and troublesome. Every battery became destroyed for want of care. All these evils would be avoided by using a magneto-electric machine, which could not get out of order, and required no preparation.—Dr. Aveling agreed with Dr. Duncan in the necessity of finding out some more simple and efficacious arrangement—some rotary machine.—Dr. Lyster had seen the galvanic cautery used in a considerable number of cases. In ovariotomy it did not seem suitable, the large vessels in the pedicle frequently giving rise to severe hæmorrhage. The heating of the wire was a most important point: if too hot, the severance was more rapid than with the knife. It would probably be of service in removing condylomata from the vulva, where generally there was much bleeding.—Dr. Edis thought the great advantage in employing the galvanic cautery was that the wire could be placed exactly in the position desired before it was made hot; consequently there was less risk of injuring surrounding tissues or organs inadvertently by dragging, as frequently occurred with the *écraseur*. In many patients it seemed less formidable than the knife. Its action was very expeditious, and also very clean. It was of great utility to the gynæcologist.—Dr. Desmond thought that in case of fibroids, where the os was sufficiently open to allow of the wire being passed readily in, the galvanic cautery would be applicable. In intramural fibroids, the button could be passed so as to clear a hole in the centre of the fibroid. A copious watery discharge would diminish the bulk and reduce the tumour. He had seen it employed without chloroform: the operation was very painless. In using the gas-cautery, it was difficult to maintain a sufficient body of heat where the tissues were moist. It was very useful in amputating the clitoris. Hæmorrhage very seldom occurred.—Dr. Henry Bennet bore testimony to the efficacy of the action of fire in the treatment of uterine disorders. It was a favourite method of Jobert (de Lamballe). He preferred it to caustics, incisions, or leeches. He (Dr. Bennet) thought it was more severe than was justifiable in many instances: he had seen twenty or thirty cases in one day operated on by this method. He had discarded the use of it lately for several reasons. The offensive smell pervading the room was excessively obnoxious to the patients; then it was very formidable, and the mere idea of it terrified them. The effects attained were perfect; but for humanitarian reasons he preferred the potassa cum calce in cylinders. It was easily applied, and required no fire; and patients did not know that they were being operated on unless they were told. This was no novelty; he had described the method in the second edition of his work in 1848.—Dr. Braxton Hicks thought the preceding remarks scarcely applied to the paper. He had brought the subject forward to illustrate cases to which the method was applicable, and he considered it of essential service.

On Decollation as a mode of Delivery in Shoulder Presentation. By Fredk. W. Wright, M.D., Derby—After referring briefly to the opinions entertained by numerous writers on this subject, the author recorded his method of procedure, which consists in passing a simple blunt hook, pierced with an eye carrying a piece of twine or tape, to which are attached half a dozen thin wires made of copper, over the fœtal neck. The presenting fœtal arm is, meanwhile, seized by the right hand of the accoucheur, and considerable traction made upon it until the left fingers are passed over the neck, when the blunt hook is inserted, and traction made so as to enable the operator to withdraw the twine. A leash of copper wire is now attached to this, and traction made at the end of the twine, thus drawing it out of the vagina, while the wire will be drawn in and over the child's neck. By pulling the opposite end of this wire-saw rapidly backwards and forwards, with a saw-like motion, the head of the fœtus may be severed in five seconds. The body is then extracted by the presenting arm; or, if this have been amputated to give room to operate, the body may be readily extracted by means of the crotchet hooked over the clavicle or over one of the ribs. If the decollation be made close to the shoulder, there will be less difficulty in delivering the head, as the whole length of the neck, with its firm groundwork of vertebræ, thus left attached to the head, makes an excellent hold for appropriate instruments. The head is then fixed in the pelvis by external pressure, the neck if possible being made to present; this is then seized by a pair of strong forceps with horned teeth on the inner aspect of both blades, like craniotomy-forceps, and traction made upon it till the head escape externally. Should the neck give way under the efforts at traction, the head may be delivered by (*a*) the forceps, (*b*) the crotchet hooked into the lower jaw, or (*c*) the posterior fontanelle may be perforated and the crotchet introduced within the cranium, and traction made upon one of the cranial bones. The author thus briefly summed up the comparative advantages of the two operations—evisceration and decollation. Evisceration is not generally completed under an hour; decollation is accomplished in a few minutes. In the former, anæsthesia has to be kept up for an hour or more; in the latter, it is either not required at all, or not required for more than a few minutes. In the former, the soft parts of the mother are liable to be lacerated by removal of the bony covering of the viscera; in the latter, the liability stands at zero. In evisceration, the operation is prolonged, bloody, repulsive, and abominable to the last degree; in decollation, the operation is speedy, is not bloody, and is not repulsive in the least degree. In the former, the instruments required are numerous and complicated as well as dangerous; in the latter, the instruments are never more than three, viz., the harmless blunt hook, the simple wire saw, and the toothed forceps for delivery of the head. In the former, there is no reduction of bulk, delivering a fœtus doubled in itself, even though deprived of its viscera; in the latter, the bulk is not increased. Perforation and evisceration are not always sufficient to bring relief to the mother; decollation never fails to bring instant relief and safety to the mother, and is unquestionably simpler, safer, and speedier than evisceration. —Dr. Edis could well understand that in some severe cases, where the uterus was in a state of tonic contraction, this mode of delivery would be of great service, but it was too much to say that no other mode of procedure was justifiable or likely to be successful. Dr. Barnes, in his valuable work, had defined the limits of version and decollation. The method pursued by Dr. Wright was certainly very ingenious, and apparently very efficacious. It was such hints as these that were of much value to the practitioner in the busy routine of every-day practice; and the thanks of the meeting were due to Dr. Wright for bringing forward this contribution.—Dr. Grove (St. Ives) thought there would be great difficulty in passing the hook over the neck: it would be better to have some spring arrangement, like that employed for plugging the nose, or whalebone. In the country, it required a ready wit to act on emergencies.—Dr. More Madden (Dublin) said that in Dublin they regarded it as a great reproach to leave the head *in utero*, and there was always much difficulty in extracting it. The forceps shown, that was employed for this purpose, seemed ingenious: there was only one drawback to it—it was perfectly useless for the object intended, for it was hinged like scissors, and could not possibly grasp the head. We ought to do away with evisceration, and resort to methods of delivery earlier; but of two evils, evisceration was preferable to decapitation.—Mr. Hemming (Kimbolton) thought hardly sufficient stress had been laid upon delivery by natural means. The uterus must be relaxed to allow any spring to pass over the neck.—Dr. Steele remarked that the author suggested decollation as the best means of delivery, and superseding all others. He would admit that the principle was good, and it might be the proper mode of delivery, but he could not go so far as to say that it was the only and the best method. He had never met with a case where he could not turn or eviscerate. In a vast number of instances in which transverse presentation occurred, though very difficult, still turning ultimately succeeded in effecting delivery. He thought the difficulty of getting the hook over the neck was greater than stated; and it was difficult to have the neck presenting, and then to pass such broad-bladed forceps as Dr. Wright suggested through the os uteri would be somewhat trying. Dr. Wright had offered many useful practical suggestions.—Dr. Wright explained that if the finger could be passed round the neck, the hook could be also passed. If the head were removed close to the shoulder, it could be pressed down so as to make the neck present almost at the ostium vaginæ. He had managed it without much difficulty.

A Case of Rupture of the Uterus during Labour, in which the Patient Recovered. By T. More Madden, M.D.—The author alluded to ninety-two cases in which rupture had occurred, only one of the patients recovering. He himself had seen four cases; only one recovered, the details of which were given.

Remarkable Case of Complex Labour. By T. More Madden, M.D. —In this case there was a complete separation of the uterus from the vagina, the rent running round the cervix. It was only discovered by *post mortem* examination. The os had been rigid during the first stage of labour, which occupied thirteen hours.—Dr. Steele did not agree with the theory of the uterus rupturing from violent action. In cases of strong labour, with obstruction, if the women died undelivered, it was from exhaustion, not rupture. Dr. Haughton had shown that the contractions of the uterus were not sufficient to produce rupture of its fibres. He related a case where labour entirely ceased; the patient became faint, collapsed, and died. The rupture found *post mortem* was due to disintegration of the uterine tissues from fatty degeneration or inflammation. These cases were rare. As regarded laceration of the vagina, he had a case where there was a considerable rent in the roof of the vagina; the fingers passed behind the cervix and uterus to the small intestines; opium was given, and the patient left to die, but she recovered.—Dr. Edis asked what one-grain doses of calomel would do for a patient weighing eighteen stone.—Mr. B. Adams thought that the assimilation of medicine was not due to size. He had never seen a case of rupture; but if the patients rallied from the first shock and were put under the influence of opium, they might recover. Moist surfaces healed very rapidly.—Dr. Lyster inquired whether the os was dilated when the forceps was used, and whether it had been placed on the cervix. He had seen that in Dublin the forceps was employed before the os was fully dilated.—Dr. More Madden thought the size of the patient did not influence the dose of the medicine. Respecting the laceration by forceps, none had been used.

The Rectum in its relation to Uterine Disease. By Arthur W. Edis, M.D.—The author was desirous of drawing attention to the important help afforded by the rectum, both as to the diagnosis and the treatment of uterine disorders. Although known to the few, exploration by the rectum seemed scarcely as generally known as its importance would suggest; and, for the relief of pelvic symptoms, there were numerous cases where sedatives applied *per rectum* were of far greater service than when taken in the ordinary way. As regarded the diagnosis of uterine disorders, there were several methods of rectal exploration: viz., the ordinary digital one—useful in cases of retroflexion, fibroid and ovarian tumours, etc.; eversion of the rectum through its sphincter, like the finger of a glove, by pressure from the vagina; manual exploration, as suggested by Dr. Gustav Simon. In reference to the treatment of uterine disorders by the aid of the rectum, the cases were very numerous. Reposition of the retroflexed gravid uterus could readily be accomplished by pressure *per rectum.* The relief of imagined uterine symptoms might often be effected by a proper attention to the condition of the bowels. The question of absorption by the rectum was too well recognised to need discussion. Pessaries and suppositories made of gelatine and glycerine were far more useful than those made with cocoa-butter, absorption being more uniform and certain. In menorrhagia, enemata of ice-cold water, acting by reflex action, proved of great service. In dysmenorrhœa, enemata or suppositories of morphia, belladonna, and other agents, were very useful, and too little resorted to. In the morning-sickness of pregnancy, the most intractable vomiting might often be relieved by opiate enemata or suppositories, and life sustained for many weeks by nutrient enemata. In cancer of the uterus, suppositories were far more useful than pessaries in allaying pain. In chronic constipation, small suppositories of soap or extract of belladonna were of much service. As to diseases of the rectum itself being mistaken for uterine disorder, the mistake was not unfrequent; fissure causing vaginismus, ulcer causing dyspareunia, menorrhagia, etc.—Mr. Anstie (Devizes) endorsed the views expressed in the paper, and stated that the rectum was especially valuable for obtaining relief after delivery. Several years ago, he had a case of epilepsy where an enema was administered, and, after some pains like labour, a large mass of fæces was expelled, with great relief to the patient.—Dr. Matthews Duncan expressed great interest in the paper. He quoted a remarkable case of diagnosis and treatment of extrauterine fœtation which had nearly reached full term: the hand was passed up *per rectum*, and the child turned and delivered, being extracted from the rectal pouch. He feared that great evil would have been produced from incontinence, but the patient retained her fæces three or four days after the operation.—Dr. Smith inquired whether rupture of the sphincter caused much pain. He alluded to a treatment of spermatorrhœa in Paris by the passage of large bougies.—Dr. Steele thought that there was no doubt the rectum was often overlooked. He referred to a case of supposed prolapsus uteri where a pessary had been recommended. On examination, a large hard spherical tumour, which seemed at first to be an ovarian tumour prolapsed, was found pressing through the posterior wall of the vagina. On examining *per rectum*, a dense globular mass of hardened fæces was found: this was broken up and scooped out. It had acted, as Sir James Simpson pointed out, as a ball-valve obstruction to the rectum. The patient had had diarrhœa for several weeks previously. As regarded the rectum being a medium of administration of anodynes, especially opium, it was very useful. He preferred giving the pure liquor opii sedativus, 20 to 30 minims, by means of a small syringe with a silver tube and perforated extremity, thus bringing the agent into direct contact with the bowel and insuring absorption. It was more certain than the usual starch and opium enema.

On Instrumental Aid in the Second Stage of Labour. By J. Craig Waddell, M.D.—The author alluded to the several instruments of extraction known to us—the blunt hook, the fillet, the vectis, and the forceps —and gave his reasons for preferring the vectis to the forceps, being more readily applied, occupying less room in the pelvis, and capable of being applied in any position of the head.

Friday, August 14th.

The Long Forceps, the Short Forceps, and the Vectis. By Edgar G. Barnes, M.D., Eye.—The author recorded his experience in twenty-six cases. In twelve, he employed the long, in fourteen, the short forceps. All the mothers recovered; twenty-four of the children were born alive. He preferred the long to the short forceps, and thought the former, in the majority of instances, far superior to the vectis, which latter was only adopted to remedy malposition of the head, whereas the long forceps accomplished this, as well as remedied slight disproportions between the fœtal head and pelvis, and augmented the deficient *vis a tergo* by supplying a *vis a fronte.* The object of his paper was to promote a discussion on the relative merits of the vectis and forceps.—Mr. Howard thought that there was one objection to the vectis; it could be applied over the face as well as the head.—Dr. Edis remarked that we ought to endeavour to define more clearly the class of cases to which the several aids to labour were adapted. The fillet, where mere traction was required, was still employed by many, but was not the equivalent of the vectis, nor suited for all cases. The vectis, from the description given, combined the action of the lever as well as the tractor, could be employed in altering the position of the head in the pelvis, and was capable of being applied in any position. Doubtless it was most efficacious in hands accustomed to use it. Dr. Copeman seemed to have been most successful in its employment; and, could all attain to such manipulative skill as he possessed, the vectis should largely replace the forceps; but those who were accustomed to use the latter, would hardly understand how the vectis could succeed where this had failed, or deem craniotomy justifiable until the long forceps had been fairly tried. In reference to the forceps only being applicable to the sides of the head, it was a great mistake: the fact being that Nature intimated, by the constuction of the pelvis, that it must be applied laterally as regards the pelvis, irrespectively of the position of the head; and as to not being able to apply the forceps except in the lateral position, it needed only the experience of a few difficult cases, where the patient was perfectly unmanageable, to know that the long forceps could be adjusted in any position.—Mr. Adams employed Ramsbotham's long forceps, with a shank, whenever labour was becoming tedious, instead of letting the patient lie and suffer. He had never had a case of ruptured perinæum, although he had used the forceps in over one hundred cases.—Dr. Steele protested against the common objection of difficulty of applying the forceps. If we only understood the mechanism of labour, there was no difficulty; and if there should be, it was no case for forceps. If the head were so jammed, or so placed, that forceps would not lock, then it was of no use. The vectis could be used as a tractor, and also to alter the position of the head. There were only two cases in which any attempts should be made to alter the position: 1. Where the head was above the brim; 2. Where the head had fully descended on the floor of the pelvis, and was ready to turn. Traction should always be made in the direction of Carus's curve. The long forceps never grasped the head at the sides; the one blade went over the brow, the other obliquely. The object was not merely to pull, but to exert an alternate lever action, first on one side, then the other, wedging the head out. However great the compression might be, the child was given a chance, whereas, with craniotomy, there was none. If the head were jammed in the pelvis it might be only at two points, the promontory and the pubes. There might be plenty of room at the sides of the pelvis. Those who used the vectis with success were like those practitioners who never had a bad case. In one instance, where forceps had been resorted to in two previous labours, he put on Siebold's short forceps, and extracted the child, after efforts at delivery by ordinary forceps had been attempted for more than an hour. The vectis was of no use except in trivial cases, and even then forceps was better; the long double curved one, which took a good grasp, did not require mere traction, but exerted a double lever action.—Dr. Marion Sims, though disclaiming his being an accoucheur, but only a surgeon, stated that he had seen some radical changes within the last twenty years. The forceps was now employed on trifling occasions, and with great success, its use being perfectly justifiable. A young man read a paper in America, in which he stated that he had delivered 1,500 cases by means of forceps; and, on inquiry, he stated that, when he commenced practice, it was in a small town, and he took everything; his time was so precious that he could not wait. After four or five hundred cases of this kind, he found the recoveries were more rapid than when left to the natural efforts. When the Woman's Hospital, in New York, was opened nineteen years ago, there were a considerable number of cases of vesico-vaginal fistula to be operated on; now there were never more than five or six at one time, and these were cases that had been attended by midwives, not by practitioners. He was an advocate for the earlier employment of forceps.—The Rev. A. C. COPEMAN stated, in reply to some remarks that had been made, that in every case in which craniotomy had been employed by his brother (the President), forceps had first been tried; and, in several of the cases, the vectis had succeeded where otherwise craniotomy would have been requisite. This latter proceeding had not been employed as the next step to the vectis. Though a deserter from the medical ranks, he had watched country practice in years gone by; and the reason why the vectis was in disrepute was, that it was employed as a lever. His brother did not use it as such. He had seen it employed in hundreds of cases where both the long and short forceps had failed, and, by simple manual dexterity, delivery had been accomplished. He had long been of opinion that it was both justifiable and useful to apply an instrument in ordinary cases of midwifery.—Mr. YOUNG thought that the forceps was too often used as a tractor and not as a lever, and so failed; they should be used more as a lever.—Mr. SOFFE thought that the relative merits of the vectis or forceps should be decided, and one or other should be taken as a standard for country practice. If the vectis failed, another opinion was sought, and forceps applied. What could the vectis do in cases of the head being arrested at the brim? Giving chloroform by oneself was too great a risk, and this was generally necessary in forceps cases. Many men were deterred from using the forceps by the imagined difficulty. He had often used the vectis in cases where the labour was tedious, and in the first two cases where he employed the forceps he ruptured the perinæum, but stitched it up at once. Both recovered perfectly. He would not say that the vectis was not valuable, but it was impossible that it would supersede the forceps.—Dr. STEELE had not intended to criticise the employment of the vectis, but merely to express a difference of opinion. The celebrated surgeon Liston could pass a catheter with one hand; and we were told that Dr. Copeman could deliver with the vectis where forceps had failed; but, though he might do it, others must not be expected to do the same. Chloroform had never been credited with a single death in parturition. He had employed it to the deepest degree of surgical anæsthesia; in one case for four hours.—Dr. WADDELL thought that no unfavourable remarks as regards the vectis should be made by any who had not put it to the crucial test of experience. It was simply a tractor, easier of application than the forceps, as it did not occupy the whole of the pelvis. The compressive power of the forceps was not so great as stated. Dr. Steele had remarked that the cases where the vectis was used would have terminated naturally; he (Dr. Waddell) did not think so.

On Maternal Impressions. By J. CLAPPERTON, L.R.C.P.Ed.—Mr. Clapperton read a paper on the effects produced upon the fœtus by fright experienced by the mother in the early months of pregnancy. In a large proportion of the cases, the object of fright was a natural object, and the results of the fright were various. In some, a nævus, or mother's mark, bearing a striking resemblance to the object which excited the mother's alarm, was found upon the skin of the fœtus; in others, a graver impression was made, and there was a serious modification or arrest of development induced. In order, however, for this to take place, a certain progress only must have been made by the embryo; a little further development protected it from any very grave modification. In some instances, the changes produced by fright were recurrent in the same individual, the object being different in the separate cases. Mr. Clapperton had met with one of these recurrent cases; in the first instance, the object was a rat, in the second a dog. Other observers had had similar experiences. The actual means by which such modification was produced were not quite determined on, as there had not yet been demonstrated any nervous connection between the mother and her child. Further research, Mr. Clapperton thought, might succeed in demonstrating some nerve-communication to exist. After showing that there were some grounds for supposing that these impressions upon the mother affecting the embryo were not confined to human beings, Mr. Clapperton discussed the importance of these malformations from a diagnostic point of view, and stated from his own experience the puzzling character of the presentation in these cases. The paper was illustrated by a specimen.—Dr. GOYDER stated that he had formerly been opposed to the influence of maternal impressions, until a circumstance in his own experience led to his changing his opinion. He amputated the finger of a man whose daughter, then one month pregnant, assisted at the operation; she expressed at the time great abhorrence. On her confinement, the corresponding finger was absent in the child.—Dr. DRURY mentioned a similar case, where a patient, four months pregnant, when larking with her husband, let fall the lid of the flour-bin on her thumb. When the child was born, the thumb was hanging by a thin piece of skin. In another case there was a secondary thumb with a distinct articulation. The attention of the patient had been directed to the child of a relative born with a supernumerary thumb, where an abscess had formed, which gave the patient a shock.—Mr. CADGE thought the subject one of deep interest and importance. The first thing to consider was, whether there was any real connection between the maternal impression and the results. Sir William Lawrence had written a paper in the *Medico-Chirurgical Transactions* ridiculing the subject altogether. Many children were born with harelip, and yet there was nothing to account for it. In the lower animals deformities occurred, and yet there was no mental reasoning. There were malformations in the vegetable kingdom, and yet there was no mind to receive an impression. The vast accumulation of reported cases outweighed those coincidences. Dr. Goyder had stated that he was not a believer until he had met with one vivid case; he must have met with many malformations without any reason assigned for them. He (Mr. Cadge) did not agree with Sir William Lawrence; the subject could not be disregarded. He could quote cases which would weigh on the other side; a few cases might be mere coincidences, but individual experience carried the conviction that there must be some connection between the impression and the result. The region of pure speculation would not explain it physiologically.—Dr. FOTHERGILL thought the paper of practical value if not of great practical interest. The accumulated evidence showed that there was something in the question. We were not sufficiently familiar with the mental process in animals. In his own case, his mother had been afraid that he (Dr. Fothergill) would be born with one arm off. She was not impressionable, but still she believed it; however, it did not prove correct. As regarded the question of development, Mr. Clapperton had stated that, after a certain time, the development was not arrested. This was a point of interest, as we might satisfy the mother's mind.—Dr. EDIS thought there was much that was interesting in the subject, but the fallacies connected with it were numerous. Many a mother imagined her child would be born with a certain mark or deformity, when a perfectly healthy and natural child resulted; many a malformation, nævus, or other mark, existed in children, where the mother could not ascribe it to any well-marked cause. If all the cases were recorded where the "impression" had given rise to the expression that some malformation would certainly ensue, and yet none had occurred, they would be found to far outweigh the instances where the result verified the impression.

A Case of complete Inversion of the Uterus: Profuse Post Partum Hæmorrhage and rapid Death of the Fœtus. By T. CHAMBERS, M.R.C.P.

A Case of Retroflexion of the Gravid Uterus: Retention of Urine: Vesical Hæmorrhage: Transfusion with Lamb's Blood: Death. By T. CHAMBERS, M.R.C.P.

Obstetric Apparatus.—Dr. E. DIVERS showed an ingenious arrangement for utilising the force usually wasted on the bed-posts, giving comfort and support during labour.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE next meeting of the above District will be held at the Maiden's Head Hotel, Uckfield, on Friday, September 25th, at 3 P.M. Mr. HENRY HOLMAN, of East Hoathly, in the Chair.

All members of the South Eastern Branch are entitled to attend and introduce professional friends.

Dinner will be provided at the usual charge of 5s., exclusive of wine.

Notice of intended communications, etc., is requested by the Secretary, on or before Thursday, the 17th instant, in order that they may be inserted in the circular convening the meeting.

THOMAS TROLLOPE, M.D., *Honorary Secretary.*

35, Marina, St. Leonard's-on-Sea, September 8th, 1874.

MIDLAND BRANCH.

A SPECIAL general meeting of the above Branch will be held in the Assembly Rooms, Boston, on Thursday, September 24th, at 4.45 P.M.

Business: To adopt certain rules for the guidance and management of the Branch. A code of rules will be brought before the meeting for discussion by Dr. Morris (Spalding).

Notes on the Therapeutic Action of certain new Anodynes and Hypnotics. By A. Mercer Adam, M.D., Boston.

On Tobacco. By Francis Snaith, M.D., Boston.

Cases of Cicatrix after Burns successfully treated: with Photographs. By W. Newman, M.D., Stamford.

Case of Primary Excision of the Elbow-joint. By T. Sympson, Esq., Lincoln.

Dinner at the Peacock Hotel, at 6.45 P.M.

In order to facilitate the arrangements, members intending to be present are requested to give notice to the Honorary Secretary with as little delay as possible.

C. HARRISON, M.D., *Honorary Secretary.*

Lincoln, September 9th, 1874.

EAST YORK AND NORTH LINCOLN BRANCH.

THE half-yearly meeting of this Branch will be held at the Hull General Infirmary on Thursday, September 24th, at 1 P.M.; Dr. G. F. ELLIOTT, the President, in the Chair.

The following papers and cases have been promised. 1. Amputation of the Thigh by Esmarch's Method. By R. M. Craven, Esq.—2. Punctured Fracture of the Cranium: with a Case. By Dr. Kelburn King.—3. Oxaluria. By Dr. G. F. Elliott.

The title of any paper intended to be read by a member must be forwarded to me on or before the 21st instant.

The dinner will be held at the Vittoria Hotel at 4 P.M. punctually. Tickets for dinner and dessert, 7s. 6d. each. Gentlemen intending to dine are requested to inform me on or before the 22nd instant.

ROBT. H. B. NICHOLSON, *Hon. Sec.*

Hull, September 17th, 1874.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

THE next meeting will be held at the Granville Hotel, Ramsgate, on Thursday, September 24th, 1874, at three o'clock; JOHN B. THOMSON, Esq., of Ramsgate, in the Chair. Dinner at five o'clock precisely. Charge, 5s., exclusive of wine.

Notices have been received of the following communications to be read at the meeting. 1. Mr. Teevan: The Treatment of Retention of Urine.—2. Mr. Hicks: On Manual and Instrumental Interference in Labour.—3. Mr. Raven: On Aphasia as a Complication of Enteric Fever.—4. Mr. Woodman: On a Fatal Case of Spontaneous Hæmorrhage.—5. Mr. Arthur Long: On a Case of Scrotal Hernia, with Complications.

Gentlemen who intend to be present at the dinner are particularly requested to inform me on or before Tuesday, the 22d instant.

EDWARD W. THURSTON, *Honorary Secretary.*

Ashford, September 14th, 1874.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE next meeting is appointed to be held at St. Bartholomew's Hospital, Rochester, on Friday, September 25th, at 4 P.M.; ADAM RAE MARTIN, Esq., in the Chair.

Dinner will be provided at the Bull Hotel at 6 P.M.

Papers and subjects for discussion:—Modes of Death in Hernia after Operation; Puerperal and Uræmic Convulsions; Provident Dispensaries; Hospital Out-Patients; etc.

FREDERICK J. BROWN, M.D., *Honorary Secretary.*

Rochester, September 7th, 1874.

SHROPSHIRE ETHICAL BRANCH.

THE Annual General Meeting will be held at the Lion Hotel, Shrewsbury, on Monday, October 5th, at 1 P.M. The President, W. A. DAVIES, Esq., in the Chair.

Subjects for discussion.—The Revised Tariff of Medical Fees; The Proposed Tariff of Surgical Charges; The Suggested Preface thereto. Cases and communications by members.

Dinner will be served at 3 P.M., for the convenience of the country members. Tickets, exclusive of wine, 7s. 6d.

Members have the privilege of introducing friends, on transmitting their names to the President.

Chamber Concert Music by a select Band of Musicians, under the leadership of Mr. Appleby of Liverpool, will be provided, as usual.

Gentlemen intending to read papers, etc., will oblige by communicating their titles (for insertion in the 'circular note' of invitation), before the 8th proximo, to

JUKES STYRAP, *Honorary Secretary and Treasurer.*

Shrewsbury, August 31st, 1874.

SOUTH MIDLAND BRANCH.

THE eighteenth autumnal meeting of this Branch will be held at Newport Pagnell, on Tuesday, October 6th, at 2 P.M.—The President ROBERT DE'ATH, Esq., in the Chair.

Gentlemen intending to read papers, etc., are requested to furnish the titles before the 28th instant, to Dr. Bryan.

WM. MOXON, *Honorary Secretary.*

Northampton, September 13th, 1874.

CUMBERLAND AND WESTMORLAND BRANCH: ANNUAL MEETING.

THE annual meeting of the above Branch was held at the County Hotel, Carlisle, on Wednesday, July 29th, 1874: Dr. Tiffen, of Wigtown, in the Chair.

Report of Council.—The SECRETARY read the sixth annual report of the Council. At the commencement of the year, there were sixty-four members on the list. Eight new members have been elected, three have retired from the Branch, and one has died, so that the number at present on the list is sixty-eight. The usual number of general meetings have been held, and it is gratifying that, from the number and value of the papers read, the Branch has not shown any falling off in activity. At the autumn meeting, a proposal was made by the Secretary to extend the limits of the Branch, so as to include members of the profession residing in the adjoining border counties, and a committee was appointed to make the necessary inquiries, and report on the feasibility of the scheme. Your Council, viewing with great satisfaction this proposal, are gratified to find that it has met with the hearty approval of a large number of gentlemen residing in the counties of Dumfries, Kirkcudbright, Wigtown, Roxburgh, Selkirk, and Peebles; and that at this meeting certain alterations in the rules will be submitted to carry out the object in view. From the financial statement appended, it will be seen there is a considerable surplus in hand. The Council, having had various plans under consideration, beg to recommend that a donation from the Branch of £10 be made to the British Medical Benevolent Fund

Financial Statement.—The balance in hand at the commencement of the year was £12 10s. 8d. The amount of subscriptions and arrears received was £5 10s.; total, £18 0s. 8d. The expenditure was £5 16s., leaving a balance in hand of £12 4s. 8d. The report was unanimously adopted.

Medical Benevolent Fund.—The CHAIRMAN moved that a donation of £10 be paid out of the funds of the Branch to the British Medical Benevolent Fund.—Dr. CAMPBELL seconded the motion, and it was unanimously agreed to.

Travelling Expenses of the Secretary.—Dr. CONNEL moved that it be recommended to the Council to take into consideration the payment of the travelling expenses of the Secretary to the meetings of the Committee of Council, as well as to the general meetings of the Branch.—Dr. CAMPBELL seconded the motion, and it was unanimously carried.

Public Health Section.—In the absence of Dr. Page, it was resolved that no further steps be taken in regard to the formation of a Public Health Section.

Alteration of Rules.—The subcommittee appointed for this purpose reported that they had met to consider the alterations in the rules necessary to carry out the extension of the Branch, and Dr. TIFFEN moved the alterations agreed upon. In Rule 1, line 1, it was proposed to read "border counties", in place of "Cumberland and Westmorland". The effect of this was to change the title of the Branch.—The motion was seconded by Dr. CAMPBELL.—Dr. TAYLOR moved, and Dr. LELAND seconded, that the title of the Branch be "Cumberland and Westmorland and Border Counties Branch". After some discussion, the amendment was withdrawn and the motion carried. The other alterations were carried unanimously, and were as follows: In Rule 1, line 2, after Westmorland, read "Dumfries, Kirkcudbright, Wigtown, Roxburgh, Selkirk, and Peebleshire". In Rule 11, line 2, read "these counties", in the place of "the locality". In Rule 111, line 2, read "two honorary secretaries, one of whom shall also act as treasurer, and nine other members", in the place of "an honorary secretary, who shall also act as treasurer, and six other members".

After the adoption of these alterations, Dr. Tiffen vacated the chair, and introduced the President elect, Dr. GREEN of Kendal.

New Members.—The following gentlemen were then elected members of the Branch: Robert Cory, M.B., Carlisle; Wm. J. Carlyle, M.D., Langholm; Jos. Barber, M.B., Johnstown Bridge, Lockerbie; Wm. Macinsloe, M.D., Lockerbie; Ed. Hoggan, M.D., Thornhill; James J. Hardesty, L.R.C.P. and S.E., Galashiels; Walter Lorraine, M.D., Castle Douglas: J. Brydon, M.D., Hawick; C. Ford, M.D., Mains Riddell, Dumfries; J. Nichol Cox, L.R.C.S.E., Gatehouse-on-Fleet; S. Grierson, M.R.C.S., Roxburgh District Asylum, Melrose; J. M. M'Cullock, M.D., Dumfries; J. Connell, M.D., Peebles; J. Bruce, M.D., Casbledgykes, Dumfries; W. E. B. Atthill, M.R.C.S., Waterbeck; J. Gilchrist, M.D., Dumfries; John S. Muir, M.B., Selkirk; Alex. Thomson, M.D., Dumfries; D. McLeod, L.R.C.S., Hawick; J. Munro, M.D., Moffatt.

Election of Office-Bearers.—Dr. CAMPBELL moved, and Dr. TIFFEN seconded, that the election of office-bearers be deferred until the autumn meeting, and that the present officers conduct the affairs of the Branch until that time. The object of this was to give the new members an opportunity of taking part in the election. This was agreed to.

Election of a Vice-President.—Dr. TAYLOR moved, and Dr. CAMPBELL seconded, that Dr. Tiffen be elected a Vice-President, in accordance with Rule IV. The motion was carried unanimously.

Representatives to the General Council.—The SECRETARY reported that last year's representatives had been nominated by the Council, as the new laws of the Association required the names to be forwarded to the General Secretary before June 18th. The nomination was confirmed.

President's Address.—Dr. GREEN delivered his inaugural address on Public Health, the new Sanitary Laws, and Officers of Health. At its conclusion, a vote of thanks was cordially awarded to him.

Dinner.—The members and their friends afterwards dined together.

CORRESPONDENCE.

TAPPING THE CHEST.

SIR,—I wish to draw the attention of your readers to the fact, that not only in tapping the chest, but in most other operations where the aspirator is used, the present unprotected needle is a source of danger; in fact, my own attention was first drawn to the fact in the case of an old gentleman whose bladder I had to tap several times for retention of urine; each time that I did so, towards the end of the operation, I drew away nearly pure (florid) blood; and, as the patient was in a very low condition, I have but little doubt that this loss hastened his end.

In the *Lancet* of last week, a case of hydrops pericardii is reported, where Dr. S. Smith, of the Bristol Royal Infirmary, used the aspirator. "One of the largest-sized tubes of Dieulafoy's aspirator was plunged into the chest; several ounces of perfectly clear serous fluid were drawn off by suction; but the fluid became gradually more and more coloured till it appeared to be mere blood. Ten ounces of fluid were removed. The area of cardiac dulness had considerably diminished, and the dyspnœa was much relieved for a few minutes; but the dulness increased again in about ten minutes after the removal of the instrument, and the patient had still considerable difficulty in breathing. The last few ounces of fluid looked like undiluted blood, and the whole quantity of fluid became a coherent mass of coagulum after standing." I think anyone reading this account must come to the conclusion that, after the removal of the serum, the point of the needle must have come into contact with and pierced or scratched the walls of the beating heart itself. Although the patient recovered, I cannot conceive that any good could possibly have been done by the operation. Blood was substituted for serum in the pericardium, rendering, I should think, the process of absorption more difficult than it was before.

I assume, of course, that an unguarded needle was used in the case; and if, as Mr. Brown, in your last week's JOURNAL, asserts, guarded trocars have been manufactured for more than twelve months, may I ask why such an instrument was not employed in a case in which its use was so prominently indicated? I must assume that Dr. Smith, like myself, had never heard of them. Mr. Brown makes no mention of how the trocar is guarded, nor what precautions are taken to prevent the entrance of air.

Dr. Powell suggests a modification of Thompson's trocar. Although he does not seem to have ever used it with the aspirator, yet I have no doubt it would be effectual. The great objection I see to it is, that it would require one person's entire attention to hold and steady the trocar when partly withdrawn from the cannula, and on this account would be much more troublesome to manage than a double needle. I cannot believe, with Mr. Brown, that any amount of suction would be sufficient to rupture any vessels, however delicate. The natural state of all serous cavities is one of complete exhaustion; and, as the vessels of membranes lining these cavities do not naturally bleed, I do not see that any amount of suction by the aspirator can make them do so.

I have sent one of my needles for your inspection. By a slight rotation, the needles are locked, both when the outer needle is in advance ready for insertion, and also when retracted and shielded by the inner one. The small central notch is to admit of the inner needle being removed from the outer to allow of cleansing the instrument, as also of placing a small quantity of some fat between the needles, and thus doing away with any small chance there may be of air passing in between them.

As you will see, the point is of steel, and the needle, by being double, is so strong, that there cannot arise the least chance of its bending—an inconvenience which often occurs with needles as at present constructed. I am, etc., ALFRED GODRICH.

140, Fulham Road, August 29th, 1874.

MILK-ABSCESS IN CHILDREN.

SIR,—I would have hesitated before sending you my case of milk-abscess, if I had known that it was so common as it appears to be from the letters of your numerous correspondents. Yet I may observe that what I wished principally to establish is the fact, that the secretion occasionally seen in the breasts of infants is truly *milk*, as determined by microscopical observation, and not, as Dr. Barnes says, "some sebaceous matter essentially resembling milk". *Sebum* is tallow or suet, and how could that essentially resemble milk? Most of your correspondents attribute mammary abscess in children to rough usage by the nurse in her endeavours to improve the nipples. Such a custom is, I think, unknown at least in any part of Scotland where I have been. I have asked a gentleman who has been in very extensive practice for about fifty years, and it was unknown to him. This may account for the comparative rarity of mammary abscess in infants in Scotland, although the retention of milk may occasionally produce it. The gentle evacuation of this fluid by a person's mouth seems to me to be the best way of getting rid of the milk, although I altogether protest against any rough usage. I may mention that my case got rapidly well by treatment on general principles. This early lactation is not mentioned in Dr. Carpenter's fifth edition of the *Principles of Human Physiology*, or any other work which I happen to possess. I do not quite understand Mr. W. G. Davis, when he says: "The old adage occurs to me when I reflect on the matter as looked upon scientifically—*parturiunt montes*, etc." This rather trite quotation would indicate that we had all been making "much ado about nothing". Now, a little before, he tells us that in many cases he thought death would occur to his little patients from the rough usage to which they had been subjected, and that he made a "strong declamation against the practice", etc., with the effect of putting a stop to it. When the mountains were in labour on that occasion, the mouse that was born must have been a venerable mouse, the very king of mice. Possibly, being a Scotchman, I naturally fail to see the joke; but it is no joke to the poor innocents who are subjected to such barbarous treatment as this discussion has been indirectly the means of making known.

I am, etc., WILLIAM STEPHEN, M.D., M.A.

Fettercairn, August 1874.

ON THE ANTISEPTIC TREATMENT OF PUERPERAL PYÆMIA.

SIR,—It may interest Dr. Macleod and others to know that intra-uterine injection of permanganate of potash has been found useful by others in the treatment of puerperal pyæmia. I have been accustomed to prescribe it frequently during the last two or three years, and with the most satisfactory results. The usual prescription has been two drachms of solution of permanganate of potash to a pint of water at 90 deg., to be injected with a Higginson's syringe night and morning. I have recently seen a case of intrauterine abscess, in a girl of 16. After an incision followed by a copious discharge of pus, the permanganate was injected daily through a catheter into the uterus, until the solution came away clear; and the case has terminated in entire convalescence. I am, etc., FRANCIS H. PARSONS, M.D.

Admiralty Sick Quarters, Barking, Aug. 31st, 1874.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

OUTBREAK OF TYPHOID FEVER AT BRIERLY.

The North Brierly Local Board of Health having requested an investigation into the causes of the recent severe outbreak of fever in their district, Dr. Thorne Thorne was deputed by the Local Government Board to make an inspection and report thereon. The inquiry occupied three days, and the following is a summary of his report.

The outbreak was originally ascribed to the disposal by irrigation of refuse from a knacker's yard on to a farm at Bradford. Dr. Gamgee of Owens College, however, who had been consulted, considered that opinion to be erroneous, and Dr. Thorne Thorne, after an impartial and independent survey, agreed with Dr. Gamgee. The disease first appeared on April 17th last, a dairyman having been attacked in a mild form; this case was followed by two others in the same house, until, at the time of the report, sixty-five persons had been attacked. The hamlet infected contained eighty-seven houses; the inhabitants of thirty-eight were supplied with milk from the infected dairy. Of these thirty-eight houses, fever had prevailed in twenty-three; whereas, in the remaining forty-nine houses, fever had appeared in eleven only. The occurrence of the fever in so great a proportion in the houses using this milk indicated that some cause was in operation there which was not affecting the others. The water, drainage, and closet accommodation were so utterly bad throughout the whole place alike; nor could the spread of the disease be ascribed to the refuse of the knacker's yard. There was, however, the fact, that one set of houses used milk supplied from an infected dairy, and the others did not. Unfortunately there were so many ways in which milk was a means of distributing poison, that it became impossible to exclude any of them. The use of polluted water in cleaning cows might have produced it. In this case, the water had been analysed, and proved to be little better than "filtered sewage". The first patient's linen was washed in a small scullery in which milk was kept sometimes, and in which the cows were constantly being cleansed. Whether this poisoning of enteric fever was received into the system by drinking of water, or milk, or anything else, the proportion of persons seized with the disease was much greater than where it arose from the inhalation of poisonous gases. Enteric fever once existing in a place like Brierly Lane could hardly fail to spread. Excrementitious matters thrown on open and wet middens were constantly evolving the results of decomposition, and in that way the air was poisoned. The drains were foul trenches, and even old ditches, close to the houses, ensuring stagnation and decomposition of contents. The pipes for conveyance of slops were carried into these cesspools, special care being taken to avoid trapping; so that the interior of the drains was in direct communication with the interior of the dwellings, and to such an extent had foul air been forced into the houses, that people were in the habit of corking up their sink-holes during the night. Candles held over the sink-holes were blown out; and, when the sewers required disinfecting, the liquid had to be poured down the sink-pipes, which formed the only ventilation of the sewers. Dr. Thorne did not attribute all cases to the use of the milk from the infected dairy; for, when once the disease was started, other powerful means for its distribution came into operation. Respecting the cause of the outbreak, the first patient had been in the habit of travelling until within two days of his illness to and from Bradford, where fever prevailed almost continually. Dr. Thorne came to the conclusion that this outbreak had been due primarily to the use of milk from an infected dairy, and that its subsequent spread had been ensured by the bad means of drainage and of excrement-disposal in the place. Thorough disinfection of privies and drains, and the cutting off of direct communication between the houses and sewers, were immediately required to be done.

INFECTED HOUSES.

The authorities at Newmarket have instituted proceedings against several persons recently for not having taken proper precautions to prevent the spread of the disease during the late epidemic. Mrs. Hills, landlady, of High Street, was charged with having unlawfully and knowingly let to one John Smith part of the house in which one Samuel Pavis, who was suffering from small-pox, had theretofore lived, without having the said house and the articles therein disinfected to the satisfaction of a qualified medical practitioner. The case having been proved, the magistrates fined the defendant in the mitigated penalty of £5 with costs, and consented to the renewal of the licence, the house having been duly certified by the medical officer of health. The Bench considered the propriety of renewing the licence of Matthew Whittome, of the "Rising Sun", his house having been infected by small-pox during the recent contagion; and decided, under the circumstances, not to refuse the licence. The town is reported to be free from the disease.

ISOLATION OF INFECTIOUS PATIENTS.

The Durham Urban Sanitary Authority having applied to the Local Government Board for sanction to use the infirmary and fever wards of the union workhouse for non-pauper cases of fever diseases, received a reply to the following effect. "The sick wards now in use at the workhouse are far from being in a satisfactory condition, and the infirmary ought to be taken into general use for the sick poor and the poor only of the union. The Board think it would be desirable for the rural sanitary authority to consider whether they should not make provision elsewhere than at the workhouse for the care and isolation of non-pauper patients suffering from infectious disease. While, therefore, declining to assent to the present proposal of the Durham Rural Sanitary Authority, the Board will be ready to consider any observations the sanitary authority may wish to make upon the subject."

VACCINATION GRANT.—The Local Government Board has awarded Mr. Julian Willis, of the New Winchester and Andover Unions, the sum of £6 11s. for efficient vaccination in his respective districts.

At a recent meeting of the Marylebone Guardians, the Clerk read a letter from Mr. Benson Baker, Medical Officer to the Christ Church District, stating that he thanked the guardians for desiring him to withdraw his resignation, but his health was such that he must persist in it.

APPOINTMENTS.

BRAMWELL, John Wm., L.R.C.S., appointed Medical Officer for the Workhouse and the Tynemouth District of the Tynemouth Union, Northumberland.

COOMBS, Carey P., M.D., appointed Medical Officer to No. 3-2 District of the Shepton Mallet Union.

FFOULKES, J. A. Langdon, Esq., appointed Medical Officer and Public Vaccinator to the Patterdale District of the Westward Union, *vice* Martindale, deceased.

FOX, Charles, M.R.C.S., appointed Medical Officer for the Topsham District of the St. Thomas Union, Exeter.

GIVEN, Marcus, L.K.Q.Q.P.I., appointed Medical Officer and Public Vaccinator for the Blesington and Ballymore-Eustace Dispensary District of the Naas Union, co. Kildare, *vice* Robinson, resigned.

HEGINBOTHAM, Edmond, M.D., appointed Medical Officer to No. 3-3 District of the Shepton Mallet Union.

*HEWARD, J. M., M.R.C.S., appointed Medical Officer to the Stamford Urban Sanitary District.

HODGSON, William, M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Aspatria District of the Wigton Union.

HYATT, James T., M.R.C.S., appointed Medical Officer to No. 3-1 District of the Shepton Mallet Union.

JEFFERSON, Thomas J., M.D , appointed Medical Officer to the Market Weighton District of the Pocklington Union.

M'CARTHY, Edward, M.D., appointed Medical Officer and Public Vaccinator for No. 3 District of the Dursley Union, Gloucestershire, *vice* Doyle, resigned.

MACPHERSON, Charles, M.B., appointed Medical Officer for the parish of Stromness, Orkney, *vice* Traill, deceased.

ROBERTSON, John Alexander, M.B., appointed Parochial Medical Officer and Public Vaccinator for Wemyss, Fifeshire, *vice* Bonthron, deceased.

ROBISON, David, L.F.P.S.Glasg., appointed Medical Officer to the Allonby District of the Wigton Union, Cumberland.

STEPHENS, Thomas, M.R.C.S., Eng., appointed Medical Officer of Health for the Tynemouth Urban Sanitary District.

WALKER, Charles E., M.R.C.S.Eng., appointed Medical Officer to No. 3 District of the Chesterton Union.

WALKER, William, M.D., appointed Medical Officer to Eastwood, Renfrewshire.

MILITARY AND NAVAL MEDICAL SERVICES.

COURT-MARTIAL ON A NAVAL SURGEON.—Dr. Leech, of H.M.S. *Beacon*, has been tried by court-martial at the Cape for desertion, and ordered to be dismissed the service.

DEPUTY-SURGEON-GENERAL H. M. FRASER, M.D., has been appointed Principal Medical Officer of the Military Prison at Greenlaw, on retiring on half-pay. Dr. Fraser entered the Army Medical Department, September 11th, 1849; became Surgeon, October 2nd, 1857; and Surgeon-Major, October 15th, 1869. He served in the Indian mutiny campaign, including the siege and capture of Lucknow, where he acted as Sanitary Officer to the Forces under the Commander-in-Chief. He was also present at the operations resulting in the taking of Sandee, in October 1858, when he was Chief Medical Officer with the Forces under Brigadier Hale (medal with clasp).

CANDIDATES' MARKS.

SIR,—Although I am not a candidate for either the Indian or the English Medical Services, yet, in justice to the candidates for the latter service at the recent competitive examination, I must ask you to allow me to make two remarks on the letter of "Amicus Curiæ", published in your number of the 5th instant.

In quoting the marks of candidates passing out from Netley, he says: "The highest marks for the Indian Service at the last examination were 5,868. The highest given to candidates for the Army Medical Service were 4,841." And, in concluding, he says: "Still worse, at the last examination (August 10th) for the Army Medical Service, the highest mark was only 2,525."

Now, to any one who does not understand the arrangement of the examinations, it would seem that the 2,525 marks are to be compared with the 5,868 or the 4,841 marks; whereas, in point of fact, the 2,525 marks are the result of *one* examination (viz., that for admission to Netley), while the 5,868 and 4,841 marks represent the aggregate gained at two distinct examinations (viz., that for admission to, and that on passing out from, Netley).

In the second place, "Amicus Curiæ" quite omits to state that while, at the last examination (August 10th) for the Army Medical Service, the highest mark gained was 2,525 (which, I think, he will find is higher than on some previous occasions), yet, at the same examination by the same papers, the first out of the twenty-eight competitors for the Indian Medical Service failed to gain that amount by nearly two hundred marks. I am, etc., JUSTITIA.

September 1874.

ARMY MEDICAL APPOINTMENTS.

DAVIDGE, Surgeon G. A., to be Surgeon-Major, vice W. M. Calder, retired on temporary half-pay.

GORDON, Surgeon-General C. A., M.D., C.B., appointed Principal Medical Officer of the Madras Army.

NAVAL MEDICAL APPOINTMENTS.

BENTHAM, Surgeon Robert, to the *Glasgow*, additional, for disposal.

BRADLEY, Staff-Surgeon James P., second class, to the *Duke of Wellington*, additional, for temporary service in the *Penguin* transport.

COLLET, Surgeon James A., to the *Repulse*.

COLLINS, Surgeon H. B., to the *Audacious*, additional, for disposal.

ENRIGHT, Surgeon John F., M.D., to the *Indus*.

M'IVER, Surgeon Donald, M.D., from the *Topaze* to the *Caledonia*.

McLURDY, Staff-Surgeon B. H., second class, to the *Devastation*.

REDFERN, Surgeon T., M.D., from the *Hector* to the *Rocket*, commissioned.

TROWSDELL, Surgeon Alexander B., M.D., to the *Orwell*.

TURNER, Surgeon Robert, to the *Topaze*.

WHITLEY, Surgeon A. W., from the *Royal Adelaide* to the *Euphrates*.

WILSON, Surgeon John W., M.D., from the *Sultan* to the *Lapwing*.

OBITUARY.

FRANCIS EDMUND ANSTIE, M.D., F.R.C.P.,

PHYSICIAN TO THE WESTMINSTER HOSPITAL, ETC.

DR. FRANCIS EDMUND ANSTIE was born at Devizes in December 1833. Having been educated at a private school, he was in 1849 articled as a pupil to his uncle Mr. Thomas Austie, a surgeon in practice at Devizes. As a boy, he was remarkable for his appreciation of a higher class of literature than usually attracts lads of his age, and for unusual quickness of apprehension.

In 1853, he entered the medical school of King's College, where he was noted as a hard-working student, but was not then remarkable for the great energy which he afterwards displayed. He was very popular among his fellow-students, whom, being a good musician, he often delighted with his talent. He had a great affection for his teacher, Dr. Todd, to whom he was clinical clerk. In the Hospital, he filled the resident offices of House-Physician and Physician Accoucheur's Assistant; but, after becoming qualified, he did not again engage in the practice of midwifery.

He graduated as M.B. of the University of London in 1857, and took the degree of M.D. in 1858. He was elected a Fellow of the Royal College of Physicians in 1865.

He was for some time Physician to the Chelsea, Brompton, and Belgrave Dispensary in Sloane Square, and in 1861 became attached to the Westminster Hospital as Assistant Physician and Lecturer on Materia Medica and Toxicology. Subsequently, for some years, he has been Physician to the Hospital and Lecturer on Medicine.

He was the author of works on *Stimulants and Narcotics* (1869), of the articles "Alcoholism" and "Neuralgia" in Dr. Reynolds's *System of Medicine*, and of *Notes on Epidemics in* 1866. These published works, however, represent but a small portion of the literary work which he did. He edited the *Practitioner* from its commencement, and contributed numerous articles to various journals, reviews, year-books, etc. For the last ten years, his labour was great; and he scarcely ever allowed himself rest. His facility of composition was very great.

For some months before his death he had been carrying on, in the physiological laboratory of Westminster Hospital, a laborious series of experiments (not yet completed) on the determination of the quantity of urea excreted under various conditions.

On Sunday, September 6th, he wounded a finger of his right hand in a *post mortem* examination of a child. He complained of his arm on Tuesday and Wednesday (the 8th and 9th), and poulticed his axilla on the latter day; but, although he had spoken about his arm to two or three medical friends, he never seriously consulted any one till Thursday, when he sent for Mr. Brudenell Carter, who called in Drs. George Johnson and Burdon Sanderson to his aid. Coma, pleuropneumonia, and erysipelatous patches on the pectoral region of the side where the hand was wounded, appeared; and he died at 2.30 on Saturday last, with symptoms of clot in the heart.

EDWARD CUTLER, F.R.C.S.

THIS gentleman, whose death we briefly recorded in our last number, was the son of a clergyman, and was born at Wimborne, Dorset, in 1796; consequently, at his death on the 8th instant, he was more than 77 years old. At first, Edward Cutler selected the navy as his profession; but, proving to be very prone to sea-sickness, he forsook the sea and entered St. George's Hospital as a student of medicine. He became a member of the College of Surgeons in 1820, and was appointed a surgeon in the second regiment of Life Guards. At this period, his happy characteristic of being able to make friends was very marked; and those whom he attracted to him in the army remained his staunch friends through life. He next became Sir Benjamin Brodie's assistant, and remained such until he was elected Assistant-Surgeon to St. George's Hospital. In rotation, he became Full-Surgeon to that institution, also Surgeon to the Lock Hospital; and was finally appointed Consulting-Surgeon to both those hospitals. He was made a Fellow of the College of Surgeons at the first election of Fellows in 1843, and was at one time a member of Council of the College. Although he had done nothing for the literature of his profession, he was an excellent operator and a good practical surgeon. He has never been surpassed, rarely equalled, in the facility with which he performed perineal section. He possessed great good judgment and common sense, and was highly sensitive to anything like professional wrong of any kind. He was a great favourite with a large circle of friends, was greatly respected, and enjoyed at one time a large and lucrative surgical practice.

GEORGE GREENE, M.D.

THE late Dr. George Greene practised in Ramsay, in the Isle of Man, and the surrounding country. He had followed his profession in the district of his choice for upwards of fifteen years. His worth as a practitioner was well and widely known, and his skill highly valued. The extent of his labours brought him almost unceasing toil by day, with rest too frequently broken or lost at night. This told its tale in a very severe attack of rheumatic fever, from which he recovered, though with a damaged heart. He still worked on, but excessive wear and tear brought on, a few weeks back, a still more serious and fatal illness. On August 4th, in the thirty-sixth year of his age, he sank, after days of constant and most trying suffering, borne with exemplary patience. His death is premature; his loss is deeply and widely lamented.

ROBERT PATON, M.D., MORPETH.

DR. ROBERT PATON died at his residence, near Morpeth, on August 15th, after a lingering illness of nearly eight months. Early in the autumn of last year, he found himself at times out of his usual health, but the exigencies of a large country as well as town practice prevented him from obtaining that continuous rest, which, if enjoyed at the right time, might have re-established his health. About Christmas, he was seized with an attack of pleuro pneumonia, which returned at intervals, superinducing consolidation of the left lung, and carrying him off at the comparatively early age of 58. He was a native of Douglas, in Lanarkshire, where he received his preliminary education. He took his professional course at Anderson's University, Glasgow, and proved a distinguished student, carrying off several prizes in the department of surgery. His first qualification was the licence of the Royal College of Surgeons, Edinburgh, but after he had been a short time in practice, he took his degree of M.D. at St. Andrew's. On obtaining his surgeon's diploma, he went as ship's surgeon to several ports on the Coast of Africa, mainly with the view of recruiting his health. Having practised two years at Wishaw, he removed to Dunse, and shortly afterwards accepted an appointment under one of the Oriental shipping companies, in which capacity he made several voyages to the chief seaports of India. At the outbreak of the Crimean war, he joined the extra medical staff, and rose to be a Staff-Surgeon of the First Class in the Turkish Contingent. Having gone through the whole of the Crimean war, he was at its close honoured by having the Imperial Order of the Medjidie conferred upon him. On his return home, he first settled in Manchester; but, after a residence of less than two years there, he returned to Morpeth, where he practised his profession with ability and success for sixteen years. He held several appointments under the Board of Guardians, among others, medical officer to the union workhouse.

Dr. Paton married a daughter of the late James Watson, Esq., writer, of Dunse. Mrs. Paton and a family of six sons and three daughters survive.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 3rd, 1874.

Murrell, William, Yorke Street, St. James's Square
Norman, Joseph Clement, Swinton, Yorkshire
Smith, Sydney Lloyd, 281, Brixton Road

The following gentleman also on the same day passed his primary professional examination.

Phelps, William, Guy's Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 10th, 1874.

Crétin, Eugène, St. Bartholomew's Hospital
Fox, Richard Hingston, Stoke Newington
Higgs, Augustus Wm., 320, Marylebone Road
Vanes, Arthur Bayly, Carrs Lane, Birmingham
Wright, John Sydney Albert, Horsham

The following gentleman also on the same day passed his primary professional examination.

Howard, Edwin, St. George's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ATKINSON-MORLEY CONVALESCENT HOSPITAL—Resident Medical Officer: £75 per ann., furnished rooms, and board. Applications, 7th October, to Charles L. Todd, Secretary, St. George's Hospital.

BEDFORD GENERAL INFIRMARY—House-Surgeon: £100 per ann., board, rooms, etc. Applications, 3rd October, to the Chairman of the Weekly Committee.

BELGRAVE HOSPITAL FOR CHILDREN—Physician.

BLACKBURN AND EAST LANCASHIRE INFIRMARY—House-Surgeon: £100 per annum, board, lodging, etc. Applications, 22nd inst., to Joseph Eastwood, Secretary.

BRISTOL GENERAL HOSPITAL—Physician's Assistant: £50 per annum, board, lodging, etc. Applications, 24th inst., to Henry Fox, R.N., Secretary.

BURY ST. EDMUNDS INCORPORATION—Medical Officer for the Workhouse: £30 per annum, and fees.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon: £80 per annum, board and lodging. Applications, 13th October, to the Secretary.

CUMBERLAND INFIRMARY, Carlisle—Resident Pupil, Assistant to the House-Surgeon. Applications to John Laver, Secretary.

DORSET COUNTY HOSPITAL—House-Surgeon: £70 per annum, with £10 per annum additional as Secretary, apartments and board. Applications, 23rd instant, to C. W. Bingham, Chairman.

GLASGOW MEDICAL MISSION—Superintendent: Not less than £250 per annum.

KENT—Public Analyst: 21s. per analysis for the first hundred; 10s. 6d. per analysis for the second hundred: 6s. per analysis beyond. Applications, 12th October, to F. Russell, Clerk of the Peace, Maidstone.

LANCASTER CASTLE—Surgeon. Applications to the Clerk of the Peace, Preston.

LANGPORT UNION, Somersetshire—Medical Officer and Public Vaccinator for No. 1a District: £80 per annum, and fees. Applications, 22nd instant, to J. F. H. Warren, Clerk.

LINCOLN UNION—Medical Officer for No. 6 District: £30 per annum.

LIVERPOOL DISPENSARIES—Hon. Medical Officer to the North Dispensary. Two Assistant House-Surgeons: £108 per annum, increasing to £128, furnished apartments, etc. Applications, 23rd instant, to Wm. Lister, Secretary, Moorfields, Liverpool.

LUTTERWORTH UNION—Medical Officers for No. 1 District and the Workhouse: £85 per annum and fees, and £30 per annum. Applications, 23rd inst., to James Driver, Clerk.

METROPOLITAN FREE HOSPITAL, Devonshire Square—Assistant House-Surgeon; Board, washing, rooms, etc. No salary.

MITCHELSTOWN UNION, co. Cork—Medical Officer and Public Vaccinator for the Galbally Dispensary District: £100 per annum, and fees. Applications, 23rd instant, to the Honorary Secretary.

NORTHAMPTON FRIENDLY SOCIETIES MEDICAL INSTITUTE—Assistant Medical Officer: £100 per annum. Applications, to George Knight, Secretary, 22, Cromwell Street, Northampton.

OLDCASTLE UNION, co. Meath—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Virginia Dispensary District: £100 per ann., and fees. Applications, 24th instant, to John O'Reilly, Honorary Secretary.

ROTHERHAM HOSPITAL AND DISPENSARY—Resident Pupil.

ROYAL UNITED HOSPITAL, Bath—House-Surgeon, £60 per annum, board, and residence. Applications, 21st instant, to W. L. Saunder, Secretary.

QUEEN'S COLLEGE, Birmingham—House-Surgeon: £250 per annum, board, lodging, and washing.

ST. GEORGE'S HOSPITAL—Visiting Apothecary Applications, 14th October, to C. L. Todd, Secretary.

ST. MARYLEBONE—Medical Officer for the Christchurch District: £230 per annum. Applications, 23rd instant, to Joseph Bedford, Clerk.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Manchester—Medical Officer to attend patients at their homes: £60 per annum, board, and residence. Applications, 2nd October, to Joseph Barber, Secretary.

SALFORD—Public Analyst: 21s. per analysis.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Out-door Dispenser: £75 per annum to commence. Applications to Dr. J. C. Hall, Honorary Secretary.

SOUTHPORT CONVALESCENT HOSPITAL—Resident Medical Officer and Superintendent: £80 per annum rising to £100, board, lodging, etc. Applications, 21st instant, to the Chairman.

SUNDERLAND and BISHOPWEARMOUTH INFIRMARY and DISPENSARY—Junior House-Surgeon: £60 for first year, yearly increase of £10, board and residence. Applications, 24th instant, to J. Kitto, Secretary.

THREE COUNTIES' LUNATIC ASYLUM, Arlesey—Resident Medical Superintendent: £600 per annum, furnished house, etc. Applications, 21st inst., to F. G. Butler, Clerk to Committee of Visitors, St. Neots, Hunts.

TWICKENHAM URBAN SANITARY DISTRICT—Medical Officer of Health: £50 per annum, for three years. Applications, 23rd inst., to W. Ruston, Clerk.

WALSALL UNION, Staffordshire—Medical Officers for the Workhouse and the Borough District: £80 and £45 per annum.

WESTMINSTER HOSPITAL—Physician.

WESTMINSTER HOSPITAL MEDICAL SCHOOL—Lecturer on the Principles and Practice of Medicine.

WEST NORFOLK and LYNN HOSPITAL—Surgeon.

YORKSHIRE LUNATIC ASYLUM—Resident Medical Superintendent: £300 per annum, house-rent and taxes free; coals, gas, vegetables, milk, and washing provided; £150 will be expended on substantial furniture. Applications, 19th instant, to the Committee, under cover to R. D. Horne, Clerk.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*FOTHERGILL, J. Milner, M.D., appointed Junior Physician to the West London Hospital, *vice* D. Ferrier, M.D., resigned, on appointment as Assistant Physician to King's College Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

ANDERSON.—On July 25th, at Yedo, Japan, the wife of Wm. Anderson, F.R.C.S., of a son.

KING.—On September 14th, at 48, Harley Street, the wife of Robert King, M.B., of a son.

MARRIAGES.

MESSER—MAY.—On Tuesday, the 15th instant, at the Church of St. James the Great, Devonport, by the Rev. R. Dunning, M.A., assisted by the Rev. S. W. Payne, LL.D., R.N., John Cockburn Messer, M.D., Staff-Surgeon, R.N., H.M.S. *Implacable*, to Elizabeth, eldest daughter of Joseph May, F.R.C.S., J.P., of Nelson Villas, Devonport.

PARSONS—FORSTER.—On the 8th instant, at St. Cuthbert, Darlington, by the Rev. Lyndhurst B. Towne, Vicar of Coatham (brother-in-law of the bride), assisted by the Rev. T. E. Hodgson, Vicar of the parish, Thos. Ed. Parsons, M.R.C.S.Eng., of Sunnyside, Wimbledon, to Emmaline, youngest daughter of the late Joseph Forster, of Harewood Hill, Darlington.

SMITH—DOWSON.—On September 10th, at St. Paul's Church, Clifton, Bristol, by the Rev. Canon Mather, *R. Shingleton Smith, M.D., of Rokeby House, Clifton, to Elise, only daughter of the late H. Cox Dowson, Esq., of Bayonne.

TAYLOR—WHITAKER.—On Thursday, September 3rd, at St. John's Church, Mansfield, Notts, by the Rev. Frank Stanley Taylor, brother of the bridegroom, assisted by the Rev. A. F. Ebsworth and the Rev. W. Bartlett, *Herbert Owen Taylor, M.B., son of Henry Taylor, Esq., Surgeon, Nottingham, to Mary Anne Allcock, eldest daughter of the late Joseph Whitaker, Esq., formerly of Ramsdale House, Notts. No cards.

DEATHS.

DOWLING, James H., M.D., at Newcastle West, County Limerick, aged 60, on August 19th.

GIBBES.—On June 27th, at Napier, New Zealand, Florence Ethel Murray, daughter of Dr. J. Murray Gibbes, M.B., M.R.C.S., aged 24 days.

BEQUEST.—The late Mr. David Kidd of Work Lane bequeathed £500, free of duty, to the Royal Infirmary of Edinburgh.

THE executors of the late Miss Hannah Brackenbury have contributed £200 out of the sums at their disposal, in aid of the funds of the Royal National Hospital for Consumption at Ventnor.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
FRIDAY.........	Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

E. R. T.—The subject in question has been fully elucidated by Dr. Jago of Truro, in his work on *Entoptics, with its Uses in Physiology and Medicine.*

Mr. R. Eddowes.—We are not aware of any record of a dislocation of the malar bone pure and simple; if displaced, it is usually so in conjunction with fracture of an adjoining bone.

C. N.—A Licentiate of the Society of Apothecaries of London is legally entitled to receive the coroner's fee of £2:2 for making a *post mortem* examination and giving evidence before the jury.

Liability for Midwifery Engagements.—"Institute" asks whether a medical practitioner, duly qualified, can recover the fee for which he has engaged to attend a woman in her confinement, if after engaging him she does not send for him, and yet gives him no notice that his services will not be required. Perhaps some of our readers will be able to refer us to cases in which a legal decision has been given on this question.

Diploma of L.M.—Will any reader inform me how a M.D. and M.Ch. of the Queen's University in Ireland can obtain with most speed and least expense the diploma of L.M., or a certificate of proficiency in Midwifery, such as would satisfy the Local Government Board of Ireland?—B.

Registered Medical Practitioners and Juries.

Sir,—I am a M.R.C.S.E. and L.S.A., registered, but not in general practice. The parish authorities insist on placing my name on the Jury List; and last year the magistrates would not strike my name off. Will you kindly say what I am to do; and should I be compelled to serve on the jury if they still insist on keeping my name on the list?

I am, etc.,
P. C. S.

⁂ A qualified surgeon can claim exemption from serving on juries.

Medical Titles.—H. asks for information on the following subjects.

1. Granting that an L.R.C.P. gets the title of Dr. by courtesy, is an M.R.C.S. entitled to the same?
2. An L.R.C.P. puts Dr. on his door-plate, can an M.R.C.S. do so?
3. Does an M.R.C.S. ever do so?

⁂ 1 and 2. Not with propriety. 3. Not within our knowledge.

Lead-Poisoning.

Sir,—A Pharmaceutical Chemist has informed me he had seen a person whose medical adviser ascribed his symptoms to the use of one of the lead and sulphur hair-washes prominently advertised. As the question is often put to me: "Are they injurious?" I should feel obliged if any of your correspondents have seen symptoms to be ascribed to the above.

I am, etc.,
Medicus.
Gower Street, September 7th, 1874.

The Period of Infection in Small-Pox.

Sir,—Will you very kindly oblige by stating how soon after an attack of variola a patient may be allowed to travel? I have had a case here, and my patient has been out of doors for the past fifteen days, and wants to return home. I am ignorant of the English law; and, wishing to be perfectly safe, have hesitated before allowing him to travel.

I am, etc.,
Cinchona.
September 1874.

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Printing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

An Appeal.

In answer to Dr. D. de Berdt Hovell's appeal on behalf of the widow and daughters of the late Dr. T. C. Lewis, the following sums have been received by the Editor of this Journal.

	£	s.	d.
Dr. Heath, Colchester	1	0	0
Mr. C. Druce, Oxford	0	5	0
Mr. Wilson	0	2	6
R. McK	0	5	0
Mrs. Gurney Barclay, per R. McK	1	0	0
G. H. F.	0	12	0
J. D. C.	0	2	6
Mr. W. Y. Martin, Walkden	0	10	6
	3	17	6

The Test for Nitrates, etc., in Water.

Sir,—My attention has been called to a paragraph at page 317 of last week's British Medical Journal, having reference to some experiments made by Dr. Fullarton at the late Norwich meeting for readily detecting nitrates and nitrites in drinking-water. Not seeing my name associated with that test, which, in justice to the inventor, ought to have been given, particularly as Dr. Fullarton only acquired the knowledge of the process from me, whilst he was on a visit to Cheltenham a few weeks ago, I therefore take the opportunity of informing you that, so far from its being new, I published it many years ago, and have had it in constant use ever since. It will be found fully described in the *Chemical News* of June 6th, 1863, and is known as Horsley's pyrogallic acid test for nitrates and nitrites.

I am, etc.,
John Horsley, F.C.S.,
Analyst to the County of Gloster.
Cheltenham, Sept. 12th, 1874.

"Maternal Impressions."

A man aged 22, otherwise well formed, has both upper extremities congenitally and equally undeveloped. The clavicles are of nearly natural size, but the scapula and other bones are not larger than those of a boy of 10: all the muscles are very small, so that the arms and hands appear to consist of almost nothing but bones and skin; the joints permit very limited movements, and any attempt to straighten the arms is arrested by the tightness of the skin in front; the hands cannot be rotated; the arms hang forwards and inwards; the elbows are turned outwards, and the hands are flexed and turned inwards. From the appearance of the arms, one might suppose they are practically useless; but the man is able to feed himself, to lift chairs, and to carry baskets. His mother states he is the result of her first pregnancy, and that at about three and a half months she suddenly saw a man in the convulsions of epilepsy, with his hands turned like her son's, and was very much terrified. She states her labour lasted ten days (with cephalic presentation), and that she was insane for three or four days after it. She has never noticed anything mentally deficient in her son. The subsequent children are naturally developed.

A girl of 19 has a raised dark-brown patch of skin, as large as a sheep's kidney, and of irregular shape, with a quantity of dark-brown hair, about half an inch in length, upon it, situated over the upper part of the sacrum: her other hair is of a light-brown colour, and her complexion is fair. Her mother attributes the "mole" to being frightened during pregnancy (at about four and a half months) by a rat, disturbed in its nest of young, springing upon her shoulder.

Malvern, September 10th, 1874.
Stanley Haynes, M.D.

The Treatment of Bronchitis and Asthma.

Sir,—Having had so many letters as to the doses and formula I use in the treatment of bronchitis and asthma, that it is quite impossible for me to reply to each. I shall be very much obliged if you will kindly allow me through your medium to mention that I give the usual doses of the various drugs mentioned.

I am, etc.,
W. H. Spergin, M.R.C.S.Eng., L.S.A.
54, Senhouse Street, Maryport, September 7th, 1874.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Sept. 14th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. W. H. Flower, London; Dr. J. B. Bradbury, Cambridge; Dr. George Johnson, London; Mr. J. H. Wathen, Fishguard; Dr. Acland, Oxford; The Director-General of the Army Medical Department; Dr. Yeo, Dublin; Dr. Stanley Haynes, Malvern; Dr. Bryan, Northampton; Justitia; Mr. H. O. Taylor, Ventnor; Mr. F. W. Parsons, Wimbledon; Mr. Cutler, London; G. H. F.; An Associate; J. D. C., Woolwich; Mr. F. Boldero, Penkridge; Our Edinburgh Correspondent: Mr. Mann, Manchester: Mr. E. J. Cooke, Sheffield; Dr. Eade, Norwich; M.D.; Mr. C. W. Kriedel, Wiesbaden; The Director-General of the Naval Medical Department; Dr. G. M. Humphry, Cambridge; Mr. Thurston, Ashford; Dr. Marcet, Nice; Dr. R. M'Kelvie, Cromer; Mr. N. H. Humphreys, London; Mr. H. Greenway, Plymouth; Dr. T. M. Bennett, York; Mr. Horsley, Cheltenham; Mr. J. P. Lockwood, Mirfield; Mr. G. Guthrie, Lichfield, Mr. W. F. Hunt, Belford; Dr. Bradbury, Cambridge; Dr. Grimshaw, Dublin; Dr. W. H. Griffiths, Dublin; X. Y. Z.; Mr. J. Fox, Cockermouth; Dr. Edis, London: The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Heath, Colchester; Mr. Eastes, London; Dr. Charles, Belfast; Dr. A. G. Burness, London; Dr. C. R. Drysdale, London; Mr. J. A. Thompson, London; Mr. T. L. Read, London; etc.

NOTES OF EXPERIENCES IN EGYPT.

By W. H. FLOWER, F.R.S.,
Hunterian Professor of Comparative Anatomy in the Royal College of Surgeons of England, etc.

III.—CAIRO.

CAIRO, the capital of Egypt, is one hundred and thirty miles from Alexandria. It is reached by railway in four-and-a-half hours by express, and in six hours by ordinary trains. Refreshments can be obtained, if necessary, at Kafr ez Zyat station, about half way. The line runs the whole distance through the delta, a low-lying, level, green, fertile, populous land, intersected by numerous canals and branches of the great river. To strangers, it is full of interest the whole way, the buildings, the people, the animals, the vegetation, the agriculture, all different from anything seen before; and then, shortly before reaching Cairo, a distant glimpse is obtained of the stately group of pyramids of Ghizeh, which, the more they are studied and compared with other and later works of man, the more are found to merit the ancient appellation of "wonders of the world".

Not many years ago, Masr el Kahirah (Masr the Victorious) of the Arabs, Le Caire of the French, Grand Cairo of early English travellers was in every aspect one of the most picturesque and oriental of cities. Owing to its vast size and the natural conservatism of the worshippers of Islam, great portions of the city still retain their ancient character, and it is still possible to lose oneself in mazes of narrow crooked streets where no vestige can be seen of any alteration in manner, custom, or appearance of the inhabitants or their dwellings since the golden days of Haroun Al'Raschid. But other parts of the city, especially those which are first seen by the traveller arriving at the station and driving to one of the principal hotels, savour more of modern France or Italy than of the Arabian Nights. Here we meet with wide well watered boulevards, shaded with straight rows of acacia trees, and lighted with gas, bordered with detached villas in neatly kept gardens; handsome colonnaded streets with shops that might vie with those of the Palais Royal, an Italian opera-house, and a French theatre, a public garden with a military band playing every afternoon all the popular European airs, gay open carriages driving about everywhere, electric telegraph wires crossing the streets in all directions, and a new post-office such as few European capitals can boast. And yet, among and below all these superficial signs of modern civilisation, the masses of the people remain much as of old, and a moment's glance at the crowd which throng every street of this active, bustling, lively place, the veiled women, the white turbans and red tarbooshes, the flowing blue galabiahs, the camels, and the donkeys convince one that in crossing the Mediterranean one has really entered into a new quarter of the world. But I must not wander into subjects already fully and graphically described by other writers, but keep to my humble intention of giving some plain useful hints that may add to the comfort of the invalid traveller.

An Englishman arriving at Cairo will be pretty sure to go to one or the other of three hotels, Shepheard's, the New Hotel, or the Hôtel du Nil; and he should make up his mind which it is to be beforehand, and at once put himself and baggage in charge of the commissionaire, who will be in waiting at the station. At no railway station in the world is the scramble of volunteer porters to get hold of the newly arrived passengers and their baggage more vigorous and vociferous than at Cairo. During the full season, it is best to write or telegraph from Alexandria to secure the rooms required.

The old-established Shepheard's (now Zech's) is still the favourite with our countrymen. It is a large, plain, two-storied, quadrilateral building, with a garden in the interior, and also on one side. It faces what was formerly part of the Esbekeeyah or public square; but a colonnaded row of stone houses is being built immediately opposite the hotel door, which rather deteriorates from the advantages of the situation, but it is still open and airy on the sides and behind. The back rooms, which look into a large palm garden, though smaller and not so well furnished, are pleasanter for those that like quiet than the rooms in front.

The interior arrangements do not differ much from those of European hotels, except that there are no bells, which is sometimes a source of inconvenience, though an attendant is usually posted in each corridor, who can be summoned by the oriental fashion of clapping the hands. There is nothing much to be complained of in the way of cleanliness, it being about on a par in this respect with the better class hotels of Southern Europe. The scale of living is very abundant, and though, as in other hot countries, the roast beef and mutton cannot be fairly compared with the best articles of the kind in England, there is no chance, even for the most fastidious, of being starved. I think the danger lies rather in the other direction.

The charge is sixteen shillings per day. Occasionally a slight reduction is made for those who are contemplating a long stay. Lights are included, and servants nominally, though, of course, the latter expect a small gratuity on leaving. Washing is done in the hotel fairly well, but at very high prices. For a sitting-room, about a guinea a day extra is charged. Of course, with a large party this is convenient, though not absolutely necessary; for it is a common practice, as on the continent of Europe, to sit and receive visitors in the bedroom; and there are a reading-room on the ground-floor, the garden, and the wide covered porch in front of the entrance-hall, a favourite resort with those whom idleness or ill-health restrains from more active employment. It is certainly difficult for a new-comer to resist the temptation to while away some time here, for the sake of the moving panorama of oriental life presented by the street below.

The New Hotel is a far handsomer building than Shepheard's, and better placed, being exactly opposite the centre of the recently improved Esbekeeyah garden. The interior arrangements are more modern than those of Shepheard's, the rooms being well furnished and provided with electric bells. The prices, living, etc., are exactly the same. The cooking last year was considered by connoisseurs to be better; but that, of course, may vary. The manager and all the attendants were exceedingly civil and obliging. We spent four weeks at Shepheard's, and three at the New Hotel, and found little to choose between them. The principal difference was in the company: Americans, French, and Italians mostly frequent the New, while the English keep very much to Shepheard's.

The Hôtel du Nil seems to be a great favourite with Germans, and also with many English gentlemen travelling alone. It is smaller than the others, and somewhat less expensive, but is well spoken of for comfort. The great objection to it, especially for ladies, is the situation. It is in the most crowded part of the town, and can only be approached by a very narrow alley, leading from the Mooskee, the Regent Street of Cairo. The hotel is pleasant and quiet enough, having a pretty garden in the centre.

There are several inferior hotels, but of them I can say nothing, not having met with anyone who has stayed at any of them. It may be possible before long for visitors who intend to remain long at Cairo to obtain lodgings, and so live at a cheaper rate than at the hotels; but, without a knowledge of the language and customs of the people, there would be great trouble and probably discomfort in doing so, at least for invalids, and it must always be remembered that I am not now writing for the strong, hardy, and adventurous.

The drinking-water at the hotels at Cairo, being obtained from the Nile and filtered, is generally good and wholesome. This applies to Egypt generally; the large volume of water flowing down the river, being sufficient to counteract the effect of any small amount of impurity that may find its way into it. It is always kept in the native jars of porous clay or *goulas*, by the evaporation from the surface of which the temperature of the water is kept down to a refreshing point even in hot weather.

Cairo is now well supplied with European physicians. Dr. Grant (Scotch), Dr. Bull (Danish), Dr. Warren (American), and Dr. Sachs (German) are those most in repute among the visitors; while Mr. Broadway and Mr. Waller are dentists in large practice. The shops are furnished with all European articles; the postal service is frequent and regular, and telegraphic news from London and elsewhere is daily posted in Robertson's reading-room. We learnt the result of the last Oxford and Cambridge boat-race on the afternoon of the day it took place.

The objects of interest to the visitor in Cairo and its neighbourhood are so numerous, that it would take long indeed to exhaust them. The only danger is that to the delicate in body, or to those who have left their homes and occupations for the sake of mental rest, they may become too exciting, and, unless there be ample time, that too much may be attempted in the way of sight-seeing. It is a wonderful sensation to find oneself for the first time face to face, as it were, with two distinct phases of the world's history and civilisation, each absolutely unlike the other, and unlike anything previously experienced. The pyramids of Ghizeh and the obelisk of Heliopolis, on the one hand, and the mosque of Sultan Hassan and the tomb of El Barkook, on the other, and all the associations that cling round each, the history, social life, the arts of the people that belonged to these so widely separated eras are almost overwhelming, though irresistible objects of interest; and, if these be not sufficient, striking memorials of a third and far more remote period of the world's history are abundant in the vicinity of Cairo, and their investigation will to some prove equally attractive. The bare and sun-smitten Mokattam Hills raising their picturesque and craggy forms against the eastern sky, and the arid desert plain to the west, beyond the pyramids, teem with the remains of animals which flourished when the rocks and sand which now enclose them were mud at the bottom of a deep sea. To one fond of sketching, most charming subjects innumerable, both landscape and figure, offer themselves for the pencil. In fact, the resources of Cairo to the intelligent traveller are inexhaustible. Physical strength will be the only limit to the perpetual feast of eye and mind.

The means of locomotion are now greatly improved; comfortable two-horse open carriages are always standing at the hotel doors, and, since the new iron bridge across the Nile has been opened, the Pyramids and nearly all the places of interest in the neighbourhood can be reached with wheels. But donkey-riding is still pre-eminently the favourite and most convenient method of getting about, both with the natives and visitors. There is no reason why one should not take exercise by walking in Cairo as well as elsewhere; in winter, it is not often too hot; but, when mounted on a donkey, there is such a feeling of independence, and the attendant boy is so useful as a faithful servant, guide, and interpreter, holding himself responsible for bringing one safely through all the difficulties that may be met with in explorations often as well as or better than a regular dragoman; and the expense is so small, that one almost infallibly soon falls into the regular system of locomotion. If one be likely to go much about in this way, it is best, having once found a donkey whose paces suit (for, of course, they vary much), and an intelligent, pleasant boy (so-called, although varying from 10 to 30 years of age), to engage them for sole use by the week. All three get along much better when they are accustomed to each other; and, when the visitor is known to all the donkey-boys who crowd the door of the hotel to "belong to" one particular member of their fraternity, he will be spared the desperate rush that takes place at the unattached stranger the moment he ventures to set foot in the street.

The donkeys are small, but strong, fast, and willing. As they are rather apt to stumble in rough places, it is necessary to be always on the look out for a fall, which, if one be prepared for it, and have not got the feet too far in the stirrups, seldom leads to any harm. But troublesome accidents do sometimes occur. A friend of mine, an English clergyman, received last winter a severe dislocation of the right shoulder from his donkey falling with him; but he was attending at the time more to the architectural beauties of the street through which he was passing than to the paces of his animal.

Ladies ride as well as men. It enables them to explore many parts of the town and neighbourhood too far for walking, and not easily accessible to carriages; and as, further up the country, donkey-riding is the only means of visiting nearly all the most interesting ruins, it is well to practise the art at Cairo. Side-saddles, a few years ago, were almost unknown in Egypt, as the Turkish women never use them, and so it was advisable for ladies to take them out as part of their baggage; but now there is no difficulty in buying or hiring them at Cairo.

The chief characteristic of the climate of Egypt is its dryness. In the richly wooded districts of the equatorial regions of Africa, where the numerous affluents of the Nile take their rise, almost continuous rain prevails; but, in the deserts of Nubia and Upper Egypt, through which the great river flows in its course to the sea, sometimes years pass without a single shower. The absence of rain and absence of vegetation are obviously related to one another. The Mediterranean coast, as before mentioned, and the delta, are less dry than the upper parts of the country, and Cairo occupies an intermediate position.

It is the opinion of some observant residents that the climate of Lower Egypt is becoming modified, and the rainfall increased, by extended cultivation and by the alterations produced in the physical features of the country due to the formation of the Suez Canal.* However this may be, all are agreed that last winter was quite exceptional in the amount of rain that fell; but, as this was much the same all round the Mediterranean basin, it must have been due to something more than local causes. How much it amounted to will be seen from the following extracts from my journal, which record all the times at which rain fell during five months we were in the country, *i.e.*, from November 21st to April 20th. November 21st: in Alexandria harbour; heavy showers of rain. November 26th: very heavy rain at Alexandria in the night and early morning, and also a slight shower on arrival at Cairo the same afternoon. December 19th: some rain early in the morning. December 27th: much and heavy rain and hail. December 28th: some showers. January 11th and 12th: at Bedreshayn, about fifteen miles south of Cairo; some slight showers of rain. January 28th: on the Nile above Rhoda; a slight shower in the middle of the day. February 3rd: at Souhag, Upper Egypt; a heavy rain nearly all night, and a close cloudy day, with occasional showers and no sun. February 4th: rain again in the night and showers in the day. March 4th: at Thebes; a very slight shower in the middle of the day.

Thus, in this exceptionally wet season, there were only eleven days out of one hundred and fifty on which rain fell, and on some of these it was scarcely more than a few drops.

As a general rule, the days are much like one another: fine, clear, bright, and sunny. The subject of the weather, so important to us in our island home, soon loses all interest, owing to absence of change.

Another characteristic of the Egyptian winter climate is, that, though the days are warm, even hot in the sun (usually about 70 deg. or 75 deg. in the shade), the nights are fresh and cold, and often accompanied by heavy dew, the thermometer frequently falling to 40 deg. or below, though rarely quite to the freezing point. To many constitutions, this is advantageous. A sultry night following a hot day often induces languor and depression; but the freshness of the Egyptian night and early morning is invigorating and bracing, and enables one better to bear the fatigues and heat of the day. Persons with delicate lungs find the rather sudden change from day to night temperature somewhat trying. Any bad effects that may arise from them can always be guarded against by taking proper precautions, especially not remaining out of doors after sunset, or, if tempted to linger to watch the beautiful after-glow which often appears in the sky, always putting on extra clothing. Such persons should never set out for a drive in the afternoon without taking some wraps to put on directly the sun goes down. By carefully regulating the clothing, the injurious effects of the great alterations of temperature can always be counteracted. Fire-places are provided in the rooms of the New Hotel, though not in any of the others; it must be very seldom, however, that the necessity for a fire can be felt.

In considering Egypt from a hygienic point of view, it is extremely important to understand that, physically, the whole country is divided into two distinct regions.

1. The low-lying alluvial plain, beneath the level of the annual overflow of the Nile. Throughout the greater part of the country, this is a narrow strip bordering the river, scarcely averaging five miles in breadth; but at the north it widens to form the delta, a triangular patch, whose apex is at Cairo, and base, about one hundred miles in width, on the Mediterranean shore. This is the cultivated and highly fertile part of the land. Its surface consists of mud on the receding of the water in the autumn, but soon dries under the influence of the sun into a rich, dark-coloured, sandy loam. It is the product of the disintegration of the primitive rocks of the mountainous districts of Abyssinia and other regions of Central Africa, where the Nile tributaries take their source.

2. All the rest of the country which is above the level of the autumnal overflow. This is the *desert*. Its line of demarcation from the cultivated land is most sharply defined. It is far from being the monotonous, level, sandy plain that we had been accustomed to associate with the name, but consists, in Lower and Middle Egypt, of limestone rocks of marine origin, rising in terraces or escarpments, one above another, from the river valley, the stratification being generally very horizontal, and ending in a high tableland, carved and scored out in various directions, evidently by long-continued action of water, into wide open valleys or narrow gorges; in the bottom of some of these, a little scanty vegetation, the curious *Anastatica*, or "Rose of Jericho", and the camelthorn, may be found growing; but generally all is absolutely barren. Yet by artificial irrigation, as in some parts in the neighbourhood of Cairo and at Ismaielah, the desert can be made green and fertile.

It is a strange sensation to find oneself for the first time actually in the desert, as on the excursion, for instance, to the so-called "petrified forest" about six miles to the east of Cairo. Nothing but absolutely barren rock and stone is to be seen around in all directions, not a blade of grass or a sign of a living thing. In silence and desolation, the only previous experience to which I could compare it was the middle of an ice-field in Switzerland, when shut in by surrounding rocks from all sights or sounds of the world below. And yet there is something very invigorating, almost exhilarating, in the freedom, but especially in the air, of the desert. A refreshing breeze, in winter at least, generally tempers even the heat and glare of the midday sun, and in the morning and evening it is decidedly cold. Nowhere on land is the air so pure, as nowhere else is there such complete absence of all decomposing organic matter in the soil; it has well been compared with that of the open sea.

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* See the remarks of Dr. Grant, in Murray's *Handbook*, 4th edition (1873), p. 2.

It should be the object of those who go to Egypt for the benefit of their health to breathe as much of the air of the desert as possible, and it is unfortunate that this cannot at present be obtained in the places of residence which afford the greatest facilities and comforts for invalids. Cairo is situated on its edge, but the hotels, and all the modern town in fact, are built on low ground, which, until reclaimed artificially, was subject to the overflow, and have the whole of the ancient city, with its crowded population and impure streets, between them and the desert. Moreover, the prevailing winds, being from the north, blow directly across the delta. This and the great amount of dust, not of the cleanest kind, which fills the air of a great city full of people and animals, form the principal drawbacks to Cairo as a residence for invalids. What is greatly wanted is a place where good accommodation and comfort, combined with moderate expense, could be obtained a few miles out of Cairo, somewhere on the Mokattan Hills.

The nearest approach to this is the establishment which has just been opened at Helwân, or "Helouan-les-Bains" (as it is spelt in French), about fifteen miles south of Cairo, and three from the east bank of the river. The origin of this place was a spring of warm sulphurous water, similar in composition to that of Aix-les-Bains, in Savoy. Baths were erected here a few years ago for the use of the Khedive and his family. These have lately been considerably enlarged; and Dr. Reil, a German physician, who has lived some years in Cairo, and who speaks English well, has been appointed resident director of the establishment. Two hotels or boarding-houses, though not quite completed, had just been opened when I visited the place in January last. By next season, it will all be in good working order, and several hundred visitors will be accommodated at more reasonable prices than in Cairo.

The situation was determined by the mineral spring, which wells up in the middle of a flat sandy plain, about midway between the river and the range of rocky hills that flank the Nile valley on the east. Although not so agreeable as if higher on the hill-side, it is well within the border of the desert and fairly above the river-level.

Apart from the peculiar medicinal virtues of the waters (which are especially recommended in case of chronic rheumatic, cutaneous, and hepatic diseases), a residence at Helwân would probably be better, in a sanitary point of view, than in the hotels of Cairo; the air is purer and the life quieter; but, for those who have not plenty of resources within themselves, it will scarcely offer the same attractions. At present, it is rather difficult of access, but the road will probably be improved before next winter.

The only other places where European travellers could pass the winter in Egypt (apart from the Nile boat, to be spoken of in the next article) are Suez and Ismailia. There are hotels at both, but of neither of them can I say anything from personal knowledge. Ismailia is a new place on the side of the Suez Canal, and has some pretty gardens on land reclaimed from the desert. It is reached by rail from Cairo in about nine hours. Its attractions are pure desert air and quiet, for it is quite away from all historical objects of interest. The principal outward events in life there must be the passage of vessels through the canal.

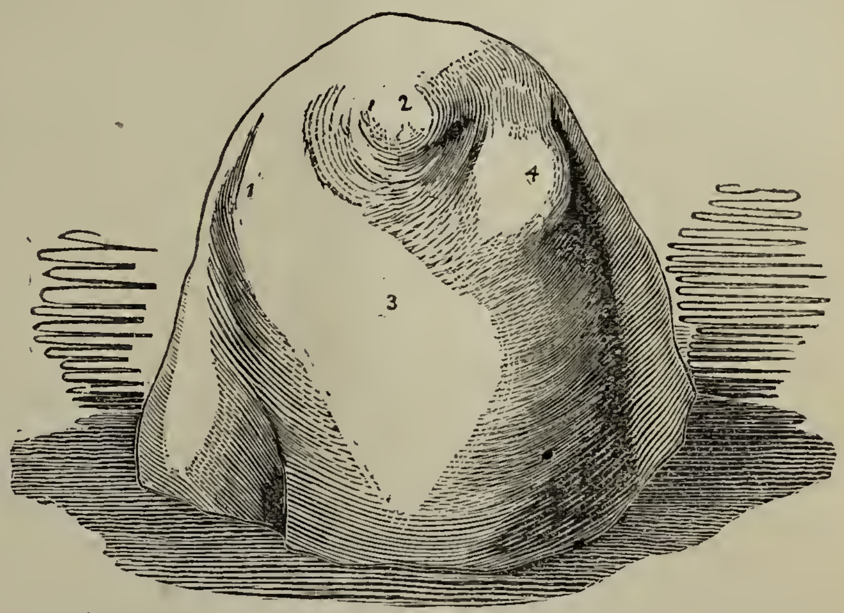
[*To be continued.*]

A CASE OF PECULIAR INJURY OF THE SHOULDER-JOINT.

By J. J. CHARLES, M.A., M.D., M.Ch., etc.,
Demonstrator of Anatomy, Queen's College, Belfast.

IN March last, there came under my notice a rare form of fracture of the humerus, which I believe of sufficient interest for publication. A. B., a house-porter, 30 years of age, strong and healthy, while crossing the street with a hand-cart, was knocked down by a tram-car in January 1873. The patient can give no satisfactory account of the precise way in which he received the injury, but it appears that the pole of the tram-car struck him about the middle of the left shoulder. It is unnecessary to enter into particulars regarding the different plans of treatment to which the unfortunate man was subjected at different times—suffice it to say, that pulleys and other appliances were frequently employed in the vain attempt to reduce what was believed to be a dislocation of the humerus on the *dorsum scapulæ*. It was fourteen months after the accident that my attention was directed to the case.

On examination, I found that the shoulder had lost its natural roundness and fulness, from the deltoid muscle having become flattened; that the acromion process was very prominent; and that the breadth of the articulation was greatly increased. Beneath the outer part of the spine of the scapula was an osseous tumour of the size of a small orange; its superficial surface was more or less rounded, except in front, where it was bounded by a nearly straight border that ran obliquely downwards and forwards into a long, narrow, bony process. This process could be traced downwards and forwards towards the shaft of the humerus, to which it was joined at an acute angle two or three inches below the glenoid fossa; but it was almost impossible to determine with any degree of exactitude either the mode or the point of attachment, owing to the thickness of the soft parts covering the joint. Any doubt, however, as to the existence of this union was at once set aside on rotating the arm, as the tumour could then be both seen and felt moving along with the humerus, though it could scarcely be moved at all by the fingers applied directly. During these movements, the under surface of the tumour could be felt to be more or less flattened. The coracoid process was unusually prominent and appeared enlarged, and beneath it was a slight projection formed by the inner part of the upper end of the humerus. It was difficult to examine the glenoid cavity, as the arm could only be abducted a short distance, and that not without some pain; but it was clear that the greater portion of it was occupied by the upper extremity of the shaft of the humerus. Between this projection under the coracoid and the tumour on the scapula was a deep sulcus, into which the finger could be readily sunk. When the elbow was held close to the side, and the fingers of both hands placed in the axilla, the upper end of the humerus could be pressed outwards as far as the lower border of the acromion process, and then the shoulder was made to assume more of its natural contour. The elbow generally lay separated from the side, but could easily be brought into contact with it. The axis of the humerus was directed upwards and inwards towards the coracoid process, and the arm was nearly half an inch shorter than its fellow of the opposite side. The "under movements" of the limb had not been interfered with; but the patient was unable to place his hand on the opposite shoulder, or to raise his arm more than six or eight inches, unless he supported it with his right hand, though he could now move it more freely than he did some time before. The arm, however, could be forcibly elevated by another person, but abduction and extension (backwards) were decidedly the most limited of all the movements. He complained of pain along the inside of his arm, and occasionally of numbness and coldness of his hand.



1. Prominence below Coracoid Process. 3. Flattened Outer Surface of Shoulder.
2. Prominent Acromion Process. 4. Osseous Tumour on Dorsum Scapulæ.

Diagnosis.—The tumour on the scapula was manifestly too small to consist of the *whole* of the head of the humerus. I, therefore, regarded it as constituted by the portion of the upper end of the bone outside the bicipital groove; and, as it was attached to the shaft of the humerus, its direction was necessarily oblique—hence its anterior border, which was formed by the outer bicipital ridge, was directed downwards and forwards, as I have described above. The manner in which the accident occurred was most probably this: the pole of the tram-car struck the upper end of the humerus near the bicipital groove, and fractured it longitudinally into two pieces, which were driven with violence—one backwards on the scapula and the other a little inwards under the coracoid process; and in these positions they were, no doubt, maintained chiefly by the action of the external and internal rotator muscles respectively. The small amount of shortening observable at present may be due to the upper end of the bone having been displaced forwards and inwards after the outer and greater portion of the head had been broken off.

Whether the inner fragment, like the outer one, was separated from the shaft, I could not be certain; but, if it were, the displacement could not have been great. On this supposition, the upper end of the shaft of the bone would occupy the glenoid fossa, and the inner tuberosity with a portion of the shaft form the projection beneath the coracoid; while the shortening of the arm would be accounted for by the shaft overlapping the fragments. On this point, however, there must still exist some doubt, unless it be cleared up in future by a *post mortem* examination.

Dr. Robert W. Smith describes a few cases of "fractures of the greater tuberosity of the humerus" (*Fractures and Dislocations*, p. 176), which in many respects resemble the case under consideration; but, in the present instance, the amount of injury done was greater and the fracture more extensive.

Dr. Hamilton, in his account of "longitudinal fractures of the head and neck" of the humerus, alludes to the great difficulty sometimes experienced in arriving at a correct diagnosis. In relating the particulars of the only example of this variety of fracture which he ever recognised, he says: "The physician to whom" the patient "was sent thought the humerus was dislocated". Eight days afterwards, "Dr. Boardman and myself examined the limb carefully. . . . Although we placed him under the influence of chloroform, the diagnosis was not satisfactorily made out. We inclined, however, to the opinion that it was fracture of the greater tubercle. . . . Subsequently, the examinations were repeated many times, and the diagnosis was at length confirmed" (*Fractures and Dislocations*, p. 221). He does not, however, refer to any instance in which the fracture was so extensive or the displacement so considerable as in the one of which I have given a description above.

Treatment.—I think that in this case the fragments might at first have been brought almost together, and maintained in apposition by means of Professor Gordon's clavicular apparatus* and the judicious application of a properly adjusted pad over the outer fragment. But it must be admitted that in such fractures the chances of complete bony union and of freedom of movement at the joint are slight indeed. Dr. Hamilton states that union "without any degree of displacement" is a "result which probably ought never to be expected" (*op. cit.*, p. 232); and Dr. R. W. Smith thinks that "when the displacement is considerable, the fragments generally unite by ligament rather than by bone" (Hamilton *On Fractures*, p. 221). At present, nothing can be done to remedy the deformity under which the patient labours; but the amount of mobility of the joint will undoubtedly increase through time—indeed, in this respect, there has been considerable improvement already, and with this small comfort he must rest contented.

I may add that Professors Redfern and Gordon also examined this case carefully, and they arrived at almost the same conclusions as I did regarding the nature of the accident. Professor Gordon's opinion as to the relation of the inner fragment to the shaft is that which I have stated above as the second hypothesis.

The patient was exhibited before the Ulster Medical Society in March last.

CASES OF CONVULSION FROM ORGANIC BRAIN-DISEASE.†

By W. R. GOWERS, M.D.Lond.,
Assistant-Physician to University College Hospital and to the National Hospital for the Paralysed and Epileptic.

My object in this paper will be to lay before you the details of some convulsive seizures of local commencement and deliberate march in which there was found after death a naked-eye lesion of the brain, the position of which could be determined with accuracy. It has been shown by Dr. Hughlings Jackson‡ that the study of such convulsions affords one of the chief practical means of ascertaining the precise motor relations of many parts of the human brain, and of extending to it the conclusions reached by experiments on the brains of lower animals.

Case I. *Unilateral Convulsion beginning in both Frontal Muscles, in a Case of Renal Disease, with an old Hæmorrhage into the opposite Cerebral Hemisphere.*—A little girl, aged 8 years, was admitted into University College Hospital, under the care of Dr. Wilson Fox, on February 7th, 1874, with slight œdema of the legs and albuminuria. The dropsy had existed for two months. One day, about the time of the commencement of the dropsy, she had been seized with severe pain in the head and vomiting; and, next morning, a series of convulsive attacks commenced, which lasted for thirty hours, the headache and vomiting continuing for some days. A few weeks afterwards, a second similar attack occurred. On admission, the child presented no evidence of cerebral mischief; she was cheerful, quick, and there was no discoverable paralysis. The ophthalmoscope showed well marked albuminuric retinitis. One day, about a fortnight after her admission, she suddenly, without obvious cause, vomited, and, a few hours afterwards, was seized with a convulsive attack, involving the left side only. A similar attack was repeated every ten or fifteen minutes for about twelve hours, when she died, the temperature rising before death to 107.2. I was able to watch carefully several of the attacks. In the first two which I saw, the earliest spasms appeared to be at the angle of the mouth, on the left side; but, in all that followed, this was preceded by movements in the frontal muscles; and I think it probable, therefore, that all the fits began thus, but that, in those first seen, the earliest movement was overlooked. The spasm in the frontal muscles, with which the fit commenced, was clonic, and occurred simultaneously and equally in the two frontal muscles. In a few seconds, clonic spasm set in in the orbicularis of the eyelids, on each side, but greater on the left than on the right. The left angle of the mouth was then twitched outwards, apparently by the action of the zygomatic muscles, the right side being quite motionless. Next the left arm began to jerk, apparently as a whole, and soon afterwards the left leg. The muscles passing from the limbs to the body were involved, and also the muscles of the abdomen—certainly of the left, and I thought also of the right side. No tonic spasm was observed. After lasting about a minute, the spasmodic contractions subsided, lasting longest in the zygomatic muscles and in the muscles of the left arm. When the movements were at their greatest intensity, there was a little contraction of both *levatores menti*; but, with the exceptions mentioned, there was no affection of muscles on the right side. I was informed that, in some of the earlier fits, there had been some jerking of the right limbs; there was none in those which I saw. During the fits, and also in the intervals between them, the eyes were directed to the right, the axes remaining parallel, and were not moved to the left. During the fit, the pupils were widely dilated.

In the intervals, there was no return to consciousness; then, in emotional movements, the *right* side of the face alone moved.

At the *post mortem* examination, there was found an old clot, apparently of at least several weeks' duration, which was situated above the right lateral ventricle, just inside the convolution of the corpus callosum, the white matter of which it involved. In size, the clot was about as large as a walnut, and its centre was about midway between the anterior and posterior extremities of the corpus callosum. The clot itself did not extend outwards beyond the middle of the roof of the ventricle, but adjacent softening reached as far as the junction of the roof and outer wall, so as to approach within one-sixth of an inch of the outer part of the corpus striatum. The softening had extended irregularly to the surface of the convolution of the corpus callosum, opposite the clot, so as to involve the grey matter at this spot. Some minute extravasations over the right parietal and occipital lobes, beneath the pia mater, constituted the only other lesion to be found in the brain. The heart was much hypertrophied. The kidneys presented extreme and old-standing disease.

Remarks.—A convulsion affecting one-half of the body, as far as our present knowledge extends, always owns as immediate cause an organic change in one-half of the brain. As the only considerable lesion, we are justified, then, in regarding the clot as the immediate cause of the fits in this case. There was, further, that condition predisposing to convulsion which accompanies grave organic renal disease. Of the systemic influence of the renal disease, the existence of albuminuric retinitis furnished a sufficient proof. The presence, however, of this additional predisposing cause does not interfere with the interest which attaches to the character of the convulsion and to the position of the lesion causing it. The rule is, as Dr. Hughlings Jackson has shown, that, in unilateral convulsions, or in general convulsions beginning unilaterally, the fit begins in the side which is first or only affected, and in some muscles on that side which are usually put into unilateral action—at the angle of the mouth, the hand, or the foot. In this case, however, the fit, which was essentially one-sided, deviated from the rule, in beginning simultaneously on the two sides, that is, in the two frontal muscles; and in this deviation it is, so far as I am aware, unique. It is interesting, therefore, to observe that it began in a muscle which is rarely, if ever, put into unilateral action. Few people indeed possess the power of moving the frontal muscle on one side only without that on the other. The orbicularis of the eyelids were next involved, but less equally than the frontal muscles, that of the left side being slightly affected. The orbicular muscles have a greater power of unilateral contraction than the frontal muscles, but the power is limited, is to a considerable extent acquired, and it is difficult for many persons, and especially for young children, to put one orbicularis into any contraction without causing some contraction in the other. The muscles drawing outwards the angle of the mouth were affected on one side only. Although those of the two sides are often moved together, they possess the power of perfectly separate action. The same is true of the arm and leg, in which the convulsion was strictly limited to one side. We thus see that the distribution of the convulsion in the muscles of the two sides, as far as observation went, corresponded closely to the degree of associated bilateral action of the muscles concerned, to the uniformity with which the muscles of the two sides habitually act together.

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* This apparatus will probably be described in a short time by Professor Gordon. It serves for the treatment of almost all the injuries of the shoulder-joint.

† Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

‡ In many places, and especially in his article on the "Localisation of Movement in the Brain", in the *Lancet* for January 13th, 1873.

The relation between this distribution of the convulsion and the distribution of the paralysis in an ordinary case of hemiplegia a little time after the onset, will probably have already struck you. In hemiplegia, there is, with severe affection of the arm and leg on one side, moderate affection of the straight muscles which go to the angle of the mouth, much less affection of the orbicularis of the eyelids, and scarcely any perceptible paralysis of the frontal muscle. In proportion to the bilateral association in action, the muscles of the affected side escape in the paralysis, and those of the unaffected side are involved in the convulsion.

It is commonly admitted that the hypothesis of Dr. Broadbent* explains best the escape of the bilaterally acting muscles in hemiplegia, and it furnishes an equally good explanation of their involvement in spasm.† The theory is, that the muscles acting bilaterally have such commissural connections of their nuclei, that the muscles of both sides are connected with each side of the brain in proportion to their bilateral use. The effect of this is, that, if a lesion cut off the higher centres on one side from the lower, those lower centres are in such connection with the lower, and therefore also with the higher, centres on the unaffected side of the brain, that the muscles on the side which would be paralysed are affected but little, or not at all. It is evident that the same commissural connection which ensures the escape of one side in paralysis permits the involvement of both in spasm. The discharge of a higher centre in one hemisphere will involve the lower centres, and therefore the muscles, on the two sides in more or less equality, the degree of that equality being proportioned to the completeness of the commissural connection of the centres, and therefore to the degree with which the muscles are associated in ordinary action. This was precisely the condition present in the case described.

It is true that in some unilateral fits the muscles which act bilaterally are affected on one side only. Of this the case I am about to relate affords an example. The difference probably depends on the position of the lesion, and many more careful observations on the relation between position of disease and character of fit will be needed before the difference can be explained with confidence.

CASE II. *Convulsive Seizure beginning unilaterally by a Co-ordinated Movement of the Left Hand, and due to Thrombosis in Veins on the Right Frontal Lobe.*—A man, aged 30, in University College Hospital for phthisis, of which he was in the last stage, after a day or two of mental dulness, was suddenly seized with a convulsive attack, which lasted about a minute and was repeated every ten or twelve minutes, until his death, about two hours afterwards. After the first fit, no manifestation of consciousness could be obtained. Two of the attacks, which I was able carefully to watch, and which were said to resemble the others, were of the following character. While lying still, with his head in the middle line and his eyes directed forwards, his left hand was slowly raised to the head, the forefinger being extended and the whole arm being stiff. Just after the movement commenced in the hand, the left angle of the mouth was drawn outwards, and the head and eyes turned to the left; the hand was then slowly lowered to the chest, the fingers being bent inwards. The mouth meanwhile was drawn more to the left. Presently, the tonic gave place to clonic spasm, which involved the head, side of the face, arm, and leg, all the muscles of that side of the face, and of that side only, being at first convulsed, the left half of the occipito-frontalis jerking and the right half remaining still. Presently, the right arm began to twitch, and then the right side of the face. The mouth became equal, the lips being closely pressed together. In a few seconds more, the spasm was slighter on the left and more severe on the right side; the mouth was drawn to the right, and the eyes and head slowly turned over to the right side, the eyes maintaining their parallelism. The left side ceased to move; then the jerkings on the right side also became less frequent, until they ceased altogether, and the fit was over. He lay perfectly still until the commencement of the next fit.

At the *post mortem* examination, the whole length of the superior longitudinal sinus contained an old discoloured and partly granular clot, which did not quite fill it. It did not pass into the lateral tributaries of the sinus, except in front, where it extended on each side into a vein from the surface of the frontal lobe. The clot on the left side extended for about two inches outwards, and was *not* accompanied by marked hyperæmia of the convolutions. That on the right side, however, extended across the frontal lobe to its outer surface, as far as the short anterior limb of the fissure of Sylvius, and crossing the anterior portion of all three frontal convolutions. The veins plugged were widely distended by clot, which was dark red, mottled irregularly with paler portions. Several small branches from this right vein were also plugged for about three-quarters of an inch from the vein itself. Over the area corresponding to the blocked veins, the pia mater covering the convolutions was intensely hyperæmic and dotted over with small extravasations. On section, the grey matter of the convolution was much more vascular than that of the opposite side, but was not softened. The exact area of the hyperæmia extended in the form of a band across the three frontal convolutions, involving the greatest area of the superior and the least of the inferior convolutions, and ceasing in front half an inch from the anterior extremity of the hemisphere. There was no abnormal appearance in the rest of the brain.

REMARKS.—The convulsion in this case, in its general character, its commencement in a part capable of the fullest unilateral use, its extension to the other muscles of the same side, the deviation of the head and eyes to that side, the extension of the convulsion to the muscles of the opposite side in the same order, its subsidence on the side first attacked as it became more severe in the other, and its final gradual cessation: in all these points, the attack corresponded perfectly to the common character of a convulsion due to disease of one cerebral hemisphere. There can be little doubt, therefore, that it is to be ascribed to the disturbance of the grey matter of the frontal lobe consequent on the venous thrombosis; and, as the change in the hemisphere was circumscribed and distinct, and the movement with which the fit began was special and uniform, the locality of the lesion becomes interesting in relation to the motor points which galvanisation of the brain has revealed in the lower animals. It would seem that the locality of the disease in this case is anterior to the spot assigned by Dr. Ferrier for the movement of the arm in monkeys. It would cross, I think, the points for the deviation of the head and eyes and the movements of the mouth; but, as those movements in this case only corresponded to what is seen in the evolution of every severe convulsion of unilateral origin, however it may begin, I do not think they can be regarded as specially related to the situation of the disease.

CASE III. *Tumour of Left Hemisphere associated with Fits, which were preceded by an Aura in the Left Wrist; the Aura, when arrested by a Blister, being transferred to the Opposite Side.*—The case is that of a girl, aged 18, who died of acute phthisis in the National Hospital for the Paralysed and Epileptic, having suffered for six years from convulsive attacks. None occurred while she was in the hospital, and their exact character could not be ascertained, but they were accompanied by loss of consciousness and preceded by a sensation in the left wrist. This aura existed before even the earliest attacks. About two years after their commencement, by the direction of Dr. Buzzard, whose out-patient she then was, a blister was applied to the left arm above the point in which the fits seemed to begin. For a time, they were less frequent, and those which occurred commenced by a similar sensation in the *right* wrist.* Afterwards, however, the aura again returned to the left wrist. Attacks occurred once or twice a week, in spite of treatment, and maintained the same general character, and only ceased when the decided phthisical symptoms manifested themselves. At no time was headache a prominent symptom.

After death, the sole lesion discoverable in the brain was a small tumour, about the size of a walnut, situated in the white substance of the *left* hemisphere, above the middle of the lateral ventricle. Its outer boundary was even with the junction of the roof of the lateral ventricle with the corpus callosum. Internally, it extended as far as the grey substance of the convolution of the corpus callosum, which was much thinner opposite the tumour than in front or behind it, and the upper part of the convolution, contiguous to the calloso-marginal fissure, was somewhat softened. A thin layer of white substance lay beneath the tumour, forming the roof of the lateral ventricle. The substance of the growth was soft, vascular, having a reddish, semitranslucent aspect. Its inner boundary was well marked, but there was no limiting capsule or adjacent softening. In its centre were two calcareous masses, irregular in shape, each about the size of a bean. The microscopic characters were most nearly those of a glioma. No structural lesion could be found elsewhere in the brain.

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* *Medico-Chirurgical Review*, April 1866.

† See Hughlings Jackson (*Medical Times and Gazette*, August 15th, 1868).

* See Dr. Buzzard, "On the Arrest of the Epileptic Aura by Blistering" (*Practitioner*, October 1868).

REMARKS.—That the tumour was the cause, direct or indirect, of the convulsive attacks must be regarded as highly probable. It was the only cause discoverable. Its duration was evidently considerable, and may well have corresponded with the duration of the symptoms. Calcareous nodules of such a size rarely form in a tumour of that character, except after a long period of time. The points of chief interest about the case are:

1. The aura existed, and probably, therefore, the convulsion commenced in the arm of the same side as that on which the tumour was situated.

2. The aura was arrested by a blister above its position and then transferred to the opposite side. The arrest by local treatment of the local commencement of a convulsion due to organic brain-disease is, of course, common enough; but migration of the aura to the opposite side in such a case is certainly a rare event.

A fit commencing by motor or sensory alterations in one side of the body must be due to changes taking place in the opposite hemisphere of the brain. Hence the commencing convulsion in this case cannot have been due to the immediate local effect of the tumour, but must have been produced by its influence on the distant grey matter of the opposite hemisphere by means of the commissural fibres, in the midst of which, it should be noted, it was placed. When, by a peripheral impression on the left wrist, such an influence was exerted on the right cerebral hemisphere as to restrain the development in it of the convulsive tendency, the influence of the tumour on the hemisphere in which it was situated was such, that that hemisphere then led the way in developing the convulsion in a similar manner by producing the same symptoms on the opposite side of the body.

The length of time which the tumour had existed without causing other symptoms is worthy of remark. It is no doubt to be accounted for by its distance from the motor tract and by its tendency to degeneration rather than to growth.

A MODE OF EMPLOYING PRESSURE IN CASES OF INFLAMMATORY ENLARGEMENT.*

By S. M. BRADLEY, F.R.C.S.,
Assistant Surgeon to the Royal Infirmary, Manchester.

MY object in this brief communication is to introduce to the profession a mode of employing pressure in certain cases of inflammatory enlargement, which, I think, will prove more efficient and convenient than the methods at present in vogue.

Whether the *modus operandi* of pressure in removing such enlargements be simply due to the support afforded to the weakened vessels, and the too abundant blood, etc., being squeezed from the part, or whether it be due partly to this cause and partly to a stimulation of the lymphatics, forms no part of my theme. I go on the idea that the advantage of pressure in certain cases of inflammatory enlargement and thickening, both acute and chronic, is well established and generally admitted, and, for the sake of brevity, shall confine my remarks to explaining the mode of compressing, 1, the testis; 2, the breast; and 3, various parts of the trunk and extremities, presuming that a little ingenuity will enable the surgeon to adapt the treatment to any other part of the body not specially named.

1. *Mode of Compressing the Testis.*—The admirable results obtained by strapping the testis in cases of orchitis are known to all; but, in spite of this, it is not as frequently practised as it should be, partly owing to the time it takes, and partly to the fact that if improperly applied, as it is apt to be, it does more harm than good, and, according to Van Buren, has even been known to cause gangrene. Further, there is the trouble of reapplying it every forty-eight hours; for in a short time the dwindling testicle hangs loose in its sticky case, and ceases to derive any good from the strapping.

The little appliance which I use obviates these disadvantages, and, while it is more efficient than the plaister, it is perfectly easy to apply. It consists of a piece of stout elastic webbing two and a half inches long by half an inch broad; five ends, each half an inch broad, are appended to each side, each of them measuring about one and three quarter inches; the upper and lower being a little shorter than the central pieces. The belt is applied to the back of the unshaven testicle, and laced up in front from top to bottom. The last end, being placed at right angles to the rest, comes up the front of the testis, and is fastened to the first end of the tape, left long for the purpose, and by this means all is made snug and comfortable.* The apparatus is exhibited applied to an egg-pessary, and I can assure the members of the Association that it is perfectly easy to adapt it as neatly and completely to the swollen testicle. By this appliance, pressure can be applied with the greatest nicety, and, of course, as the testis shrinks, the elastic webbing follows it, so as to keep up an equal and a constant pressure; while, again, if it require tightening, this can be done in a moment without the inconvenience of depilating the scrotum as we are apt to do in dragging off adhesive plaister. I do not wish to encumber this communication with cases; suffice it to say, that I have obtained the most satisfactory results from this mode of compressing the testicle, not only in cases of orchitis, but also in hæmatocele, and in hydrocele, after preliminary tapping.

2. *Mode of Compressing the Breast.*—The breast, no less than the testis, is difficult to compress by strapping, and hence often left unstrapped when great good would accrue from its proper application. To overcome this difficulty, I have had constructed a modification of Salmon and Ody's well-known truss, and find that by this means we can in a minute apply a perfectly uniform and sufficient pressure to the entire gland, or to any part of it which requires compressing. The principal modifications consist in the hoop being larger and less stiff, in the spinal pad being very much larger than in the truss, and in the breast-pad being concave, with a diameter of five or six inches. A ball-and-socket joint, with studs inserted at different points of the outside of this pad, enables us to apply pressure to any part of the gland by means of the strap, which encircles the opposite half of the body to that embraced by the steel hoop, being affixed to any of these studs as circumstances may require. The instrument is prevented from working down by a second strap, or broad piece of tape, passing over the shoulder, connected to the hoop back and front. I cannot but hope that the advantages of this plan are sufficiently obvious to render further argument unnecessary.

3. *Mode of applying Pressure to various parts of the Trunk and Extremities.*—We not unfrequently meet with cases of inflammatory enlargement about the trunk and limbs which require pressure; *e.g.*, the cure of boils and carbuncles is expedited, and the pain is lessened, by such treatment. The simplest, and at the same time the most effectual, method of accomplishing this, is by placing a piece of sheet lead, such as the one here shown, with a hole cut out of the centre large enough to encompass the base of the carbuncle, and then, by means of elastic straps and a lace, affixing it firmly to the part required. Anyone can manufacture such an appliance in a few minutes; the size of the lead sheeting and the length of the straps, of course, being proportioned to the size of the tumour and the part of the body to which it is applied. In the treatment of indolent bubo, with high, hard, and irregular edges, I have obtained most gratifying results from the employment of pressure by means of a piece of sheet lead placed over the bubo, without, of course, any aperture being made in the pad. The three instruments exhibited are manufactured by Messrs. J. and W. Wood of Manchester.

ACUTE INTERSTITIAL INFLAMMATION OF THE KIDNEYS IN SCARLET FEVER, FATAL ON THE TENTH DAY.

By JOSEPH COATS, M.D., Pathologist to the Royal Infirmary, Glasgow.

THE following case seems to me to be of considerable importance, and that on several grounds. In the first place, we have here an acute renal complication occurring in scarlet fever, not, however, at the usual date of the nephritis of scarlet fever, but in the course of the fever itself. Secondly, the kind of inflammation is not that usually met with in connection with scarlet fever; we have here a case of interstitial inflammation, whereas it is well known that the parenchymatous or tubal form is that commonly met with. It may be also worthy of remark, in the third place, that this is a case of acute interstitial nephritis, a form of disease whose existence has been doubted by some. In connection with the first of these points, I subjoin a brief history of the case, and an abstract of the *post mortem* appearances.

Y. R., aged 20, was admitted into the fever wards of Glasgow Royal Infirmary, under Dr. McLaren, on September 30th, 1871. The patient stated that his illness began five days before admission, with loss of appetite, aching pains all over the body, headache, sore throat, difficulty of swallowing, and sickness without vomiting. A scarlet rash was observed by the patient on the second day of his illness; and, on admission, an abundant eruption was present on the trunk and limbs. The throat was slightly affected, but there was difficulty of swallowing. On the day of admission, the temperature was 101.8 deg. in the axilla. After admission, the patient was exceedingly restless, delirious at night, and only half conscious. The eruption is noted as still present on the abdomen on October 4th, and on that day the temperature was 103.4. He died on October 5th, or five days after admission, being the tenth day of the disease.

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* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

* Sometimes I have two pieces placed at right angles to the lower margin. I should add that the belt is curved a little forward at the lower part so as to form a partial bag.

A *post mortem* examination was made about twenty-seven hours after death. Both liver and spleen were considerably enlarged, the liver weighing close on five pounds, and the spleen twenty-one ounces. The mesenteric glands were also enlarged, and red on section, and there was redness of Peyer's patches and enlargement of the solitary follicles in the large intestine. Both kidneys were much enlarged, weighing together twenty-two ounces. They presented to the naked eye very much the appearances of the large white kidney, the cortical substance being very pale and much increased in thickness.

The microscopic characters in this case were quite unequivocal. The enlargement and paleness of the kidney were due to an infiltration of the cortical substance in almost every part by multitudinous round cells. These were packed in between the tubules, separating them, but not to any great extent destroying their epithelium. The cells were about the size of white blood-corpuscles, and had a plump full appearance. A thin transverse section shows the appearance described exceedingly well, especially where the epithelium has dropped out; and such is the number of the round cells, that the section has a very close resemblance to one in my possession, taken from a leuchæmic nodule in the kidney, there being a similar close infiltration of the interstices between the tubules. Of course there is the essential difference, that, in the present case, the condition is generally diffused throughout the cortex. The epithelium of the renal tubules was very little changed, perhaps slightly enlarged and granular. The section, it may be remarked, very closely resembles a wood-cut in Rindfleisch's *Pathological Histology* (New Sydenham Society translation, fig. 159, vol. ii, p. 162).

We have here, therefore, an acute interstitial nephritis, generally diffused through both kidneys, occurring in a case of scarlet fever, which proved fatal on the tenth day. I am not aware that any similar case has hitherto been recorded, but, of itself, it certainly demonstrates the existence of an acute interstitial inflammation of the kidneys.

ON THE DIAGNOSTIC VALUE OF VOMITING AND PAIN IN HEPATIC SUPPURATION.

By J. FAYRER, C.S.I., M.D., F.R.C.P.

DR. MACLEAN, in an interesting communication to the BRITISH MEDICAL JOURNAL of August 1st, 1874, on the subject of the Diagnostic Value of Uncontrollable Vomiting in certain Forms of Hepatic Abscess, alludes to the untrustworthiness of "the absence of pain as a sign of hepatic abscess", and illustrates this by the case of an officer who had served in the recent expedition to the Gold Coast.

The insidious mode in which the liver will pass into a state of suppuration is so frequently observed, not only in India, but after leaving the country, that the justice of Dr. Maclean's remarks would be confirmed by most medical officers of even a few years' experience in the East. But I would add that, in certain cases of liver-abscess, there is not only absence of pain, but sometimes also of vomiting, and of other symptoms, such as cough and pain in the shoulder, that are so frequently present in this disease. For, as pain, when it does occur, is chiefly due to implication of the capsule of the liver in the inflammatory action, and nausea or vomiting either to direct pressure by the swollen liver or to irritation of the vagus, so, when the peritoneal covering is not involved, and the pressure, owing to the small size of the abscess, is not great, these symptoms may be wanting. Nay, more: the liver may suppurate without any more marked symptom than such as may be seen in ordinary malarious poisoning, in which the general deterioration of health is expressed by feverish attacks attended by some hepatic congestion; and the first evidence of the formation of matter may be the sudden and unexpected evacuation, through the stomach, bowels, or lung, of the contents of the abscess; or perhaps sudden collapse and speedy death from rupture into the peritoneal cavity. In such cases, before the above catastrophe happens, diagnosis is most uncertain, and often attended with great difficulty, from the absence of well marked diagnostic symptoms. In others, again, where all the most characteristic indications have been present, including rigors or chills, fevers, sweats, high temperature, pain, and vomiting, they occasionally pass away, and health is restored, without any proof that pus has really formed. It is to be borne in mind that an abscess may have undergone absorption, or that it may have opened into the intestine, and the contents have drained away so gradually, in combination with the fluid excretions of diarrhœa, as to have escaped notice. Therefore, although the diagnosis of hepatic abscess in many cases is easy enough, it is certain that in some it is very difficult, and may escape detection even by the most careful observer. Probably in no case does the knowledge that results from long experience prove of more service than in this.

The following case illustrates the value of Dr. Maclean's remarks on the absence of pain. It also shows that even vomiting and other symptoms, generally regarded as significant of its presence, may also be absent when liver-abscess has occurred.

A young Englishman, aged about 21, of fair complexion, healthy constitution, and of active and vigorous frame, who had been two or three years in India, and occupied in a merchant's office, complained of failing health, loss of appetite, feverish attacks, tenderness and fulness in the hepatic region, inability to rest at night, a general sense of *malaise*, and disordered bowels. He looked anæmic, and the conjunctivæ were tinged with bile. His tongue was coated, and his pulse quicker than natural. The temperature was not taken. There had been no rigors, though probably he may have had chills. Neither vomiting, severe pain, nor cough, had occurred. He was continuing to attend office, and up to that time, I believe, had not been absent from his work. On examining the hepatic region, I found that there was considerable enlargement of the liver, but it was unaccompanied by any marked tenderness. I prescribed such remedies as appeared necessary, and recommended change to sea or to the Sand-heads.

I did not see him again for some time; he had gone to reside in the vicinity, out of Calcutta. When I saw him, some weeks later, he was looking thin and pale, but in good spirits. He was at his work as usual, and, I believe, had not been absent more than a day or two. He said he felt weak, but was rapidly regaining strength. He informed me that one day, after dinner with some friends, one of them, in play, accidentally gave him a blow in the region of the liver. This produced immediate symptoms of collapse, attended by coughing and vomiting of a large quantity of purulent matter. The blow had evidently ruptured a liver-abscess which opened into the stomach, and was thus evacuated. On recovery from the shock and depression caused by this accident, he soon began to regain strength and to improve in health. He returned within two or three days to his duty, and ultimately regained his former health, and is, I believe, still alive and well. The absence of any pulmonary symptom shows that the abscess did not open into the lung.

The freedom from any marked symptom in this case illustrates the insidious mode in which liver-abscess will sometimes form, how difficult the diagnosis may be, and how cautious one should be in framing it.

A CASE OF INTERMITTING HYDRONEPHROSIS.*

BY THOMAS COLE, M.D., M.R.C.P., Physician to the Royal United Hospital, Bath.

ALTHOUGH the subject of my paper has not yet succumbed to his disease—and I hope the day is far distant when he will render his case pathologically complete—yet I trust that the meeting will not be uninterested in the notes I have ventured to bring under consideration tonight.

Mr. S., aged 23, of medium height, well-made but spare, living in a healthy village about twelve miles from Bath, consulted me in March, 1873. He had enjoyed fair health up to 1870, when, one day, a pain seized him in the left lumbar region, accompanied by sickness. It lasted a few hours, and then left him. After a month's interval it came again, and molested him, after the second attack, at intervals of one or two months. Latterly the intervals had been much shortened, being about a fortnight. The attacks lasted from a few hours to several days. The pain never affected the back, nor did it extend down the legs, testicle, or penis. He expectorated a large quantity of slimy matter during the paroxysms, but none during the intervals. The appetite, always good when he was free, became very bad. He was never jaundiced. The bowels were generally confined. He never noticed anything wrong with the urine. The tongue was red, with raised papillæ, and slightly furred. On physical examination not the slightest trace of disease could be discovered. Urine passed at the time of his visit was found free from any abnormality, except a superabundance of octahedral crystals of oxalate of lime. The pulse was regular and feeble. I suggested the desirability of witnessing an attack, and accordingly saw him during two, at his home.

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* Read before the Bath and Bristol Branch.

The diagnosis I then formed has been corroborated during the last three months, a visit to Bath having given me the opportunity of narrowly watching my patient in three attacks. During the year he has been under my care, he has been seized at intervals varying from a week to seven weeks. The intervals, on an average, have certainly been longer than they were before that time. He has always led a quiet, sedentary life, and there appear to have been no special exciting causes inducing the paroxysms. Sometimes they came after a meal, or a walk, and once a railway journey was thought to have a similarly injurious influence. The patient, before I saw him, always felt a fulness on the left side of the abdomen when seized, but had not the least idea of any tumour. Now, however, since he has been taught to minutely observe his condition, he detects a fulness of the left side as the first in the series of events.

The natural history of a seizure is as follows. Fulness below the left costal margin is, as I said before, the first symptom. It is shortly followed by pain, sharp at first, afterwards becoming dull and aching, over the left front of the abdomen. There is none in the flank. Vomiting quickly follows, the ordinary contents of the stomach being ejected. This may occur twice or three times, at shorter or longer intervals. The temperature remains normal; the pulse and respirations quiet. The tongue becomes somewhat furred, the appetite goes, and soon the patient begins to expectorate a great quantity of liquid, sometimes tinged with blood, more often not. It seems a mixture of saliva and gastric mucus. I have known more than a pint and a half during an attack. The pain subsides in from twelve to thirty-six hours, and there is no more uneasiness. Very shortly after an attack commences, a large tumour is detected, reaching from the left costal margin to the level of the umbilicus, or even below it; and from the median line to about an inch or inch and a half from the extreme left edge of the abdomen. It can readily be felt in the left flank. It distinctly pushes the belly of the left rectus muscle forward, and alters the contour of the front surface of the abdomen. The fingers can be inserted by pressure between the upper edge of the mass, and the ribs. There is generally obscure resonance in front of the swelling—no doubt from the descending colon. A line of resonance separates the upper part of the tumour from the costal margin. It has a distinct elastic feel to the touch; fluctuation is not, however, satisfactorily made out. It is easily moved about between the fingers of the two hands, and is seen and felt to move forwards when the hand is pressed into the flank against it.

It descends on inspiration one or two inches, resuming its position on expiration. It is tender at first, but, after the first day or two, handling is borne without inconvenience. The swelling varies a little in size, but, as a rule, resembles in size and shape a large ostrich egg, one end pointing to a spot about an inch and a half to the left of the umbilicus, and just above it, the other to the anterior extremities of the floating ribs. The stomach resonance is increased upwards. I think I can always satisfactorily make out the spleen in its proper place, by percussion. The bowels are generally confined during the attack. This may partly be accounted for by the opiates given at the onset. The evacuations, when they occur, are perfectly natural. The urine used always to remain apparently unaltered, but was rather scanty sometimes. During the three attacks in Bath, it became scanty and loaded with urates; the specific gravity being about 1025. At my request, the patient made a series of observations running through an attack, of the quantity of urine. The result showed that, from November the 5th to December the 1st, 1873, when he was free, the amount varied daily from 1½ to 3 pints. On December 1st, when a paroxysm began, it was 1¾ pints; on the 2nd, 1½ pints; on the 3rd, 4th, and 5th, ¾ pint; from the 6th to the 14th, a pint; and on the 15th, when the swelling passed away, it was 1½ pints. Thus, during the attack, the urine was evidently diminished in quantity. This was the longest attack he ever experienced—lasting a fortnight. Coincidently with the disappearance of the swelling, he felt a frequent desire to pass urine—three times in an hour or so. This never was the case under ordinary circumstances. After the first two or three days the patient feels quite well, and his appetite returns; but he does not, of course, get up until the tumour has disappeared. It goes away rapidly, as a rule. For instance, the last time, he went to sleep at 11 P.M., the swelling being as large as ever; and at 4 A.M. he awoke, and found his enemy had fled; and at 10 A.M. I could not detect the least evidence of its existence. In the intervals the urine had always contained a superabundance of oxalate of lime—no pus, blood, albumen, nor casts. During the attacks the oxalates were much diminished, and nothing abnormal could be seen with the microscope. But, in the urine passed while the tumour was diminishing, and immediately after it had entirely disappeared, the oxalates were again superabundant, and also aggregated into microscopic calculi. A good many pus-cells were seen in each field, and here and there a blood-cell, with some large nucleated cells in various stages of degeneration, and occasional casts from the straight renal tubes. There was, of course, a slight trace of albumen. After a day or two the urine resumed its normal state, and not a blood nor pus-cell could be seen after repeated microscopic examinations; and the urine, after standing some hours, showed only the very faintest deposit.

Numerous medical men had been consulted previously to myself, but only one discovered anything abnormal, and he decided that the spleen was enlarged. The physical characters of the tumour did not suggest to me the idea of any such condition, but seemed decidedly to point to the left kidney, and the urinary changes fully confirmed that opinion. What is the cause of this intermitting hydronephrosis? At first I was much inclined to believe there must be some congenital malformation of the ureter, from the total absence of symptoms of renal calculus. I know it may be said that a congenital state should have been attended with symptoms from a very early period. But Dr. W. Roberts relates a case in which hydronephrotic attacks did not commence till quite as late as my patient's did. Of course, I am well aware that renal calculus does not necessarily produce any symptoms at all. And closer study convinces me that the pelvis of the left kidney contains a calculus, propably of oxalate of lime, which from time to time is dislodged from its usual position, and, falling over the entrance of the ureter, blocks the organ, sets up, by spasm and irritation, the pain, and causes the temporary hydronephrosis. The vomiting may be partly reflex, partly due to the pressure of the mass on the cardiac end of the stomach. The fluid so profusely discharged by the mouth may partly be due to gastric catarrh. The pus and blood in the urine, after an attack, would be produced by irritation of the mucous membrane of the pelvis of the kidney. A few doses of liquor opii sedativus, with or without effervescing saline draughts, have always effectually relieved the pain and vomiting. I have not found altering the position of the patient of any use in dislodging the calculus. The treatment in the intervals, certainly with great general improvement, has been directed against the so-called oxalic acid diathesis. I do not myself see any other satisfactory solution, but I should be grateful for any remarks which would throw more light on this, to me, very interesting case.

TWO CASES OF DIASTASIS IN ADOLESCENTS.

By CLEMENT DUKES, M.B., B.S.Lond.,
Medical Officer to Rugby School.

CASE I.—Mr. X., aged 18, on December 10th, 1872, while playing in the close at the school, was pushed on the outer side of his right leg while his legs were extended laterally from the median line, when he suddenly felt acute pain above the knee, and fell down; and the limb was powerless.

On examination, the knee-joint was not swollen. No distortion was perceptible to the eye. The leg lay powerless on the bed. The foot was neither twisted nor everted. The limb was slightly shortened on measurement. On taking hold of the limb, no crepitus could be elicited, nor any movement, though pain was felt, whichever way it was moved. On slightly flexing the leg, a rapid movement in the limb was felt, like two smooth surfaces passing quickly one over the other. The situation of this rub was found by a slight depression being felt about two inches above the knee; and the lower bone could be felt slightly prominent posteriorly on the upper part of the popliteal space, being rotated a little backwards by the gastrocnemius. The diagnosis was made of diastasis, or separation of the condyles from the shaft of the femur. This epiphysis is the last to unite—viz., at twenty years.

Treatment.—The difficulty was to keep the surfaces of the bone accurately together, owing to their slippery nature.

1. A suspending thigh-splint with pulleys was first tried, but without success.

2. The straight "long outside" splint, with the perineal extenders, was then applied with better success, but not complete.

3. To the "long outside" was added a small straight back-splint with a pad sewn on it, to keep the lower end from slipping backwards. The perineal band was moved, and extension kept up by a weight passing over pulley at foot of bed.

By this means, a firm union was obtained at the end of six weeks; the limb was of full length; and he was allowed to get up.

On examining the limb, no one could have told that there had been a disunion; for there was not the slightest thickening at the seat of injury; no provisional callus being thrown out as in fracture, union being effected in the cartilage. Fearing lest this should not be strong enough at the end of six weeks to support a tall strongly-built youth, I made a leather case, which he wore for a week or two.

Case ii.—Mr. T., aged 16, on July 4th, 1874, for three months had had a little pain at the inner side of the arm at the elbow, when exercising in the gymnasium. This culminated in an injury there, through a fall from the horizontal bar while performing the exercise called "back away". His account is, that he kept hold of the bar with his hands too long, so that in the turn, instead of alighting on his feet as usual, he fell on "all fours", with his arms extended; but the force was sufficient to make the left arm suddenly flex outwards. He felt something crack, and cause him pain at the elbow and a feeling of faintness.

On inspection, the arm was held stiff, neither flexed nor extended. There was a swelling over the internal condyle of the humerus, like a swelled bursa, making the condyle appear very prominent. Immediately below this, instead of the usual convex contour on the inner as well as the outer side side of the forearm, there was a considerable hollow or concave outline, with slight extra thickness of the muscles of the forearm antero-posteriorly. Owing to this, the outer contour of the forearm seemed increased in convexity, but was in reality normal when the two arms were compared; thus dispelling the idea of a dislocation of the radius and ulna outwards, which it resembled at first, from the prominent inner condyle with the depression below.

On manipulation, flexion and extension were perfect and almost painless; also rotation internally and externally; but, when the palm of the left hand was placed over the inner condyle, and the arm moved, great pain was elicited. On manipulating over the inner condyle more minutely, a morsel of bone could be felt, freely movable when laid hold of with the fingers, causing no crepitus, but moving easily and smoothly, and distinctly external to the joint; being a separation of the internal epicondyle from the humerus, caused by muscular action through the forcible flexion of the forearm on the arm. There was no injury of the ulna nerve. The inner condyle of the humerus unites at the age of eighteen.

Treatment.—A rectangular splint was applied, and a figure-of-8 bandage and a pad on the elbow. Position and union were effected well.

SURGICAL MEMORANDA.

AURAL TUMOUR.

On Saturday morning, the 5th instant, Miss S., aged 15, came to show me a tumour, of the size of a large cherry, growing from her left ear. Its root was a little behind the meatus, and the tumour itself was of the fungoid or cauliflower excrescence nature, and of a pale red colour, occasionally bleeding when touched. A delicately made *écraseur* would have removed it at once very nicely; but, not having one at hand, I tied it with silk. Next morning, it had mortified; and, on the 7th, it being loose, I easily twisted it off. Daily application of lunar caustic has now completed the cure. I wish to record this, as, during thirty years' experience, I have not seen a similar case.

R. M. Mann.

OBSTETRIC MEMORANDA.

ON THE INDUCTION OF PREMATURE LABOUR.

Dr. J. G. Swayne's paper on the induction of premature labour, in the Journal of August 8th, has brought to my recollection two occasions on which I was obliged to resort to that treatment to secure the safety of one of my patients.

Prior to 1850, I had attended Mrs. P. in her first and second confinements, and, from the contracted state of the pelvis on both occasions, I was obliged to resort to the use of the long forceps to accomplish her delivery. The first time, she made a tolerably good recovery, but, on the second occasion, from shock, etc., her life was so jeopardised, that I felt it would be unsafe to let her go on to the full period of gestation; if she should again become pregnant, I determined to produce premature labour. Early in 1851, I was informed she had again conceived, and, like all the rest of the world, I went to London in that year to the great Exhibition, when, meeting the late Dr. Lever at my old medical school (Guy's), where he at that time was the Lecturer on Midwifery, I made him acquainted with the case, asking his advice as to the mode of treatment. He said I was not only justified in resorting to premature labour, but that it was my duty to do so. Thus fortified with the opinion of one of authority in such matters, soon after my return home, and as near as I could find, in the early part of the eighth month of pregnancy, I induced premature labour by merely puncturing the membranes with a male catheter, allowing, as near as I could guess, four ounces of the liquor amnii to escape through before withdrawing it; the labour was completed in less than twelve hours. She again became pregnant, and I pursued the same plan with equally good results, the second labour being also completed in less than twelve hours. In each case, the child was born alive, the first surviving but a few hours, the other three or four days. The mother on each occasion made an excellent recovery. She has not been pregnant since, and is now a widow. When such excellent results follow the simple treatment I pursued, and we find from Dr. Swayne's cases that those in which rupture of the membranes was at first performed were the soonest to terminate, I fail to see that the treatment by sponge-tents, tangle-tents, etc., is superior or equal to the old mode of treatment; nor can I fully agree with the statement, "that to puncture the membranes before there is any dilatation of the os is to put the cart before the horse, and to invert the process of labour"; for how frequently we find the membranes are ruptured in the very earliest stage of labour, even before there is the least dilatation of the os, yet we see that Nature, "with the cart before the horse", if not quite so expeditiously, thus travels on to a prosperous termination of her journey.

Stephen Clogg, Fellow of the Obstetrical Society.

CLINICAL MEMORANDA.

PERFORATION OF THE RECTUM: PERITONITIS: DEATH.

A brief account of the following interesting case is, I think, deserving of a place in the Clinical Memoranda. On August 10th, I saw, in conjunction with my friend Mr. Newton, a young girl, 15 years of age, who was suffering from all the symptoms of the most acute form of peritonitis. The history obtained of the case was, that, on the previous day, the girl had gone to visit her uncle, and, whilst she was jumping on to his knee, an ordinary walking-stick, which she had not observed him to be holding between his legs, had passed up the anus. She withdrew the stick, and, though she complained of pain, she was able to continue to amuse herself for the rest of the day, the acute symptoms not developing themselves till the following night. On introducing my finger into the rectum as far as it would reach, I discovered a rent in its anterior wall, which was large enough to admit the finger into the peritoneal cavity at the apex of the recto-vaginal pouch. Death took place within forty-eight hours, and the site of the wound was verified by *post mortem* examination.

Christopher S. Jeaffreson, Newcastle-on-Tyne.

DEATH FROM IDIOPATHIC RUPTURE OF SPLEEN.[*]

A lady, aged 35, of middle height, stout, married only five months, highly hysterical, had never been quite well since her marriage. She had menstruated regularly, but had irritable stomach, with frequent attacks of vomiting, and sometimes suffered considerable pain in the gastric region. She had been under the treatment of my friend Dr. Young for four or five weeks for these symptoms, which had been alleviated, and she was considered to be convalescent. *She never had enteric fever.* On the evening of August 5th, 1873, she was suddenly taken ill after eating some herring, and was attended by Dr. Frobisher. Violent retching continued from 9 p.m. till noon next day, and was followed, after the first hour or two of sickness, by acute pain in the left side, which rapidly spread over the whole abdomen. At noon, she sank into a state of collapse. When I saw her at 4 p.m. with Dr. Frobisher, she presented the appearance of a person in the last stage of Asiatic cholera—cold, restless, pallid, blue lips, pulseless at the wrist, whispering voice, clammy sweat—but no diarrhœa. Was it gall-stone, intussusception, internal strangulation, or rupture of an aneurism? One thing was evident—that death was inevitable. She died at 5 o'clock, twenty hours from the commencement. With great difficulty, a necropsy was obtained, and was made two days after death by myself in conjunction with Drs. Young and Frobisher. The body was very fat. There were two inches of fat in the parietes, besides a thick subperitoneal layer. The abdominal viscera were bloodless. A large clot, several pounds in weight, overlapped the lower edge of the great omentum and filled the left side of the abdomen; besides which, there was a large quantity of dark fluid blood. There were no adhesions, or signs of effused lymph, or of peritoneal inflammation anywhere. On tracing up the blood to its source, it was found to issue from a rent in the gastro-splenic omentum, which was distended into a large pouch. On enlarging the opening, more clot and fluid blood escaped, and then the spleen was seen, shrunken, pale, flabby, and its lower portion disintegrated and in a state of muddy pulp. The stomach and duodenum contained no ulcer or other unhealthy appearance. The liver was pale, flabby, and very friable. The kidneys were healthy. The gall-bladder and duct were devoid of calculi. The thorax was not opened. The only similar case of which I ever heard, or of which I have been able to find any record, is one which my friend Dr. Deville of Harrogate communicated to the Branch meeting at Scarborough last year.

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[*] Read before the Leeds and West Riding Medico-Chirurgical Society.

EDWARD ATKINSON, Surgeon to the Leeds General Infirmary.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

NOTES OF OPERATIONS, BY MR. ANDREW CLARK.

Wednesday, September 9th.

FOR particulars respecting the following cases, we are indebted to Mr. Arthur Tomes, the senior house-surgeon.

Removal of an Epithelioma from the Tongue.—The patient, a man aged 56, had been admitted on the previous day, on account of a large indurated ulcer situated on the under surface of the tongue, just to the left of the frænum and immediately over the ranine artery; it presented all the characters of an epithelioma, and there was one enlarged gland under the jaw on the same side. The patient said that the sore had appeared only four weeks before. Ether having been administered and the tongue drawn well forward, Mr. Clark attempted to remove the indurated portion by means of the *écraseur*; but, owing to the unfavourable situation, the wire slipped, and the excision was completed with the knife. Free hæmorrhage followed, but was arrested by the application of ice and perchloride of iron.

Removal of Molluscum from the Breast.—This patient, a married woman, aged 35, had a hard wart-like growth, about the size of a pea, situated a little to the inner side of the nipple; the breast-tissue around it was indurated, and it had somewhat the appearance of commencing epithelioma. It was, however, of eighteen months' duration; moreover, the patient was suckling a child five months old, and it had a copious eruption of molluscum on its face. Ether was given, and all doubt as to the nature of the growth was soon removed.

Removal of a Large Nasal Polypus.—The subject of this operation was a deaf but healthy old woman of 68. Her posterior nares were completely obstructed by a large tumour situated on the right side of the septum, which projected backwards into the pharynx and greatly impeded respiration. The part which could be seen was hard, vascular, and ulcerated, looking more like an epithelioma than a polypus; the patient had only noticed it two months before; there were no enlarged glands. The nature and extent of the disease being doubtful, it was determined to lay open the nasal fossa on this side and explore. Mr. Clark accordingly cut through the right ala at its junction with the cheek. The anterior portion of the tumour was then found to be lying free in the nostril, but, posteriorly, it sprang from, or had grown into, the cavity of the antrum, had pushed the nasal septum to the left, and was continuous with the mass which was seen in the pharynx. In order to ascertain the attachment of the tumour, and to facilitate its removal, Mr. Clark was obliged to lay open the antrum, which he did by continuing his first incision downwards through the upper lip, dissecting up the cheek and cutting away a portion of the superior maxilla with bone-forceps. The tumour was now easily dislodged by passing a finger into the mouth and behind the soft palate; it was then found to be attached to the superior meatus of the nose by a limited base; when removed, it formed an irregular pear-shaped mass, with a smooth surface and firm gelatinous consistence. Microscopic examination showed it to be a fibro-gelatinous polypus. All bleeding was then arrested by the actual cautery, ice, and pressure; and the wound was closed with hare-lip pins and silk sutures. On the 16th, the wound was well united throughout, and the patient expressed great satisfaction at being able to breathe through the nostrils.

Two Cases of Excision of the Knee-Joint.—Both were children suffering from strumous disease. The first was a boy, aged 6, with disease of the left knee-joint of twelve months' duration. There had been great contraction of the limb, with general enlargement of the joint and some dislocation backwards of the tibia. The contraction had been partly overcome by means of splints, and all active inflammation had subsided; but the joint was left utterly disorganised, with sinuses opening externally. Mr. Clark excised in the usual manner, making a horseshoe-shaped incision over the front of the joint. The head of the tibia was found to be extensively diseased, so that, after sawing off a part of the epiphysis, a gouge had to be applied to several carious spots. A thin lamina was then sawn off the condyles of the femur, which were only slightly affected. The leg was then placed in a "Ferguson's excision-splint" with a bracketed side-piece. Some hæmorrhage occurred three hours after the operation, but was checked by the application of an ice-bag, and, up to this time (September 16th), the case has progressed exceedingly well. The second case was that of a girl aged 10. The knee had been diseased more than four years, and was partially ankylosed in a semiflexed position. There were several discharging sinuses on both sides leading into the joint. The operation was performed in the same way as the first, except that a wedge-shaped piece of bone was removed, in order to correct the faulty position of the limb; here again the disease was confined to the head of the tibia and the outer condyle of the femur. The limb was put on an ordinary straight-back splint with a foot-piece; a bracketed splint was also applied on the outside. This patient has also gone on well so far; but the ultimate hope of an useful limb seems more doubtful, on account of the amount of the epiphyses which was necessarily removed.

Osteo-Sarcoma of the Fibula; Amputation through the Thigh.—This patient was a boy, aged 16, who had been admitted about six weeks previously, on account of a swelling of the right leg. This was at first general and tender, so as to give the idea of subacute periostitis; but, after some days' rest in bed, the general swelling subsided, and there remained a more circumscribed, oval, hard tumour on the outer side of the leg, evidently connected with the middle third of the fibula. Measured over the most prominent part of the tumour, the girth of this leg was 2½ inches more than that of the other at the same level; there was a chain of slightly enlarged glands in the right groin. During the next five weeks, the tumour gradually increased and became also more painful, especially at night. Amongst other remedies, veratrine ointment was tried, for the purpose of allaying the pain, but without effect. The patient also steadily lost weight. On September 7th, an exploratory incision was made, and a portion of the growth removed for microscopical examination; it was found to present the characteristic structure of a round-celled osteo sarcoma. Accordingly, on the 9th, Mr. Clark removed the leg by Teale's amputation just above the knee, taking away the patella. Carbolised twine was used for the ligatures; the flaps were brought together with silk sutures and the stump dressed with carbolised oil on lint. A week after the operation, the boy was doing well; the wound had united in the greater part of its extent, and all the ligatures had come away, except that on the main vessel. The operations were all performed whilst the patient was under the influence of ether, which has been habitually administered at this hospital, in preference to chloroform, during the last two years.

BIRMINGHAM GENERAL HOSPITAL.

POST MORTEM EXAMINATION OF A CASE OF CHRONIC PLEURISY, IN WHICH ASPIRATION HAD BEEN PERFORMED FOUR TIMES.

(Under the care of Dr. RUSSELL.)

IN the JOURNAL for August 8th, I commented upon a case of chronic pleurisy, my comments having special reference to certain cautions necessary to be observed when performing aspiration in similar cases. A brief description of the *post mortem* examination of the patient may not be without interest.

Since the last aspiration, the patient passed from under my notice. On the occasion of the last two operations, I noted the effect of aspiration in drawing over the opposite lung beyond the right edge of the sternum to supply the vacuum created by the withdrawal of the fluid; the fluid within the chest must have again increased, and the opposite lung have retreated to a corresponding extent. He died just two months after the last operation.

On *post mortem* examination, we found the patient's face livid, in correspondence with the presence of a considerable amount of fluid in the hitherto healthy pleura. In the right side, the side originally affected, there were one hundred ounces of opalescent fluid. The left lung no longer advanced beyond the left edge of the sternum, though, when inflated, it passed across into the right thorax almost to the point of junction of the upper cartilages with the ribs; its edge was more rounded than natural; its tissue was only slightly distended. This lung was perfectly unadherent.

The right lung was reduced to a lump of the size of a small fist, divided into three rounded nodules by the crossing of some false membrane, more recent than the firm but thin capsule which completely enveloped the organ, effectually opposing any inflation; this capsule peeled off without difficulty. It is noteworthy that the most prominent of the three nodules of lung was in actual contact with the inner surface of one of the lower ribs near the angle; and this doubtless afforded an explanation of the unusual distinctness with which the sounds of breathing were heard at the base of the chest, a distinctness quite disproportioned to the probable amount of fluid in the pleural cavity. The tissue of both lungs was perfectly healthy.

One other fact connected with the physical signs observed in the patient during life is worthy of observation. From the root of the right (the compressed) lung and from the mediastinum, a lamina of fibrous membrane, consisting of pleura which had attained the density of a thick fascia, ran forwards in connection with the pericardium, thence passed behind the trachea, adhering closely to that tube, though not compressing it, and advanced forward so as to form a dense fold finally attached to the sternal portion of the clavicle and to the first rib. The presence of this fold at once accounted for the loud amphoric breathing, which had been heard repeatedly in the subclavian space, at separate intervals, and had at first created some difficulty in the diagnosis. This sound was believed to be conducted from the trachea, but no solid matter lay between that tube and the sternum to convey it, and hence its presence was not fully explained until after death. This arrangement and the arrangement noted previously deserve observation, as they afford an illustration of the abnormities which are apt to be produced in cases of chronic pleurisy, and may obscure the diagnosis; such phenomena are especially the effect of adhesions, and may give a peculiar complexion to any ordinary case. The heart weighed twenty-three ounces; the left ventricle was greatly hypertrophied, in agreement with the disease of the kidneys; the right ventricle was considerably dilated, in consequence of the obstructed circulation through the chest, occasioned by the sudden loss of one lung. The kidneys were in the second stage of chronic desquamative nephritis; they weighed together nine ounces and a half. The liver weighed sixty ounces; it was nearly healthy.

It is hardly necessary to observe that in this case the utility of aspiration was small. Of course, the operation was powerless to release the imprisoned lung; its benefit was confined to relieving the thoracic organs of the embarrassment occasioned by the presence of so much fluid—in itself no small benefit. But I have already stated the caution which I found it necessary to employ in drawing out the fluid, and the distress in breathing which ensued the moment an inconvenient vacuum in the chest was produced; and I have pointed out the danger of interfering with the circulation through the large intrathoracic vessels, by creating a vacuum not at once supplied by collapse of the chest-walls or by expansion of the opposite lung.

For such cases, the old operation seems preferable; and I should have employed it in this instance but for the presence elsewhere of other more serious disease.

BELFORD HOSPITAL, FORT WILLIAM.

TWO CASES OF SEVERE CORYZA, ETC., INDUCED BY THE ADMINISTRATION OF SMALL QUANTITIES OF IODIDE OF POTASSIUM.

(Under the Care of Dr. ALLAN.)

CASE I.—Duncan McC., an old man, was admitted to the Belford Hospital on November 11th, 1873, complaining of pain in the head—occasionally a sensation as if he could not keep his feet, and at times failure of vision. On the 12th, the following was his condition: Pulse 72; tongue clean; pupils normal; bowels inclined to be constipated; sleep pretty good; no appetite; heart-sounds normal. He was ordered to have the bowels moved, and to take three times a day a tablespoonful of a mixture containing forty grains of iodide of potassium in four ounces of infusion of quassia. Next day, the 13th, there were well marked coryza; puffiness round the eyes; watering of the eyes; "sniffing" in the nose, etc. The headache, the patient said, was greatly relieved. He had one dose of the medicine on the evening of the 12th, and another on the morning of the 13th; in other words, the symptoms appeared after the patient had taken ten grains of the iodide.

CASE II.—Eliza W., aged 39, was admitted on December 8th suffering from debility. She had had an attack of rheumatism nine months previously. There were swellings on the fingers, wrist, etc, the result of the rheumatic attack. She was put on tincture of muriate of iron. The rheumatic pains returned. Nitrate of potash and bicarbonate of soda were then administered. On December 23rd she was ordered to have, three times a day, five grains of iodide of potassium in infusion of quassia. On December 25th, the patient was found to be suffering from a very severe attack of coryza, etc., like "cold in the head". The symptoms were very marked; they had come on the previous night. The woman had not taken more than six doses of her medicine, *i.e.*, thirty grains of the iodide.

SELECTIONS FROM JOURNALS.

PATHOLOGY.

THE ORIGIN OF PERFORATING ULCER OF THE STOMACH.—Dr. A. Böttcher (*Dorpater Medicinishe Zeitschrift*, 1874) found, in characteristic cases of gastric and duodenal round ulcer, that the base of the ulcers was covered with a thin layer, which, among the *débris* of necrosed tissue, contained dense masses, which, from their resistance to acetic acid, glycerine, and caustic potash, he inferred to consist of micrococci. He hence believes that at least a part of such ulcers are of fungous origin.—*Centralblatt für die Medicin. Wissenschaften*, July 25th, 1874.

PATHOLOGICAL RELATIONS OF INFANTILE PARALYSIS.—Dr. Mary Putnam Jacobi (*American Journal of Obstetrics*, May 1874) gives an elaborate contribution on the above subject. The pathological importance of its study is summed up as follows. 1. It links together the most conspicuous external deformities, involving entire limbs, with lesions of internal microscopic groups of cells so minute as until recently to have escaped observation. 2. By exquisite localisation of pathological lesions, it confirms the doctrine of localisation of function and independence of morbid processes in special groups of nerve-cells. 3. It helps to establish a group of diseases bearing various relations of cause or effect to this same group of cells—anterior spinal as adult spinal paralysis, progressive muscular atrophy; finally, even bulbar paralysis, where the disease is confined to the groups of motor cells in the medulla. 4. Thus it helps to show the immense peculiar influence exercised upon the nutrition of muscles by the nerve-cells influencing their motor nerves. 5. As a localised myelitis, certain cases at least of infantile paralysis are to be considered in their relations to other forms of myelitis, localised or diffused, parenchymatous or interstitial. They are to be contrasted with cases of tabes dorsalis, in which the myelitis localised in the posterior cornua determines a fasciculated sclerosis of the posterior columns relatively more frequent and important than the anterior sclerosis; also with the anterior lesion of wasting palsy, which, from the slow march of the disease, may often depend on an extension of irritation from the periphery, and with acute diffused central myelitis, with equally rapid march, but where the lesion involves both neuroglia and nervous elements. 6. As originally confined to the latter, the lesions of infantile paralysis offer one of the best illustrations of the "parenchymatous inflammations" described by Virchow. 7. By its sudden invasion, infantile paralysis is symptomatically allied to such accidents of the vascular system as congestion or hæmorrhage. But, as these are shown to be either absent or rare, or consecutive to an affection of nerve-cells, the capacity for independent morbid action possessed by these latter receives another confirmation. 8. These affections serve as a link between the so-called reflex or inhibitory paralysis and those dependent on marked lesions of the cord. 9. Finally, they trace minutely the successive steps in a morbid process that, beginning in a functional alteration of cellular nutrition, terminates in organic destruction of tissue, and thus dissect apart the complex phenomena both of inflammation and of general cell-life.

INNERVATION OF THE UTERUS.—Professor Cyon, in Pflüger's *Archiv* (*London Obstetrical Journal*, April 1874), gives the following results of experiments made upon the above point. Dogs and rabbits were used, some under the influence of curare during the experiments, and some not. 1. The uterine plexus is the most important, if not the only motor nerve which can produce effectual movements of the uterus by the irritation of its peripheral ends. Irritation of the central ends only gave rise to severe vomiting. 2. Irritation of the central ends of the first two sacral nerves produces in a reflex way powerful uterine movements, which cease after the uterine plexus has been cut through. Irritation of the peripheral nerves gives rise to powerful contractions of the bladder and rectum. 3. Irritation of the brachial, crural, median, sciatic nerves, etc., gives rise to no peristaltic movements of the uterus, but only causes a slight rigidity and paleness. 4. The effect of the irritation of these nerves disappears if the aorta has been previously compressed; but irritation of the central ends of the sacral nerves still causes, even after the closure of the aorta, peristaltic movements of the uterus. 5. Suffocation through continued interruption of respiration causes powerful peristaltic movements, probably through direct excitation of the involuntary muscular fibres by the accumulation of carbonic acid gas.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 26TH, 1874.

UPPER CLASS VITAL STATISTICS.

WHETHER regarded from a social, sanitary, or actuarial point of view, the *Statistics of Families in the Upper and Professional Classes*, recently prepared for the National Life Assurance Society by their actuary, Mr. Charles Ansell, jun., are full of value, and possess an interest which is of even more than national importance. Until a comparatively recent date, the only English life-tables that commanded general confidence were known as the "Northampton" and "Carlisle". The Northampton tables, prepared by Dr. Richard Price, were based upon the deaths which occurred in the town of Northampton during the forty-six years 1735 to 1780. The population of the town in 1746 was ascertained to be 5,136. The Carlisle tables were founded by Dr. Heysham upon observation of the deaths in the city of Carlisle during eight years, the population averaging 8,177. This table was published by Mr. Joshua Milne in 1815. These life-tables, based upon the vital statistics of towns many generations ago, can hardly be accepted as affording an index of the probability of living or dying, either in town or country, at the present day.

The "Equity Experience" tables, founded upon the experience of 21,398 lives assured in the Equitable Assurance Society, are inapplicable to a general population, because all persons insured in good offices are selected from a much larger number of persons offering themselves for insurance, of whom all of bad or doubtful health have been eliminated.

The National English Life-Tables, prepared at the General Register Office by Dr. William Farr, F.R.S., based as they are upon the whole of the deaths registered in England and Wales during the seventeen years 1838 to 1854, and upon the numbers of the population enumerated at the two censuses of 1841 and 1851, possess claims for confidence which cannot be urged in favour of any other life-tables. They fairly represent the average probability of living, and the average mortality in England and Wales in all classes and in all localities. When it is considered, however, that those wishing to insure their lives are for the most part of the middle and upper classes, living under infinitely more favourable social and sanitary conditions than do the large majority of the population, it is evidently unfair to base the calculation of the life-assurance premiums for the upper classes upon the rate of mortality in the entire population. Indeed, the numbers of the upper classes bear so infinitely small a proportion to that of the labouring classes, that the National English Life-Table may almost be called a Labouring Class English Life-Table; and the same may be said of all general tables.

Dr. William Farr has from time to time published, in the Registrar-General's Reports, life-tables for a few of the large towns, and also a "Healthy District Life-Table"; but all these have of necessity been general tables, whereas the "Upper Class Life-Table" now before us appears to supply a great want in this direction. It not only supplies the necessary information for ascertaining what the assuring class ought to pay for life-assurance, but shows what the national death-rate would be if the conditions under which the mass of the population live could be assimilated to those of the middle and upper classes.

Previous to the publication of the "Upper Class Tables", two series of class-tables had been prepared. The "Clergy Children (1830) Tables", arranged by Mr. Ansell, sen., Actuary of the Atlas Assurance Company, related only to from one to two thousand children of clergymen, and did not extend beyond the early periods of life. The tables relating to "Peerage Families" were calculated jointly by Mr. A. H. Bailey, Actuary of the London Assurance Corporation, and Mr. A. Day, of the Scottish Widows' Fund Assurance Society, in 1861, from the records of the British Peerage between the years 1800 and 1855, and embrace the vital statistics of 7,473 persons. The basis for each of these series of tables was much smaller and of a more exclusive character than that upon which the "Upper Class Tables" have been constructed.

Mr. Charles Ansell, jun., explains in his preface that the inquiry as to the rate of mortality prevailing among children in the upper and professional classes was undertaken in the early part of 1871, with a view to afford reliable data for the construction of a more extended plan of educational and other endowments than had previously been attempted. Applications, in the form of a lithographed letter, were "addressed to members of the clerical, medical, and legal professions, and to a large number of other gentlemen and noblemen, in England and Wales", stating the object of the inquiry, and asking for certain facts relating to the births, marriages, and deaths in their families. A very considerable proportion of those to whom applications were sent supplied the required information, and the result was a complete return of the particulars relating to 49,099 children born, of whom 1,059, or rather more than 2 per cent., were still-born. The "Upper Class Life-Tables" have been constructed upon the observed facts relating to the remaining 48,040 children born alive, of whom 24,640 were males, and 23,400 females, or rather more than 105 males to each 100 females. In proof that these statistics may be taken as fairly and generally representative of the entire middle and upper class, it may be stated that, of the children above mentioned, 16,981 were children of clergymen, 5,710 of legal practitioners, 6,477 of medical men, and 19,931 members of the aristocracy, bankers, merchants, manufacturers, etc.

The basis of observation for these "Upper Class Tables" is thus considerably larger than that of either the "Peerage" or "Clergy Children", which naturally invests them with a higher claim for reliability. The "Upper Class" experience shows a mortality rather higher than that of the "Peerage", and rather lower than the "Clergy" Tables. The "Upper Class" mortality is, however, far below that calculated by the "English", "Carlisle", or, indeed, any other general tables.

Space will not admit of an elaborate comparison at different ages of the "Upper Class" mortality with the national mortality as set forth in the "English Life-Tables". A few figures will, however, be desirable to show how remarkable the difference is. In extreme infancy, that is in the first year of age, of 100,000 children born, 8,045 die, according to the Upper Class; and 14,949 according to the English Life-Table. In the next period of childhood, from one to five years of age, of the survivors of the same 100,000 children born, 4,684 die among the upper classes, and so many as 11,369 in the general population. During the remainder of childhood, the difference is not so marked; between 5 and 20 years, the deaths by the Upper Class Table are 6,547, against 7,407. Among upper class adults, 12,552 die between 20 and 40 years of age; and 14,774 between 40 and 60 years; the corresponding numbers at these groups of ages, according to the English Life-Table, are 12,417 and 16,876, respectively. In the later groups of ages, the number of deaths, according to the two tables, do not, however, fairly represent the mortality, because of the 100,000 children with which we started in each class, the proportional number of survivors, exposed to risk at those ages, among the upper class so far exceeds that among the general population. The annual rate of mortality per 1,000 among infants under one year of age, appears to be but 80 among the upper classes, against 166 according to the National English Life-Table; among children, aged between 1 and 5 years, the difference is still more remarkable, the rates being 13 and 37 per 1,000, respectively. Between 5 and 20 years of age, the rates of mortality are 5 and 7 per 1,000; 8 and 10 per 1,000 between 20 and 40, and 12 and 18, respectively, between 40 and 60 years. The "Upper Class" Tables are not completed for the last period of life, from 60 years until the whole of the 100,000 children have died out, so in this group of ages a satisfactory comparison of the rates of mortality is not available; but, assuming a similar reduction of mortality to prevail among "upper class" elderly persons, compared with those in the general population, as among those at other groups of ages, it may be estimated that the mean age at death in the upper classes, of a given number born, is about 55 years, against 41 years in the general English population of all classes. Looked at from another point of view, of 100,000 children born alive among the middle and upper classes, 53,398 survive to reach the age of 60 years; whereas, of the same number born in the general population, only 36,983 survive to that age.

It may readily be conceived what a vast reduction to the general death-rate of England and Wales would be effected, if, by any social reformation, the lives of the working and lower classes could be raised to the standard of those of the middle and upper classes. According to the English Life-Table, the average annual rate of mortality among children and adults under 60 years of age is 17.65 per 1,000, but the Upper Class Tables make it only 10.46 per 1,000. During the year 1873, in England and Wales, 368,179 persons died at those ages, equal to a rate of 17.03 per 1,000 of the estimated number living at those ages; but, if the rate of mortality had not exceeded the "Upper Class" rate, namely, 10.46 per 1,000, only 226,049 of those persons would have died. It follows, therefore, that, during this one year, in England and Wales, 142,130 persons fell a sacrifice to the unfavourable sanitary and social conditions under which the masses of the population pass their existence, compared with the conditions under which the upper classes live. This calculation takes no account of the excessive loss of life among persons aged upwards of 60 years, probably as large proportionally, but which the present series of tables does not afford the means for estimating.

In conclusion, it will only be possible, on the present occasion, briefly to notice the importance of these tables from one or two other points of view. The social effect of the present condition of life among the majority of our population, naturally suggests the problem, how is a reformation to be effected, and, if this reformation have already dawned, is its rise and progress proceeding at a satisfactory rate? To the health officer and vital statistician, the facts brought to light by this series of tables is of the first importance. It is no revelation to find that the mortality among the well-to-do classes is lower than among the labouring classes, but few will have been prepared to find the difference so wide. The relative proportions of the numbers belonging to these classes in a population is evidently an element which should not be overlooked in any careful investigation of vital statistics, although there are other causes at work affecting death-rates in fashionable neighbourhoods of large towns, such as the large proportion of domestic servants, which complicate the difficulties of such investigations. Lastly, it is of no little importance to middle and upper class life insurers to know that their premiums are charged in accordance with a set of tables which shows a mortality in excess by nearly 70 per cent. of the mortality to which they are liable. In really mutual offices, the unnecessarily high premiums charged are, to a great extent, returned in the shape of bonuses, but in a large number of offices a considerable proportion of the huge profits upon insurance goes into the pockets of shareholders, and tends to encourage lavish expenditure in a variety of ways. Unnecessarily high premiums, moreover, undoubtedly act as a deterrent, preventing the more rapid spread of insurance.

From whatever point of view these "Upper Class" Tables are regarded, their value and importance cannot well be overrated, and public gratitude is due to the National Life Assurance Company and their Actuary for their preparation and publication.

POISONING BY SULPHATE OF COPPER.

THE rarity of cases of poisoning by sulphate of copper has induced the editor of *La France Médicale* of September 16th to publish, in a collected form, the principal evidence in the case of Moreau, the herbalist, lately condemned to death in Paris for having poisoned two wives with that substance.

The following extracts from the report of Dr. Bergeron, one of the medical witnesses, are of sufficient interest to warrant their reproduction. It appears that it was believed that Moreau's first wife had died from ulcerous disease of the stomach. She was not *enceinte;* her death, therefore, could not be attributed to the obstinate vomitings of pregnancy. She was thirty-three years of age, and when Dr. Leroy des Barres saw her for the first time, on July 27th, 1873, he found her pale, thin, and anxious-looking. She often had cramps of the stomach, with glairy mucous vomitings; she vomited nearly all her food, and complained of violent pains at the pit of the stomach. When Dr. Bergeron, in conjunction with his coadjutors, made the *post mortem* examination, they were struck by the remarkable state of preservation in which they found the body, although the woman had been dead about seven months. They were therefore enabled to open the stomach, and to ascertain that there was neither perforation nor cancer of that organ, to which an attempt had been made to attribute her death.

Dr. Rey attended Moreau's second wife during her illness in conjunction with Dr. Pleisch. She had complained of incessant vomiting, pains in her limbs, and failure of eyesight; and died of gradual exhaustion. Her death was asserted to be due to diphtheritic angina; Dr. Bergeron and his colleagues, however, opened the larynx and pharynx, and could not find a trace of croupal exudation, nor was there any sign of cancerous affection of the throat.

The analysis of the reports given by the medical men who attended Moreau's wives proves that death was not due either to an affection of the stomach or to diphtheritic angina, as asserted; but that they succumbed to exhaustion, produced by incessant vomitings for two or three weeks. The symptoms observed resembled those described by writers on the subject as characteristic of poisoning by salts of copper The ingestion of salts of copper gives rise to epigastric pains, and especially to copious and continuous vomitings. Sulphate of copper, in small doses, is one of the most potent emetics; then supervene colics, nervous disturbances, with slow fever and gradual emaciation. The symptoms observed in the cases of Moreau's wives faithfully correspond with those observed in poisoning by copper. Everything noted, even to the swelling of the tonsils, and the pharynx, observed in the case of the second wife, can thus be explained. In fact, sulphate of copper acts as a caustic; if reduced to a bluish-white powder, and mixed with food at the time it is swallowed, it might act as a local irritant.

M. Lhote, analytical chemist at the Institution of the Arts et Metiers, deposed that he made two series of experiments in this case. Having received the organs in three jars, he, in the first place, ascertained the state of preservation in which they were; he then sought for traces of organic poison, but found none. He then employed the three ordinary tests for mineral poisons, and this proceeding resulted in the discovery of sulphate of copper, which he sought and found in the liver and in the kidneys; a result generally met with in cases of poisoning by copper. The results were identical after each of the three operations, M. Lhote having found quantities of copper, which he placed on an iron plate. In a fourth part of the organs removed from the two women, he found thirty *milligrammes* in the first wife, and twenty-one in the second. M. Lhote also made experiments on two dogs poisoned with copper.

Dr. Bergeron and his colleagues were so much interested in the much-discussed question as to the normal presence of copper in the animal organism, that they made experiments on fourteen dead subjects. They found only an infinitesimal proportion of copper—never exceeding one *milligramme* (.015 grain); whilst the liver of one of Moreau's wives yielded at least twenty times as much. They obtained from animals which had ingested small doses of salts of copper during three weeks, about thirty *centigrammes* (four grains and a half) of copper—a quantity corresponding to the amount found in the bodies of the two women. One of the samples of earth collected from the graves contained traces of copper; but it was impossible that it could have reached the body, for the coffin was in too good a state of preservation. It was also quite impossible that there should have been any accumulation of copper in the liver or kidneys, for the stomach and intestines did not contain any trace of it.

It was quite clear that the death of the two women was not due to natural causes; they both died after about the same term of illness, exhausted by incessant vomitings, and in consequence of the quantity of copper found in their organs. The result of the report was the condemnation of the accused, Pierre Moreau, to death, without the usual rider of "extenuating circumstances".

CO-OPERATIVE DISPENSARIES.

UNDER this title, the *Times* of the 24th instant, devoted a column to an account of the comprehensive scheme of provident dispensaries which is about to be started in Manchester and Salford. This scheme has been under consideration for some time past, and we have, as occasion required, kept our readers informed of its progress and of the difficulties which it has encountered. For some months, we have heard nothing of it; but it is evident that during all this time its promoters have been elaborating the details, and now the moment has arrived for setting it in operation. Accordingly, the reasons which have made some alteration in the mode of administering medical relief necessary are set forth, the machinery is described and explained, and the public are invited to aid in carrying out this great reform by subscribing to the guarantee fund. The following extracts from the *Times* will give a clear view of the plan as it now stands.

The application of the co-operative principle to the medical attendance of the poor has been often discussed and has been partially tried, but never, perhaps, submitted to an experiment so complete as is about to be made in Manchester. An influential body of gentlemen have obtained by subscription a guarantee of expenses for a three years' trial. They have enlisted aid from the free hospitals and from the medical profession outside, and it remains to secure the co-operation of those in whose interest the scheme is projected. In a community like that of Manchester there are, of course, thousands of persons too poor to pay doctors' bills on the recognised scale of charges. At the same time, the abuses of the medical charities of that city are not unlike those which have been so long acknowledged in London. The problem, therefore, is to afford a substitute which shall place medical and surgical skill of the highest order at the command of the needy on terms that shall be free from reproach, and yet fairly within their means. At present, an enormous proportion of the recipients of medical charity are in a position that is worse than pauperism, since it rests on false pretences. They have accustomed themselves to receive in charity what many of them should pay for with ease, and many more with a little effort. If the plan now proposed should be successful, the whole of these unduly dependent classes would become independent shareholders in provident dispensaries. These establishments will be set up in different districts of the city, according to a systematic division. All the poorer inhabitants of a district who are not legally paupers may then attach themselves to its dispensary on payment of the smallest conceivable subscription, which they will pay in health and in sickness alike, but which will entitle them to attendance in sickness without any extra charge. They may choose their attendant for themselves from among the physicians and surgeons who connect themselves with the dispensary, and of whom, it is stated, there will be a considerable number at the outset. . . . .

For the purposes of the new association, Manchester and Salford have been divided into six districts, in each of which a provident dispensary will be established. One of these will be opened in a few days, and buildings or sites have been secured for the others. Working men who believe themselves to be unable to pay a doctor in the ordinary course, or wish to avoid the burden of occasional heavy bills for medicine and attendance, are called upon with their families to become subscribers to the dispensary of the district in which they reside by paying a weekly item of one penny per member. The case of large families, in which this rate of subscription frequently repeated might become oppressive, is compromised by a provision that the subscription for all children under thirteen years of age in any one family, is not to exceed twopence per week. Each enrolled member becomes entitled to receive medical attendance and medicine at the dispensary or at his own home, free of any charge. He retains, as already stated, the privilege of choosing his family doctor from the large list of medical men who have consented to co-operate with the promoters of the provident system. An entrance fee of sixpence for an individual or one shilling for a family will be required. The rules further provide that: "Any applicant for membership actually suffering from illness shall only be admitted upon payment of an entrance fee of five shillings. The whole of the family of the applicant must also join at the same time and pay one month's subscription in advance. Any member shall be considered sick, and pay accordingly, if he apply for medical aid within fourteen days of membership. Female members may be attended in their confinements by one of the medical officers upon payment of fifteeen shillings, or by the midwife upon payment of seven shillings and sixpence, such payments to be completed one month before the expected confinement, and if in instalments in sums of not less than two shillings and sixpence each."

The subsidiary advantages of the system are stated as follows:

"Members can be attended by a properly qualified dentist. Members suffering from illness requiring hospital treatment, shall be entitled to a recommendation to the hospital most suited to the requirements of their case. Members removing to another district may be transferred without charge to the provident dispensary of the district to which they may have removed."

During its three years' probation the scheme will be backed by a guarantee fund of £1,000 a year, which to within a small amount has already been subscribed.

The founders of the Provident Dispensary Association hope that their institutions may eventually become self-supporting, though at first indebted somewhat to the subscriptions of honorary members. But even should the ideal of independence not be so fully attained, the partial help received would be a considerable upward step from the demoralising reliance upon entirely gratuitous relief.

We observe that it is proposed to give the members a voice in the management. We shall watch with interest the success of this plan; indeed, the whole system will demand our careful attention, for, if it be once found to succeed in such a city as Manchester, there can be no doubt that a great impetus will be given to the multiplication and organisation of provident medical institutions in the metropolis and all over the country.

DR. DRASCHE has been appointed Extraordinary Professor of Epidemiology in the University of Vienna.

AN outbreak of trichinosis, from the use of infected pork, has occurred in Schöningen, affecting at least fifty persons.

PERMISSION has been given for the formation of a School of Dental Surgery in Vienna, with a staff of four lecturers.

DR. WERNICH, *privat-docent* in Berlin, has been appointed by the Japanese Government teacher of Clinical Medicine in the Medico-Chirurgical School at Jeddo.

A DEATH from hydrophobia occurred on the 17th instant. The patient was a little girl aged 10, who had been bitten in the cheek and shoulder in March last in the Camberwell Road, when twelve persons were bitten by a mad dog.

MR. RAMSAY WRIGHT, assistant to the Professor of Natural History in the University of Edinburgh, has been appointed to the chair of Natural History in University College, Toronto, in the place of Dr. Alleyne Nicholson.

SCARLET FEVER IN VIENNA.

THE health-report of Vienna for the week ending September 16th showed a marked increase in the mortality among children from scarlatina. The disease is also reported to have broken out in many places in the low lands. Diphtheria is also prevalent, and cases of typhus have become frequent. During the week, there were in Vienna ten deaths from the last named disease, and nine from scarlet fever.

Dr. Christian Bæumler, who was for some years resident in London, and has since been Professor of Materia Medica in Erlangen, has been nominated to the Professorship of Clinical Medicine and Materia Medica at Freiburg.

THE RAILWAY ACCIDENT AT THORPE.

A respected correspondent from Norwich informs us that the general body of sufferers from this accident, now at the Norfolk and Norwich Hospital, are doing well, and that all the cases are at present in a hopeful condition. The private patients under treatment in Norwich and its vicinity are also reported to be doing well. It is found that some of those who were present at the accident are more hurt than they first thought themselves to be; soreness and bruises having developed themselves in parts where scarcely any sensation of injury was at first experienced. It is satisfactory to learn that no more deaths from the effects of this disastrous collision are now thought probable; although, as several scalp-wounds and compound fractures, as well as two or three amputations, are still under treatment, there is as yet no certainty on this point.

DEATH OF MR. BRANSBY FRANCIS OF NORWICH.

We regret to have to announce that Mr. Bransby Francis expired on Sunday evening last, after protracted suffering, from the injuries received in the late collision at Thorpe. He was a traveller in the more forward part of the mail-train; and from the first it was known that these injuries were so severe as to place his life in imminent danger. They consisted of a fracture of the left thigh; of comminuted fracture of three or four ribs on the left side, with emphysema of the neck and of the walls of the chest; and of general nervous shock. His brain and his intellect, however, were unaffected; and, throughout the ten days of his illness, he strove hopefully against his distressing symptoms, although fully conscious of the great peril in which he was placed. He was most kindly and assiduously attended throughout his illness by Mr. Allen, and was also frequently visited by Dr. Eade and Dr. Beverley. Mr. Williams and Dr. Hills also, in the first instance, lent their aid in adjusting the fractures. Mr. Francis, at the time of his death, was fifty-nine years of age. He was born at Beccles in Suffolk, in which town his father, the Rev. Robert John Francis, then resided. He became a pupil of the late well-known surgeon, Mr. W. H. Crowfoot, of that town, and afterwards completed his medical education at Guy's Hospital. He first settled in practice at Lowestoft, but, after a short time, removed to Norwich, becoming a partner, and later on the successor, of Mr. Philips. He long held one or two union appointments, and was also registrar of births and deaths for one of the Norwich districts. Mr. Francis was a fine and portly man, of singularly genial nature, greatly liked by his friends and acquaintances, and highly esteemed by his professional brethren, with all of whom, it is believed, he was on the most friendly terms. He was an excellent botanist, and had also considerable general acquirements as a naturalist. He had been a member of the Norwich Pathological Society from its commencement; and when this was amalgamated with the Norwich Medical Library, in which he always manifested great and special interest, he took a leading part in the necessary arrangements. Of the conjoined Society, now known as the Norwich Medico-Chirurgical Society, he had very recently served the office of President. At the late meeting of the British Medical Association in Norwich, he was the able and active Secretary to the Excursion Committee, and in this difficult capacity displayed great qualities of organisation and business powers. His genial and kindly manner will be fresh in the minds of many to whose entertainment and gratification he largely contributed. His loss, under the painful circumstances, is felt to be a great blow in the city; and he may fairly be said to be universally regretted. He has long been married, but leaves no children. The family of Francis is old and well known in Norfolk. It has furnished several members to the clerical profession; and the father of the deceased, for some years, held the living of Rollesby.

THE PUBLIC HEALTH.

During last week, 5,407 births and 3,383 deaths were registered in London and twenty other large towns of the United Kingdom. The mortality from all causes was at the average rate of 23 deaths annually in every 1,000 persons living. The annual death-rate was 21 per 1,000 in Edinburgh, 26 in Glasgow, and 30 in Dublin. Scarlet fever is fatally prevalent in Dublin. In the eighteen largest English towns, the fatal cases of diarrhœa showed a further marked decline from those returned in recent weeks, and were considerably lower than the numbers in the corresponding weeks of the three years 1871-2-3. The deaths referred to scarlet fever in these towns, however, continue to increase, and were more numerous than in any previous week since the beginning of 1871. Small-pox caused 14 more deaths in Birmingham last week. In London, 2,314 births and 1,242 deaths were registered; the births exceeded by 46, while the deaths were as many as 174 below, the average numbers in the corresponding week of the last ten years. The annual death-rate has been equal to 19 per 1,000 in each of the four past weeks. The 1,242 deaths included 6 from measles, 105 from scarlet fever, 3 from diphtheria, 17 from whooping-cough, 30 from different forms of fever, 70 from diarrhœa, and not one from small-pox. The deaths from each of these diseases, except scarlet fever, were considerably below the corrected average. The 105 fatal cases of scarlet fever showed a further increase upon the numbers in recent weeks, and exceeded the corrected weekly average by 33; no fewer than 51 were returned in the East group of districts. Scarlet fever also showed a fatal prevalence last week in Kensington and Hackney subdistricts. One of the deaths registered during the week at the Newington Workhouse was of a servant whose age was stated to be 103 years. The death of a gentleman on the 12th instant was referred to "heart-disease, accelerated by taking chloral hydrate". The daughter of a carpenter, aged 7 years, died in Guy's Hospital from hydrophobia. The mean temperature of the air last week at Greenwich was 55.4 deg., and 1.4 deg. below the average for the corresponding week in fifty years. No rain was measured during the week.

THE PLAGUE IN NORTH AFRICA.

We learn from a correspondent writing under date September 18th, that the town of Benghazi continues perfectly healthy. Fresh instances of the so-called plague have shown themselves in several encampments to the eastward of that place, but none within sixty miles. With these exceptions, the disease appears to dying out in the country. [In a notice on the subject in the Journal of August 22nd, the word Marah should have been Marsh or Merj.]

ENLARGEMENT OF THE LONDON HOSPITAL.

At a cost of £30,000 the Governors of the London Hospital, Whitechapel Road, are at present engaged in carrying out an extensive enlargement of that building, which, when completed, will greatly increase its present accommodation. In aid of this object, the Grocers' Company have presented the authorities with a donation of £20,000, to be expended in the erection of a new wing to be called "The Grocers' Wing". This wing is from the design of Mr. Charles Barry, and has a frontage of one hundred and twenty feet and a depth of forty feet, each floor being detached by a wide lobby. The building will be fireproof throughout, supplied with hydrants and every other necessary on each floor, and will, when completed, afford bed-accommodation to two hundred additional patients. Adjoining this wing, and fronting East Mount Street, an extensive *post mortem* room and mortuary, surmounted by a ventilating shaft and water-tower, is being constructed at a cost of £10,000, and will be fitted up with every modern improvement. The mortuary is "catacombed" all round, each niche to hold one coffin, and to close with an iron door, to which a slate is affixed, to bear the name, etc., of the occupant. A small room has, in deference to the wishes of the coroner for the East End, been constructed, and from the outside of this, by looking through a glass-covered partition, the coroner and jury will be able to view the body on which an inquest is being held. The entire building, when completed, will cover 9,800 superficial feet, and the works are being rapidly pushed towards completion under the personal supervision of Mr. J. A. Thornhill, Surveyor to the Governors of the Hospital.

REPORT ON THE CHOLERA IN MUNICH.

DURING the epidemic of cholera in Munich, in 1873-4, the police authorities collected an abundant supply of statistical material, in order to obtain starting facts for researches in the spread of the disease, and the means of resisting it. The following subjects are comprised in the materials referred to: 1. An enumeration of all streets and places in which no cases of cholera occurred, and a statement of the condition of their sewerage; 2. A sufficiently accurate statement of the daily number of cases and deaths; 3. A summary of the cases of disease and death, arranged according to the fourteen police districts of the city; together with a statement whether the cases observed in the summer epidemic (June 26 to November 16, 1873), or in the winter epidemic (November 27, 1873, to April 28, 1874); 4. An enumeration of the cases of disease and death, arranged according to houses and streets, with special notice of the condition of the population and of the sewerage, and of the time at which the disease occurred; 5. An alphabetical index of all the streets and places where cholera occurred, with various details. Among the facts ascertained is the interesting one that, of the 400 streets of Munich, 122 had not a single case of cholera; and that of these 122, 93 are without drainage. The total number of cases was 3,040 of which 1,466 were fatal.

FUNERAL OF A LADY NURSE.

ON Saturday last, the remains of Miss Louisa Eliza C. Coles, the lady superintendent of the British Nursing Association, and of the nursery departments of the Royal Free Hospital, were interred in Highgate Cemetery. Amongst the mourners were General Sir Arthur Lawrence, K.C.B., Major-General Eardley Wilmot, Major Elliott, Sir Kingsmill Key, Mr. Hart, Mr. F. J. Gant, Mr. J. D. Hill, and other gentlemen connected with the hospital and association. The line of route was thronged by persons of both sexes who had been nursed under the supervision of the deceased.

PROPOSED MEMORIAL OF THE LATE DR. ANSTIE.

A LARGE and influential meeting of the professional and private friends of the late Dr. Anstie was held, on Wednesday evening last, at the house of Dr. George Johnson, in Savile Row, for the purpose of taking steps to raise a fund to be applied in perpetuation of Dr. Anstie's memory, and in recognition of his public and professional services. Dr. George Johnson presided, and among those present were Drs. Andrew Clark, Sibson, Murchison, Burdon Sanderson, W. Playfair, Liveing, Duffin, Douglas Powell, Wharton Hood, Sturges, and Glover, Messrs. Macmillan, J. S. Storr, T. H. Hills, John Wood, Henry Smith, Christopher Heath, Henry Power, Bond, Netten Radcliffe, Brudenell Carter, and many others. Letters from many eminent professional men expressive of sympathy with the object proposed and of regret at unavoidable absence, were read to the meeting; and then Dr. Burdon Sanderson moved, and Dr. Glover seconded, a resolution—"That, considering the labours of the late Dr. Anstie for the promotion of science, and the circumstances of his untimely death, it is desirable that some permanent memorial of his career should be established." In speaking to this resolution, it was pointed out that Dr. Anstie's widow and three young children were but slenderly provided for, and hence that his only son would probably be unable to obtain the complete education which his father, if his life had been spared, had intended to secure for him. It was felt that the proposed memorial might fittingly take the form of a fund to be devoted to this object, and it was hoped that such an application of money might not be unacceptable to his family, and might be received by them as a fitting tribute to the estimation in which Dr. Anstie was held. By subsequent resolutions, a large committee was appointed to carry out the objects of the meeting, and Mr. J. S. Storr, of 26, King Street, Covent Garden, was appointed treasurer, and Mr. Brudenell Carter and Dr. Wharton Hood were appointed joint honorary secretaries. An executive committee was also nominated; and an opinion was expressed that the circumstances of Dr. Anstie's death, in the discharge of his duty, as well as much of the work which he had done during life to ameliorate the condition of the poor, were sufficient to justify an appeal to the general public as well as to his own profession. The meeting terminated with a vote of thanks to the chairman.

DEATH-RATE OF VIENNA IN 1873.

THE official report of the death-rate of Vienna shows that, in 1873, there died in that city 24,701 persons, including 2,427 who were not residents of the city when their illness commenced. The number of deaths (22,274) among the resident population of the city was thus just the same as in 1872 (22,281), notwithstanding that, in the first half of 1873, small-pox was still prevalent; while, in the latter half, there was an epidemic of cholera. The rate of mortality per thousand, in 1873, was somewhat lower than in the previous year; the numbers being respectively 33.9 and 34.6. During the years 1868 to 1872, however, the average death-rate was 30.5; so that there had thus been an increase of 3.4 in the thousand. The high rate of mortality in 1873 is to be ascribed to the prevalence of cholera in the latter half of the year, which caused 43.4 deaths in each 10,000 of the inhabitants.

FEMALE ARMY SURGEONS.

THE *Allgemeine Medicinische Central Zeitung* reports that the chief committee in St. Petersburg of the Association for the Care of the Sick and Wounded in War has lately decided by a majority in favour of a project for admitting ladies to practise as army surgeons in the field and in stationary military hospitals. To carry out this object, the committee propose that in every town in Russia where there is an university—as Kasan, Charkow, Odessa, Kiew, Warsaw, Dorpat, St. Petersburg, and Moscow—courses of instruction for female army surgeons (*Feldscheererinnen*) shall be established in the medical faculty, in the same way as the courses of instruction for midwives. The principal committee has sent circulars to the branch committees in the university towns, desiring them to communicate with the authorities of the universities with a view to carrying out the plan.

SCOTLAND.

THE District Board of Lunacy for Mid-Lothian and Peeblesshire, having found their existing lunatic asylum to be inadequate to their requirements, have erected a very handsome building about two miles from Roslin. The building, which is almost completed, will be fitted with all the modern appliances to ensure the health and comfort of the inhabitants. The estimated cost is about £25,000.

THE LORD RECTORSHIP OF ST. ANDREW'S UNIVERSITY.

A MOVEMENT is on foot among the students of the University with the object of electing Mr. Darwin to the Rectorial Chair in the room of Lord Neaves, who retires in November. At the last election, a large section of the students supported the election of a scientific man in the person of Professor Huxley, and as he lost his election by three votes only, the Darwinians are encouraged to prosecute the candidature of their nominee. The election will take place on the fourth Thursday of November.

IRELAND.

A MURDER by a lunatic, on another inmate of the Omagh Lunatic Asylum, county Tyrone, has lately taken place. The perpetrator of the deed, believing the deceased to be the devil, beat out his brains with a poker. An inquest will be held, but at present no blame seems attributable to the officials of the institution.

DEATH OF DR. ARTHUR JACOB.

WE have received with regret the intelligence of the death of Dr. A. Jacob. Three times President, and for a quarter of a century Councillor of the Royal College of Surgeons in Ireland, Dr. Jacob passed a long life of usefulness, which terminated from sheer old age, without any suffering, at the age of eighty-four, on Monday last, the 21st inst. Dr. Jacob was for many years the proprietor and editor of the *Dublin Medical Press*, in which several of his contributions on Ophthalmic Surgery were published. He was a successful teacher of anatomy, and an accomplished ophthalmologist. Well versed in the science and practice of this department of his profession, by his original investigations he advanced it to a point it had not until his time reached in this country; and was distinguished by his success in giving a scientific character to ophthalmological work early in this century, when it was a branch of surgery much neglected, and somewhat slightingly treated by the heads of the profession.

THE PUBLIC HEALTH ACT.

THE new Public Health Act is not received with universal satisfaction in Ireland. The Nenagh, County Tipperary, Board of Guardians had the subject brought before them at a late meeting. The Local Government Board directed the guardians by sealed order to constitute themselves a sanitary authority under the new Act. Thereupon considerable discussion ensued. Several guardians denounced the measure as mere red-tapeism, and protested against the additional expense thrown on ratepayers by the operation of the new Act. Ultimately the guardians decided on holding their first meeting under the Act on the first Thursday in October.

FEVER IN THURLES.

FEVER is still prevalent in this town, no fewer than twenty additional cases having been admitted into the Workhouse Hospital during last week. It is stated that the cause of the fever, which is of the typhoid kind, is owing to the unsanitary condition of the district, and to the impurity of the water supplied to the inhabitants.

SANITARY CONDITION OF DROGHEDA.

THE report of the Local Government Board's Inspector, Mr. O'Brien, made last spring, relative to this matter, having been ignored, the Corporation lately engaged Dr. Cameron, of Dublin, to analyse the water used in this town, who found, on examination, that, out of ten samples supplied to him, nearly all were frightfully impure, and almost all contained sewage. This state of matters sufficiently explains the constant prevalence of typhoid and zymotic diseases in Drogheda; and, as under the recent Sanitary Act active measures can at once be taken to prevent such a disgraceful condition of things from existing any longer, it is to be hoped that the authorities will at once interfere.

HEALTH OF DUBLIN.

DURING last week, the births registered in Dublin amounted to 183, and the deaths to 180; and the deaths represented an annual mortality of 30 in every 1000 of the population by the census of 1871. Zymotic diseases proved fatal in 62 instances, and of these deaths 34 were ascribed to scarlet fever, exactly double the number registered during the previous week, and the greatest mortality from this disease in any week since the Registration Act came into operation in the year 1864. In the Belfast district, 4 deaths resulted from small-pox, and 19 from scarlet fever.

THE PUBLIC HEALTH (IRELAND) ACT.

THE Irish Local Government Board have issued three orders under this Act. The first applies to rural sanitary districts consisting of entire unions; the second to rural sanitary districts consisting of parts of unions of which other parts are urban sanitary districts; the third applies to urban sanitary districts, excepting the districts of Dublin, Belfast, Cork, and Limerick, which will be dealt with by special orders. The three orders are almost identical, and are of a very general nature. They direct what officers shall be appointed, and define the duties of these officers. The officers and their duties are as follows. The dispensary medical officers shall be sanitary officers, each for his own district as declared by section 10 of the Act. In addition to the sanitary officer, the orders direct that sanitary sub-officers shall be appointed by such authorities; these sanitary sub-officers will be inspectors of nuisances. There shall also be appointed by each authority a consulting sanitary officer. There is nothing stated in the orders about the appointment of superintendent medical officers of health provided for in the Act. Dispensing medical officers and medical officers of the workhouses are declared eligible for the office of consulting sanitary officer. An executive sanitary officer is also to be provided who may be the clerk of the union or the clerk of the urban authorities. We shall postpone our comment upon these orders, until the institution of the sanitary machinery under the Act is completed by the issue of the orders for the four complete boards. On the whole, the orders seem to be as good as can be expected under the present confused state of sanitary and local government law. As the case may be, the duties assigned to these officers are denoted under two heads—inspectorial and executive.

I. *Inspectorial Duties.*—1. Every sanitary sub-officer who shall observe or be informed of any matter demanding, in his opinion, attention from the sanitary officer of the dispensary district in which he has discovered the same, shall notify it forthwith to the sanitary officer in writing, specifying the nature of the case. 2. Every sanitary officer who shall become cognisant of any matter demanding his attention shall, as soon as conveniently may be visit the locality, and if, after due inspection he finds such matter to involve danger to public health, he shall report thereon to the board of guardians, showing the source from which he received the information, and the date thereof, and the date of his visit of inspection; he shall also give a sufficient description of the nature of the case, and the remedy which he recommends to be adopted.

II. *Executive Duties.*—1. The duty of the Executive Sanitary Officer shall be to attend every meeting of the guardians acting as a Sanitary Authority, and to take their directions from time to time on the sanitary business of the Board, and on the reports of the sanitary officers, and all proceedings arising thereon, and to see that the same are carried out and brought to a conclusion where practicable, in pursuance of the orders of the board. 2. Every sanitary officer and sub-officer shall, on receiving directions from the executive sanitary officer, attend and assist in all proceedings in which his attendance or assistance may be required. 3. The duty of the consulting sanitary officer shall be to attend meetings of the guardians acting as sanitary authority, whenever required to do so, and to advise them on all matters and proceedings requiring medical knowledge and advice in the administration of the sanitary laws. 4. The proceedings of the board of guardians acting as the sanitary authority shall be recorded in the same manner as the minutes of the proceedings of the board under the Poor-law and Medical Charities Acts, and a copy of such record shall be annexed to the ordinary minutes of proceedings of the board of guardians, and shall be transmitted to the Local Government Board by the clerk of the union with such last-mentioned minutes.

III. *Statistics of Disease.*—It shall be the duty of the consulting sanitary officer and of the sanitary officers to furnish from time to time to the Local Government Board such statistical returns of sickness and disease in the workhouse and its hospitals, and in the dispensary districts, as shall from time to time be required from them respectively.

DUBLIN HOSPITAL SUNDAY.

A COMMITTEE has been got up by a few individuals to oppose the Dublin Hospital Sunday movement. The persons promoting this opposition seem not to have the general welfare of the sick poor at heart, so much as the glorification of themselves and the particular institutions with which they happen to be connected. In spite of the opponents, the movement has received a very large measure of support; and ninety-eight clergyman have promised sermons in aid of the fund. A considerable number of others have given the movement a very warm support, and will probably be able, if not this, at furthest next year, to give it their substantial aid. The Sunday selected is the 15th of November.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR ADMISSION INTO THE ARMY AND NAVY MEDICAL SERVICES.

THE ARMY MEDICAL SERVICE.

THE following are the present regulations affecting candidates for commissions in the Army Medical Service. 1. Every candidate desirous of presenting himself for admission to the Army Medical Service must be unmarried, and not under 21 nor over 28 years of age. He must produce a certificate from the district registrar, in which the date of birth is stated; or if this cannot be obtained, an affidavit from one of the parents or other near relative who can attest the date of birth, will be accepted. He must also produce a certificate of moral character from the parochial minister, if possible. 2. The candidate must make a declaration that his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate. His physical fitness will be determined by a board of medical officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed. The board must also certify that he is free from organic or other disease, and from constitutional weakness or other disability likely to unfit him for military service in any climate. 3. The candidate must possess two diplomas or licences—one to practise medicine, and the other surgery in Great Britain and Ireland, and must be registered under the Medical Act in force at the time of his appointment. 4. Certificates of registration, character, and age must accompany the declaration when filled up and returned. 5. Candidates will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows. *a.* Anatomy and physiology, 1,000 marks; *b.* Surgery, 1,000 marks; *c.* Medicine, including therapeutics, the diseases of women and children, 1,000 marks; *d.* Chemistry and pharmacy, and a practical knowledge of drugs, 100 marks.—N.B. The examination in medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The eligibility of each candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Examinations will also be held in the following voluntary subjects, for which the maximum number of marks will be: French and German (150 each), 300 marks; Natural Sciences, 300 marks. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The natural sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences. 6. After passing this examination, every candidate will be required to attend one entire course of practical instruction at the Army Medical School on—(1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Military Surgery; (4) Pathology of Diseases and Injuries incident to Military Service. 7. At its conclusion the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of an army medical officer, he will be eligible for a commission as surgeon. 8. During the period of his residence at the Army Medical School, each candidate will receive an allowance of 5s. *per diem* with quarters, or 7s. *per diem* without quarters, to cover all cost of maintenance; and he will be required to provide himself with uniform—viz., the regulation undress uniform of a surgeon, but without the sword. 9. All candidates will be required to conform to such rules of discipline as the Senate may, from time to time, enact.

THE NAVAL MEDICAL SERVICE.

THE following are the present regulations for the examination of candidates for commissions in the Medical Service of the Royal Navy. 1. Every candidate desirous of presenting himself for admission to the Naval Medical Service must be not under 21 nor over 28 years of age. He must produce a certificate from the district registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must also produce a certificate of moral character, signed by a clergyman or a magistrate to whom he has been for some years personally known. 2. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, nor any other imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate. His physical fitness will be determined by a board of medical officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's test-types. He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so. 3. He must be registered under the Medical Act in force at the time of his appointment, as licensed to practise medicine and surgery in Great Britain or Ireland. 4. Certificates of registration, character, and age, must accompany this schedule when filled up and returned. 5. Candidates will be examined by the Examining Board in the following subjects: Anatomy and Physiology; Surgery; Medicine, including Therapeutics and the Diseases of Women and Children; Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.) The eligibility of each candidate for the Naval Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica, also in French and German; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science. 6. After passing this examination, every candidate will be required to attend one entire course of practical instruction in the Medical School at Netley, on (1) Hygiene; (2) Clinical and Naval and Military Medicine; (3) Clinical and Naval and Military Surgery; (4) Pathology of Diseases and Injuries incident to Naval and Military Service. 7. At its conclusion, the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of a naval medical officer, he will be eligible for a commission as surgeon. 8. During the period of his residence at the Netley Medical School, each candidate will receive an allowance of 5s. *per diem* with quarters, or 7s. *per diem* without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform—viz., the regulation undress uniform of a surgeon, but without the sword. 9. All candidates will be required, while at Netley, to conform to such rules of discipline as the Senate may from time to time enact. 10. After completing three years' full-pay service, surgeons will be allowed to be examined for the rank of staff-surgeon, second class; but no surgeon can be promoted to the rank of staff-surgeon, second class, until he shall have served five years, two of which must have been in a ship actually employed at sea.

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

UNIVERSITY OF DUBLIN SCHOOL OF PHYSIC.—Regius Professor of Physic, Dr. W. Stokes, D.C.L., F.R.S.; Regius Professor of Surgery, Dr. R. Adams; University Professor of Anatomy and Surgery, Dr. B. G. M'Dowel; University Professor of Chemistry, Dr. Apjohn, F.R.S.; University Professor of Botany, Dr. E. P. Wright; Professor of Surgery in Trinity College, Dr. E. H. Bennett; University Anatomist, Dr. T. Evelyn Little; Professor of Comparative Anatomy and Zoology, Dr. Macalister; Erasmus Smith's Professor of Natural Philosophy, Rev. John Leslie, M.A.; University Lecturer in Operative Surgery, Dr. R. G. Butcher; University Examiner in Ophthalmic Surgery, Mr. H. Wilson; King's Professor of Institutes of Medicine, Dr. R. Prosser; King's Professor of Practice of Medicine, Dr. W. Moore; King's Professor of Materia Medica and Pharmacy, Dr. Aquilla Smith; King's Professor of Midwifery, Dr. E. B. Sinclair; Professor of Medical Jurisprudence, Dr. R. Travers.

The Winter Session commences on the 1st October, and terminates on the 31st March. Lectures will commence on the 1st November. The Dissecting Room will be opened on the 1st October. The Winter Courses consist of fifty-six Lectures each. Attendance on at least forty-two Lectures in each Course is required. Two Medical scholars are elected annually by the Board of Trinity College, at an Examination held at the end of June. Each Scholarship is worth £20 per annum, and is tenable for two years. The Professors of the School of Physic give three Exhibitions annually, amounting altogether in value to £40. No student can attend any of the Lectures delivered in the School of Physic, or Dissections, who has not complied with the provisions of the School of Physic Act as to Matriculation.

Carmichael School of Medicine.—The following are the courses of lectures.—Winter Session, commencing Monday, November 2. Surgery, Mr. Anthony H. Corley, M., Tu., and W., 12; Practice of Medicine, Dr. Samuel Gordon, Th., F., and S., 12; Anatomy, Mr. Francis B. Kane and Mr. William Thomson, M., W., and F., 1; Physiology, Dr. Reuben J. Harvey and Dr. Gerald F. Yeo, Tu., Th., and S., 1; Midwifery, Dr. W. B. Jennings, M., Tu., and F., 2; Chemistry, Dr. C. R. C. Tichborne, Tu., Th., and S., 2; Ophthalmic Surgery, Mr. C. E. Fitzgerald, Tu., Th., and S., 2. Summer Session, commencing Monday, April 5, 1875.—Materia Medica, Dr. William Frazer, M., W., and F., 12; Botany, Mr. E. B. Blakeley, Tu., Th., and S., 12; Practical Chemistry, Dr. C. R. C. Tichborne, Tu., Th., and S., 1; Forensic Medicine, Mr. G. M. Foy, M., W., and F., 1. The Carmichael (formerly Richmond Hospital) School of Medicine, in which all the courses of lectures required for the different Colleges are delivered, is in the immediate vicinity of the Richmond, Whitworth, and Hardwicke Hospitals, and is connected with these institutions, as well as with Jervis Street Hospital, by its teachers. Certificates of attendance on the lectures delivered in this school are recognised by all the licensing bodies in the United Kingdom.—Class premiums, to the value of £60, on the foundation of the late Richard Carmichael, Esq.; and the Mayne Scholarship, value £15, are awarded at the termination of the session.—Fees, for each course of lectures, £3 3s.; for all the courses of lectures required in order to obtain the diploma of the Dublin College of Surgeons, £66 3s.; a discount, amounting to £9 19s. 6d., is allowed in the case of perpetual pupils. Perpetual Pupils, paying £56 3s. 6d. (either on entrance, or half at the commencement of the first, and the remainder at the commencement of the second session), can attend all Lectures necessary to obtain the license of the Dublin College of Surgeons. For all the lectures required by the Royal College of Surgeons of England, London, £51 9s.; for all the lectures required by the College of Surgeons, Edinburgh, £45 3s. The dissections are superintended by the lecturers and demonstrators who attend at the following hours, to assist the students in the study of Practical Anatomy: 11 to 12 o'clock, Drs. Harvey and Power; 12 to 1, Drs. Thomson and Skerrett; 1 to 2, Drs. Kane and Foy; 2 to 3, Drs. Yeo, and Blakely; 3 to 4, Drs. Power and Auchinleck. During the session, the lecturer on Surgery will give special courses of demonstrations and illustrations in Operative Surgery. Special Classes will be formed for practical instruction in Microscopy and Physiology, and will be personally conducted by the lecturers on Physiology. The Museum of the School comprises a valuable collection of Anatomical and Pathological preparations. There is also an extensive Museum of Materia Medica. For further information respecting the School, apply to Dr. Gerald F. Yeo, 27, Upper Merrion Street, or any of the lecturers.

Catholic University School of Medicine.—The Winter session will commence on October 1, with Practical Anatomy. The Lectures will commence on November 3. Anatomy and Physiology (Human and Comparative), Dr. T. Hayden, and Dr. R. Cryan, daily, except Saturday, 12; Anatomical Demonstrations, Dr. Hayden and Dr. Cryan, daily, except Saturday, 1; Chemistry, Dr. John Campbell, Mondays, Wednesdays, Fridays, 2; Surgery, Mr. Tyrrell, Mondays, Wednesdays, Fridays, 3; Medicine, Dr. R. D. Lyons, Tuesdays, Thursdays, Saturdays, 3; Midwifery, Dr. J. A. Byrne, Tuesdays, Thursdays, Saturdays, 2; Demonstrations in Dissecting Room, Mr. Mr. P. J. Hayes, Dr. C. J. Nixon, Mr. C. Coppinger, Dr. M. Kilgarriff, Dr. C. Gunn, Mr. J. Dillon. *Summer Session.*—Practical Chemistry, Dr. Campbell; Materia Medica, Dr. Quinlan; Medical Jurisprudence, Dr. MacSwiney; Pathology, Dr. Lyons; Botany, Dr. Sigerson; Natural Philosophy, Mr. Hennessy; Logic, Dr. D. B. Dunne. *Prizes.*—At the end of the Winter session. Prizes in each class: the Conolly Medical Exhibition, of the Catholic University, value £20, tenable for one year, and open to the competition of all students, after examination in Physiology, Physiological Anatomy, Chemistry, and Botany; the University Exhibition, value £20, after examination in practice of Medicine, Surgery, and Midwifery; at the end of the Summer Session, the University Gold Medal, value £7, for the best answering in Practical Chemistry, Materia Medica, and Medical Jurisprudence; Prizes in each class. *Fees.*—Each course, £3 3s.; except Dissections, £5 5s. A reduction of one-sixth is made to perpetual pupils paying the entire fees in advance, or in two instalments at the commencement of the first and of the second years. The School is in a central situation, and within a few minutes' walk of the principal Hospitals of the city. It includes a Reading-Room well supplied with Medical books and periodicals, also an extensive and most complete Laboratory, in which students can pursue the study of Practical Chemistry, Materia Medica, and Toxicology. Further particulars may be learned from the Dean of the Faculty of Medicine, Dr. Hayden, 30, Harcourt Street, Dublin; from Dr. Quinlan, 29, Lower Fitzwilliam Street; from any of the other Professors; from the Medical Registrar, Dr. Hayes, 29, Westland Row, or on application at the School.

Ledwich School of Surgery and Medicine.—The Lectures will be delivered by the following teachers. Anatomy, Surgical and Descriptive: Mr. Edward Ledwich, Mr. T. P. Mason, Mr. A. R. Glanville, and Mr. J. E. Kelly, five days, weekly, 1 P.M. Anatomy, Physiological and Pathological: Mr. T. P. Mason, Mr. Edward Ledwich, and Mr. J. E. Kelly, five days weekly, 12 noon. A brief Course of Comparative Anatomy will be delivered during the Winter Session. Surgery: Mr. J. H. Wharton and Dr. J. K. Barton, M. W. F., 11. Medicine: Dr. Arthur W. Foot, Tu. Th. S., 11. Midwifery: Dr. J. Ringland, Tu. Th. S., 2. Chemistry and Natural Philosophy: Dr. C. A. Cameron and Mr. E. Lapper, F.C.S., M. W. F., 2. Practical Chemistry: Dr. Cameron. Materia Medica: Dr. B. F. MacDowell, M. W. F., 11. Botany: Dr. D. Toler T. Maunsell, M. W. F., 12. Forensic Medicine and Hygiene: Dr. R. Travers, M. Tu. Th. S., 12. Anatomical Demonstrations: Mr. T. P. Mason, Mr. E. Ledwich, Mr. A. R. Glanville, Mr. C. H. Robinson, Mr. M. A. Ward, Mr. J. E. Kelly, Mr. S. R. Mason, Mr. A. H. Ringland, Mr. R. D. Purefoy, Mr. R. Rainsford, Mr. F. T. Porter, Mr. H. J. K. Gogarty, Mr. Nixon, daily, in the Anatomical Dissecting Rooms. A Course of Operations to be performed by the Student, under the superintendence of the Lecturer (Subjects, etc., included), £5 : 3. Fee for each Course, £3 : 3. The Dissecting Rooms open on October 1st, 1874. During the Summer Session, to commence in April 1875, the usual Courses will be delivered on Midwifery, Chemistry, Materia Medica, Botany, and Forensic Medicine. There are Endowments in favour of Students, subject to the conditions prescribed by the Founder, in the following departments: Two in Anatomy and Physiology; Two in Minute Anatomy; Two in Practical Anatomy; One in Surgery. The usual Prizes in the other departments will be awarded at the termination of each Session.

This School, which has recently been rebuilt, is in a central situation, and is replete with every convenience. By its teachers, it is connected with six hospitals, five of which are medical and surgical hospitals, and one for midwifery and diseases of women and children.

Apply to Dr. Foot, Pembroke Street; Drs. Ringland, Ledwich, and Mason, Harcourt Street; Mr. Wharton, Upper Merrion Street; or at the School.

Dr. Steevens' Hospital and Medical College.—The Hospital contains 250 beds, and is provided with special wards for the treatment of fever, syphilis, and diseases of females. Visiting Physicians, Dr. W. M. Burke; Visiting Surgeons, Mr. S. G. Wilmot and Mr. C. Fleming; Physicians, Dr. H. Freke, Dr. T. W. Grimshaw; Physician-Accoucheur, Dr. J. Isdell; Surgeons, Mr. W. Colles, Dr. E. Hamilton, Dr. R. Mc Donnell. The hospital is visited at 8.30 P.M.; and clinical instruction is given at 9 A.M. as follows: Mr. Wilmot on Saturdays at 10; Dr. Freke, Monday; Mr. M'Donnell, Tuesday; Mr. Hamilton, Wednesday; Mr. Colles, Thursday; Dr. Grimshaw, Friday; Dr. Isdell, Saturday. Operations are performed on Saturdays at 10. Pathological Demonstrations are given by the Lecturers as opportunity offers. The following lectures are given in the Medical School. Anatomy, Physiology, and Morbid Anatomy, Mr. Hamilton, daily, exc. Sat., 10; Practice of Medicine, Dr. Freke, M. W. F., 11; Surgery, Mr. Colles, Tu. Th. S., 11; Midwifery and Diseases of Women and Children, Dr. Isdell, M. W. F., 12; Chemistry, Dr. Cameron, Tu. Th. S., 12; Descriptive Anatomy, Mr. Swan, daily, except Sat., 1; Dissections superintended by the Lecturers on Anatomy and the Demonstrators, 7 A.M. to 8 P.M. Practical Anatomy and Hospital Attendance commence on the first Monday in October. The Sessional Lectures commence on the first Monday in November. Lectures are also given on Materia Medica by Dr. Grimshaw; on Medical Jurisprudence by Mr. J. F. Pollock; and on Botany by Mr. C. A. Bell. The Reading-Room and Museum are open daily. There is also a Lending Library. Fees: Hospital Practice, 9 months, £9 : 9; 6 months, £7 : 7. Practical Anatomy, £5 : 5. Lectures, each course, £3 : 3. Resident Dressership (6 months), Winter, £21; Summer, £15 : 15. A perpetual fee of 78 guineas, which may be paid in two instalments, entitles the student to attend all the lectures and hospital practice required by the Colleges of Surgeons, Halls, and the public service.

General Examinations will be held at the close of the Session, at which Students are expected to answer, in order to entitle them to Certificates of Attendance. Students who reach a certain standard will be recommended for honours, and will receive Special Certificates. The following prizes are offered. Medical and Surgical Clinical Prizes, each £10. Cusack Medals and Exhibitions, 3rd year, £8; second year, £5; 1st year, £3. For the Clinical Prizes, not less than thirty cases, treated in the Medical or Surgical Wards of the Hospital during the Session, must be sent under cover to the Secretary, on or before the last Saturday in April.

Further particulars may be learned from any of the Professors; from the Resident Surgeon at the Hospital; or from Dr. E. Hamilton, 120, Stephen's Green West.

JERVIS STREET HOSPITAL.—Physicians, Dr. Stephen M. Macswiney, M.R.I.A., Dr. William Martin. Surgeons, Mr. M. Harry Stapleton, Dr. J. Stannus Hughes, Dr. J. K. Forrest, Dr. Anthony H. Corley, Dr. Austin Meldon, Mr. James E. Kelly, Dr. Francis B. Kane. The winter session will commence on November 2. This hospital is in the immediate vicinity of the Catholic University and Carmichael Medical Schools. The surgeons and physicians attend daily from 9 to 11 o'clock. Medical and surgical lectures are delivered in each week, and clinical instruction is given daily by the physicians and surgeons. Operations are performed on Tuesday mornings at 10. Practical Pharmacy is taught under the superintendence of Mr. Kenny, apothecary to the hospital. Resident pupils and dressers are selected from among the most attentive of the pupils, without payment of any additional fee. Two interns are appointed each half year, and are provided with apartments, fuel, etc., free of expense. Special certificates are given to the resident pupils and dressers who have performed their respective duties to the satisfaction of the physicians and surgeons. *Fees.*—For the winter and summer sessions (nine months), £8 8s.; for the winter six months, £6 6s.; for the summer three months, £3 3s.; perpetual pupils, £21, paid on entrance. For further particulars apply to Dr. Kane, 76, Harcourt Street, or to any of the Physicians or Surgeons.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—Physicians: Dr. W. Stokes, D.C.L., F.R.S.; Dr. A. W. Foot. Surgeons: Dr. G. H. Porter, Mr. J. H. Wharton, Mr. P. C. Smyly, Mr. R. Macnamara, Mr. R. P. White, Mr. L. H. Ormsby. Four Clinical Lectures are given weekly, on alternate days. The Physicians and Surgeons visit the Hospital at 9 A.M. The Hospital is capable of containing 120 beds; it has a Dispensary, Lending Library, and Physiological Laboratory attached, and is within a few minutes' walk of the University, the College of Surgeons, and the Ledwick School of Medicine. It contains a ward for Diseases of Children. Prizes are given at the end of the Winter course. The office of Resident Pupil is open to pupils as well as to apprentices. Further information may be obtained of Mr. L. H. Ormsby, 12, Lower Fitzwilliam Street.

MERCER'S HOSPITAL, DUBLIN.—Physician, Dr. Thomas P. Mason; Surgeons, Mr. Edward Ledwich, Mr. E. S. O'Grady, Dr. John Morgan, and Dr. Benjamin F. McDowell. The Hospital is visited daily at 9 A.M. There are Wards for Fever and Contagious Diseases. Dressers are selected from the most attentive of the students. The Dispensary affords ample opportunities for acquiring dexterity in minor Surgery, and a practical knowledge of the diseases of Women and Children. Systematic Clinical Lectures and catechetical instruction will be given. The appointment of Resident Students is open to all perpetual Pupils of the Hospital, through Competitive Examination. The Hospital is in the immediate vicinity of an Obstetrical Hospital, and of four of the principal Medical Schools. Fees—six months, £6 6s.; nine months, £8 8s.; perpetual, £21. Further information can be obtained from any of the Physicians or Surgeons of the Hospital, or from the Registrar, Mr. James Shaw.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—These Hospitals contain 312 beds; 110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases. A Dispensary for out-door patients is attached to the Medical and Surgical Hospitals. There is an extensive Pathological Museum, containing above 4,000 drawings, casts, and preparations, and a Medical and Surgical Lending Library. Two Clinical Lectures are delivered in each week, in addition to Bedside Instruction given daily by the Physicians and Surgeons. There will be a distinct Course of Lectures and Clinical Instruction in Fevers. A course of Practical Instruction in Ophthalmic Surgery will be given. The Hospitals are visited at 9 A.M. by the Physicians and Surgeons. Operations are performed on Wednesday mornings. Eight resident Clinical Clerks are appointed each half-year, and provided with furnished apartments, etc. The Dressers are selected from among the best qualified of the pupils, without additional fee. At the termination of the Session, premiums will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing over 1,000 patients, adjoins these Hospitals. The Carmichael School of Medicine is also in the immediate vicinity of these Hospitals. Consulting-Physician, Sir D. J. Corrigan, Bart., M.D.; Physicians, Dr. J. T. Banks; Dr. B. G. M'Dowel; Dr. S. Gordon; Dr. R. D. Lyons; Assistant-Physician, Dr. Gerald F. Yeo; Consulting-Surgeon, Dr. R. Adams; Surgeons, Mr. W. Stokes, Dr. W. Thomson, Dr. W. T. Stoker; Ophthalmic Surgeon, Mr. C. E. Fitzgerald. Fees: Winter and Summer Session (nine months), £9 9s.; six winter months, £7 7s.; three summer months, £3 3s.; Perpetual Pupils, £25 (paid on entrance). Resident Clinical Clerks, Winter Session, £21; Summer Session, £12 12s., including certificate of attendance.

ST. VINCENT'S HOSPITAL AND DISPENSARY.—The hospital is visited daily at 9 A.M. It is connected (by its medical officers) with three leading medical schools in its immediate vicinity. Medical and Surgical Clinical Lectures will be given three times weekly; operations on Fridays, at 10.30 A.M. At the beginning of each winter and summer session, two resident pupils will be selected by competitive examination. At the end of the winter session, an examination will be held in Clinical Medicine and Surgery, at which a senior and a junior prize will be awarded. A portion of all these examinations will be conducted at the bedside. Physicians, Dr. Francis J. B. Quinlan, Dr. Robert Cryan. Surgeons, Dr. Edward D. Mapother, Dr. William H. O'Leary, M.P. Surgeon Dentist, W. J. Doherty. L.D.S. Apothecary, C. T. Boland. Terms of Attendance.—Winter and summer sessions, £8 8s.; winter session, £6 6s.; summer session, £3 3s.; Perpetual pupils, £21. Practical instruction in compounding medicines will be given. Further particulars may be learned on application to Dr. Quinlan, 29, Lower Fitzwilliam Street; Dr. Mapother, 18, Merrion Square North; Dr. O'Leary, 38, York Street; Dr. Cryan, 54, Rutland Square West: or at the hospital.

SIR PATRICK DUN'S HOSPITAL.—Consulting-Physician, Dr. W. Stokes, D.C.L., F.R.S.; Consulting-Surgeon, Dr. R. Adams; Clinical-Physicians, Dr. W. Moore, Dr. Aquilla Smith, Dr. Prosser: Midwifery-Physician, Dr. E. B. Sinclair; Clinical Surgeons, Dr. B. G. M'Dowel, Dr. E. H. Bennett, Dr. T. E. Little; University Lecturer in Operative Surgery, Dr. R. G. Butcher.

The Physician on duty visits the Wards, with his Class, at 9 A.M., on Mondays, Wednesdays, and Fridays. The Surgeon on duty visits the Wards, with his Class, at 9 A.M., on Tuesdays, Thursdays, and Saturdays. The Hospital Dispensary is open from 9 o'clock to 11 o'clock daily (except Sundays).

The payment of £3 3s. to the Hospital entitles any student to attend the Clinick of the Hospital for twelve months, and the Lectures delivered by the University Lecturer in Operative Surgery.

Students who have taken out the degrees of Bachelor in Medicine or Master in Surgery, in Trinity College, are entitled to attend the Hospital as Perpetual Free Pupils. Clinical Lectures are delivered in the Hospital Theatre, at 10 o'clock, on Mondays, by the Clinical Physician on duty; and on Tuesdays by the Clinical-Surgeon on duty. In addition to the Hospital Fee, the payment of a Fee of £6 6s. is required for the privilege of attending these Lectures. Students of Trinity College desirous of entering for six months' Instruction in Practical Midwifery pay a Fee of £3 3s. Other Students pay, in addition, £3 3s. to the King's Professor, for six months' Practical Instruction. The Governors of the Hospital award Silver Clinical Medals in Medicine and in Surgery to the Students who shall pass the best Examinations on the Medical and Surgical cases treated in the Hospital during the year. The written part of the Examination consists of five Cases recorded by each candidate.

QUEEN'S COLLEGE, BELFAST.—Anatomy and Physiology, Dr. Peter Redfern, M., Tu., W., Th., F., 2. Demonstrations of Anatomy, Dr. J. J. Charles, M., Tu., W., Th., F., 12. Theory and Practice of Medicine, Dr. J. Cuming, M., Tu., W., Th., F., 4. Practice of Surgery, Dr. A. Gordon, M., Tu., W., Th., 1. Materia Medica, Dr. J. S. Reid, M., Tu., W., Th., 4. Midwifery, Dr. R. F. Dill, M., Tu., Th., F., 3 (after May 1). Medical Jurisprudence, Dr. J. F. Hodges, M., Tu., Th., 2 (after May 1). Chemistry, Dr. T. Andrews, M., Tu., W., Th., F., 3. Zoology, Dr. R. O. Cunningham, M., Tu., W., F., 1. Botany, Dr. Cunningham, M., Tu., W., Th., F., 1.

(summer). Fees for course for Medical Jurisprudence, Chemistry, Materia Medica, Medicine, Surgery, Midwifery, and Botany, each £2; reattendance on same course, half fee; Practical Chemistry and Practical Anatomy, first and subsequent courses, each £3; Anatomy and Physiology, first course, £3; subsequent courses, £2. The Charters' Medical Exhibition, value £50, tenable for one year, is annually awarded during ten years, after a special examination in Medicine and Surgery. It is open to any medical student to compete, provided he does not possess either a medical or a surgical qualification. The successful candidate will not be disqualified from holding, at the same time, any other Collegiate distinction. The Exhibition will not be given unless the answering have been of so high an order as to entitle the candidate to hold it on the ground of absolute merit.

Belfast General Hospital.—Physicians, Dr. Purdon, Dr. Smith, Dr. Ross, and Dr. Cuming. Surgeons, Dr. Browne, Dr. Murney, Dr. James Moore, and Dr. John Moore. Four pupils are admitted to residence in hospital, and pay £30 *per annum* for board, etc. *Fees.*—For Clinical Instruction, including hospital fees and 10s. 6d. registration fee at the beginning of each session: First, second, and third winter sessions, each £5 5s.; fourth and afterwards, £1 1s. First, second, and third summer sessions, £2 12s. 6d.; fourth session and afterwards, £2 12s. 6d. Perpetual fee, £10 10s. payable in two instalments. A sum of £400 has been vested in trustees by the widow of Dr. A. G. Malcolm, the interest of which is appropriated as an exhibition, to be competed for annually in May by the students attending this hospital.

Queen's College, Galway.—Anatomy and Physiology, and Practical Anatomy, Dr. Cleland. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Browne. Materia Medica, Dr. J. P. Pye. Medical Jurisprudence, Dr. J. P. Pye. Midwifery and Diseases of Women and Children, Dr. R. Doherty. Chemistry, Dr. T. H. Rowney. Natural Philosophy, Dr. A. H. Curtis. Botany and Zoology, Dr. A. G. Melville. The County Galway Infirmary, Town, and Fever Hospitals are in the immediate vicinity of the Queen's College.

Eight scholarships of the value of £25 each, and exhibitions varying in value from £12 to £16, are appropriated to students pursuing the course for the degree of M.D.

Fees.—Anatomy and Physiology, £3 first session; afterwards, £2. Practical Anatomy and Practical Chemistry, £3 each session; Operative Surgery, £3; other classes, £1 for each course extending over one term only; £2 for each course extending over more than one term; and £1 for each reattendance on the same. The College session is divided into three terms. The first term commences on October 20, 1874, and ends on December 19.

IRISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A meeting of this Association was held on September 9th, at the Hall of the King and Queen's College of Physicians, in Dublin, to consider the Public Health (Ireland) Act, and the position of the Irish poor-law medical officers in respect thereto. Shortly after 4 o'clock, the chair was taken by Sir Dominic Corrigan, Bart., President of the Association.

Dr. Maunsell, Secretary of the Association, read the report. He said that, on comparing the payment of poor-law medical officers in England and in Ireland, he found that, owing to the absence of a dispensary system in England, the districts are not, as they were in Ireland, of a pretty constant area and population; but taking those districts in England where the population was about 7,000, the salaries were higher in England than in Ireland. There was, besides, a special arrangement for extra fees in England, which did not exist in Ireland, and the fee for vaccination was 3s., whilst it was but 1s. in Ireland. In England, also, the medical officer could get his assistant, in most instances, to perform his poor-law duty—a thing which the Irish Local Government Board would not tolerate.

With regard to the Public Health (Ireland) Act, there was no doubt that the duties of the Dispensary Medical Officers would be very largely increased when it came into force; and there was no doubt that the urban and rural authorities would endeavour to get these duties performed as cheaply as possible; and Dr. Maunsell thought that they were right, so far as they could have this important duty done efficiently, for the amount of taxation for poor relief in the United Kingdom was enormous—something like £10,000,000. The cause of the poor-rate in Ireland being low, as compared with England and Scotland (2s. 11¾d. per head, against 6s. 11½d. and 5s. 2¼d.), was the efficiency of the Poor-Law Medical Service in Ireland. This service had hitherto been of a curative character almost entirely; now, however, it would become a preventive service as well, not before it was greatly needed.

With regard to the qualifications of Dispensary Medical Officers in Ireland, they must be the very highest that could be obtained at present. They were not satisfied with their rate of payment at the present time for the duties that they performed under the Medical Charities' Act; and Dr. Maunsell had been asked by a considerable number of them to state it at the meeting. In 1851 the Medical Charities' Act passed, and 800 medical officers were immediately appointed at an average salary of £71 4s. The salary had since been increased to an average of £103 15s. each; this was not equally divided, some boards of guardians being more liberal than others. In any case, the difference in the salary would hardly cover the additional expense in the price and keeping of a horse to do the driving connected with a dispensary practice in the country; and Dr. Maunsell thought that the whole salary would hardly pay sixpence a mile mileage at present throughout Ireland.

The difference of living in Ireland between 1871 and the present time was very considerable. Irrespectively of the increase in the cost of living, their qualifications had been increased. A man holding a dispensary appointment in Ireland must have a double qualification, both medical and surgical, and in all probability, in a very short time, in hygiene or public health as well.

Dr. Grimshaw moved the adoption of the report. Speaking of the Public Health (Ireland) Act, he characterised it as one of the most important steps taken in the organisation of the Poor Law Service in Ireland. It was, in fact, the crowning point of the medical system of this country. The whole of the medical service of the country was now confided to its care, as was also the important duty of compiling the vital statistics of the whole of Ireland. It put this association in a totally different position from what it previously occupied. It became associated with the public service of the country, and he thought the title of the association should be somewhat modified to meet the changed state of affairs. Their duties in connection with the prevention of disease were, he thought, even of more importance than those for the cure of disease. There was no doubt that the Poor Law medical officers of Ireland could more efficiently discharge the duties of public health officers than any other body in Ireland, but these duties were very extensive. They would have to make themselves acquainted with the character of disease in their district, and they would have a very large amount of clerical duty in writing out reports and making up books. Dr. Grimshaw then spoke of the remuneration of the medical officers in England, and said he saw no reason why the Irish Poor Law medical officers should be paid less than those in England, and at the starting of the new system he thought they should endeavour to have their remuneration equalised. Half of the increased expense would be paid out of the Imperial Exchequer, so that there would not be much reason for an outcry on the part of the ratepayers. Under the new Bill the towns which would form separate sanitary districts would be 44, and 70 other towns, which would not be separate sanitary districts, would fall within the districts of some of the dispensary district medical officers, and the result would be that each of these officers would be officers of health, who would have to discharge additional duties, and who should therefore receive additional remuneration.

Dr. Evory Kennedy seconded the motion. It was a gratifying thing that a body such as theirs had to approve of the recent enactment of the Government, which was an act of justice to the country and to themselves. But, with regard to the remuneration of medical men, he found that the nearest comparison as to the rate of pay they received was this—it was about equal to the pay of a sub-inspector of police, who received £150 per annum the moment he entered the service; whilst the physician who had devoted four or five years to the study of his profession, and upon whose education several hundred pounds were expended, when he came into the market was offered £75 or £100 a year, and he would have to keep a horse to enable him to discharge his duties. He was sure that medical men would get all they desired as soon as they should have opened the eyes of the public and of the Government of the country to the reasonableness of their demands. They should aim first of all, he thought, at being made directly the medical officers of the Government, and not of the boards of guardians throughout the country. This should be kept steadily in view until they were raised out of the reach of those who carried on a paltry squabbling over a few pounds in the salary which should be given to a medical dispensary doctor. They must not be content until they were placed upon the same basis as the legal officers of the country, to whom they were not inferior. So long as they had to undergo the higgling of boards of guardians, they would be reduced to the lowest possible stipend. In the Local Government Board he had himself every confidence, and, he thought, they should not give up standing shoulder to shoulder until the Government made the appointments themselves, and until they were rewarded as the assistant barristers were, who enjoyed salaries of from £600 to £900 a year.

Sir DOMINIC CORRIGAN said that they were but now arriving at the proper phase of medical science, the value of preventive medicine as distinguished from curative medicine. At the present time many diseases were found to be preventable; and the doctrine was so fully recognised, that it became of more importance than the mere curing of these diseases, which, when they set in severely, went on destroying the population of a district. Sir Dominic then referred to the scheme which the Scotch had got up for rewarding their medical men for vaccinations, and concluded by pointing out the evil practice permitted to poor law officers in England, that of employing assistants, and often employing non-qualified, or, in other words, ignorant and incompetent ones; whereas, in Ireland, every medical officer must do the duty himself.

Dr. O'LEARY, M.P., proposed a resolution, to the effect that this Association expresses its general approval of the Public Health (Ireland) Act. He agreed with Dr. Evory Kennedy, who stated that the Act fell far short of what they desired. In looking over the report, one of the first things that struck him was the difference in the payments of the medical officers of England, Ireland, and Scotland. In England, the taxation for poor relief was 6s. 11½d. in the pound; in Scotland, 5s. 2¼d.; while in Ireland it only amounted to 2s. 11¾d. The public position of medical men in Ireland was such that Sir M. H. Beach said that if the landlords opposed them they could do no more. He believed that while medical men should not go into party politics, they should do more as regards the social politics of the country; and he thought this Association should join with the other associations of the kind in Dublin, and if so it would do a great deal better. He then went on to refer to the working of the Medical Charities Act in England as compared with Ireland, to the manifest disadvantage of the Irish medical men, who were paid an average of £83 in Ireland, as compared with £130 in England.

Dr. WHISTLER seconded the motion. He regretted the apathy and indifference with which he had found that the Irish medical officers endured the hardships and indignities to which they were subjected, but on the other hand, he was delighted to hear the sentiments which had been expressed that day. There never had been introduced into this country an Act of greater social importance than that now before them, and he trusted that a better state of things than that which now existed would soon arise.

The motion was adopted.

On the motion of Dr. O'FLAHERTY, seconded by Dr. CURTIS, a vote of thanks was passed to Dr. Maunsell and Dr. Speedy (the treasurer) for their valuable services during the past year.

A vote of thanks was also accorded the members of the College of Physicians for their kindness in giving the use of their hall for this meeting.

Dr. Whistler was called to the second chair, and a cordial vote of thanks having been accorded to Sir Dominic Corrigan for presiding, the meeting separated.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

The Professorship of Physiology.—The New University Buildings.—Accident to Professor Maclagan.—University Prize List.

THE election of a Professor of Physiology, which continues to be a subject of great interest in Medical and University circles here, is fixed to take place on the 28th of this month. The delay in making the appointment appears to be due to the difficulty of getting together the curators, most of whom are away for their summer holiday at this time of year, and will not return before the end of the month. It is unfortunate that the lateness of the date leaves so short a time for preparation before the winter session begins; indeed, should the choice fall on Dr. Rutherford or Dr. Cleland, some difficulty will surely arise in arranging the winter's work at the schools with which they are at present connected.

The University Buildings Extension Fund continues to make satisfactory progress; and now that the sum of £69,000 has been reached, out of the £100,000 required, the acting committee have taken the important step of issuing a circular to each of six of the leading architects of Edinburgh, requesting them to make designs for the work. One gentleman declined to do so; the remaining five are preparing preliminary plans. The competitors are given to understand that, while due regard is to be paid to architectural style, the greatest importance is attached to convenience in the interior arrangements, and to special fitness for the object in view. The site on which the new buildings are to be erected is an extensive one, reaching from Park Street to the Meadow Walk in the one direction, and from Lauriston to George Square in the other, and is thus in close proximity to the new Infirmary.

The buildings are to comprise a large college-hall for collegiate meetings and other general purposes, lecture-rooms for nine classes of the Medical Faculty, museums for Anatomy and Chemistry, Physiological and other laboratories, and all other arrangements required by a first-class medical school, according to the present methods of scientific work. The dissecting-room is to be at least 100 feet in length, 40 in breadth, and 30 in height, and must be amply provided with the necessary cellarage and courtyard accommodation. The Anatomy and Chemistry class-rooms are to be capable of holding 400 students each, and those devoted to the other branches at least 250. A desire is expressed that these rooms should be lighted from the roof, as a general rule, side windows being added in such as require additional illumination for special purposes. For the Anatomical Museum a spacious hall is desired of 112 feet in length by 40 broad and 40 high, with two galleries running round the walls, to enable the upper wall space to be utilised. Those who know the present confined quarters in which the splendid anatomical collection belonging to the University is lodged, will realise the advantage to be derived from a sufficient space for its suitable arrangement and display. In the Chemistry department, besides a lecture-room and museum, a number of smaller apartments are to be built, specially designed for the study of Practical Chemistry. The large hall is to be capable of holding 2,000 persons on the area and in the galleries, and to be arranged with a view to graduation and other ceremonials, examinations, and similar purposes.

We look with great satisfaction on the fact that this great project has reached this definite stage of progress; for every succeeding session shows the urgent need of increased room for the school to expand in, and of proper accommodation for teaching. The anatomical class-room was filled to overflowing last winter; and how the increased number which the summer matriculation leads us to expect will be provided for, is a problem which will be difficult to solve.

Professor Maclagan had lately a narrow escape from a very severe accident. While driving with his wife and daughter down a mountain road in Skye, the horses became restive, and the carriage was upset against the parapet of a bridge over a small burn. All the occupants were thrown out. Mrs. and Miss Maclagan were severely shaken and cut, but the Professor escaped with considerable bruises.

The following is a list of prizes given in the various medical classes of the University for the summer session. *Botany*—*a*. For Herbarium: 1. Robert Kirk; 2. W. Badger. *b*. For Monthly Examinations—*Seniors* (number of competitors, 80): 1. W. Richardson; 2. W. Strang; 3. R. A. Lundie; 4. T. Dixon. *Juniors* (number of competitors, 147): 1. John McMillan; 2. W. Inglis Clark. *c*. Vegetable Histology—1. J. Hyslop; 2. W. H. White; 3. D. O. Masson. *Natural History—Seniors:* 1. John Robertson; 2. A. Thom, M.A.; *Juniors:* 1. J. Stewart; 2. W. A. Forbes, A. W. McIntosh (equal). *Medical Jurisprudence*—1. A. R. Turnbull; 2. John McDiarmid; 3. A. H. Young. *Medical Psychology and Mental Diseases*—1. J. McDiarmid. *Practical Physiology*—J. D. Young and George Ogilvie (equal); 3. James L. Sherlaw.

CONSTANTINOPLE.

[FROM AN OCCASIONAL CORRESPONDENT.]

The Plague at Benghasi.—Outbreak of Fever in Damascus.—The Death of M. Abdulla Bey.

FROM advices lately received here from the island of Candia, which is still in open communication with the infected districts, it appears that the plague has again broken out in the neighbourhood of Benghasi, at a dirty little village by the name of Lourka, some eight hours' journey by road. It will be remembered that it was in Benghasi and its vicinity that a very severe outbreak of the true Oriental plague occurred in 1857. One of the members of the Constantinople commission was immeditely ordered to proceed thither and to personally investigate into the cause and nature of the outbreak. His report we are anxiously awaiting. At the departure of the mail some twenty cases had occurred, with nine deaths. Much fear is entertained by the Candiotes that, if the disease should spread actually into Benghasi and Derna, it will extend its ravages to Candia, with which place at the present time no quarantine regulations are observed; and, as I have mentioned above, there is free communication. The Turkish authorities, with their usual obstinacy, have objected to quarantine the plague-stricken village by means of a *cordon sanitaire*, which, when properly carried out, though somewhat cruel in practice, has certainly the advantage of being the most efficacious proceeding for localising and stamping out a contagious disease.

In my last letter I spoke of the deplorable sanitary condition of Damascus. The inhabitants predicted some months ago, that with the advent of the summer heat would come disease and death; this prediction has, unfortunately, proved correct, for at no time during the last ten years has there been so much sickness and disease. Fever of an aggravated form, *perniciosa*, and diarrhœa, have stricken one or more of the inmates of nearly every house; and the number sick at present in the city and suburbs is variously, and I may say very roughly, estimated to be between eight thousand and forty thousand—a wide margin, it is true, but the apathetic Oriental has not the slightest idea of either the value, or apparently the use, of a statistical return, and I have every reason to believe that the last number given will prove itself nearer the truth. One-third of the garrison is on the sick-list, as well as two hundred of the *employés* in the French company.

It is with great regret that I have to record the death of Dr. Abdullah Bey, one of the most talented and respected of our Constantinople physicians. He had been selected by Marco Pacha as one of the three commissioners appointed to investigate into and report upon the Lake of Uricos as a source of the future water-supply of Constantinople. In him geology will have to lament the loss of one of its most erudite members: it was in this particular branch of science that he particularly distinguished himself. His widely known works on the geological formation of the Black Sea, Bosphorus, and Marmora, show both talent and ability of no mean order.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Opposition in Learned Societies.—Concretions in the Vesicula Seminalis. Swallowing of Foreign Bodies.—The Winter Session.

IF, in the intellectual as well as in the physical world, the principle of antagonism be everywhere evident, it is because it would seem to be necessary for the very existence of all things animate or inanimate. This principle also prevails in all social gatherings of men, whether of a religious, political, or philosophical character. In all learned societies, it may be observed that, when a proposition is made or an opinion expressed by a member, however plausible it may appear, it is almost sure to meet with opposition, and this spirit of opposition seems to take a permanent hold of some individuals; so much so, that they are ever ready to turn it to account whenever opportunity offers. At the Academy of Medicine of Paris, M. Jules Guérin is almost always in the field of opposition, whatever the subject of discussion, particularly if M. Depaul be engaged in it. These two academicians seem to make it a point to oppose each other; so much so, that, whenever one broaches a subject or makes a proposition, it is expected as a matter of course that it will be opposed by the other. This has been verified lately under the following circumstances. Through the instigation of a Dr. Guilbert, a practitioner in Paris, the Prefect of Police addressed a letter to the Academy of Medicine, requesting information as to the advisability of the revaccination of those persons who, in 1870, were vaccinated direct from the cow. This was the year in which there was such a panic in Paris, owing to a severe epidemic of small-pox, that people lost confidence in "hominal" vaccination, and gave the preference to animal vaccination. At the end of the same year and the beginning of 1871, another epidemic of small-pox broke out, and proved fatal to about 14,000 inhabitants in Paris. This was attributed by M. Guilbert to the inefficiency of animal vaccination as an antidote against small-pox; and it was on this representation of the case that the Academy was called upon to report on the subject. A committee was formed to investigate the matter, and M. Blot, the reporter, stated that inoculation from the cow, when properly performed, is at least equally as efficacious as arm-to-arm vaccination. As regards the superiority of one over the other as a preservative against small-pox, the committee could not then express an opinion; time alone could decide. The reporter, however, remarked that in either case the preservative property was only temporary This view of the case was supported by M. Depaul, and this was sufficient to bring M. Jules Guérin into the field. M. Guérin stated that the preservative property of hominal vaccination lasted at least fifteen years; and he asked how it was possible to know whether the immunity produced by animal vaccination lasted as long, as it was only in 1868 or 1869 that this latter mode was introduced. MM. Blot and Depaul retorted that the immunity produced by human vaccination might last ten, five, or only two years. As to the great mortality from small-pox in the epidemic of 1870 and 1871, M. Depaul had shown that, out of the 14,000 deaths, children formed a minor proportion; it was individuals of 18 to 25 or 30, all of whom had been vaccinated with hominal lymph, that formed the largest proportion. M. Depaul concluded by stating that the accusations brought by M. Guilbert against animal vaccination were unfounded, and reiterated his opinion that animal vaccination rendered as much service as hominal. Nothing, he added, proves that children vaccinated from the cow are more liable to contract small-pox than those inoculated from arm to arm. Here the discussion ended, with MM. Depaul and Guérin and their respective partisans as far as ever from each other.

At another meeting of the Academy, Dr. Reliquet, a specialist for the urinary organs, read a very interesting paper on spermatic colic in the left vas deferens caused by concretions in the vesicula seminalis of that side. The subject of the case was a hair-dresser, aged 35, married, of a delicate constitution, pale, emaciated, countenance worn. After describing the symptoms from which the patient suffered, and which began about a year before he applied for relief in March last, Dr. Reliquet stated that he had the greatest difficulty in diagnosing the case, so much did the symptoms resemble those of stone and enlargement of the prostate gland. In examining the patient for stone, the latter was seized with a violent spasmodic pain in the urethra, and in a few minutes he expelled a quantity (about forty in number) of small whitish bodies, varying in size from a pin's head to a small lentil, which followed a great flow of urine. These bodies presented flat surfaces and obtuse angles, like those of prostatic calculi. They were, however, soft, and broke easily between the fingers. To the naked eye, they seemed to consist of a homogeneous substance without any enveloping membrane. The liquid which followed was sanguinolent. Dr. Reliquet, never in all his practice having met with a similar case before, was somewhat puzzled as to the nature of these little bodies; he, therefore, submitted them to M. Charles Robin, the celebrated histologist, for examination, who described them as "sympexions" (concretions). After the expulsion of these bodies, the patient recovered rapidly, and he no longer suffers from any pain or inconvenience during micturition, copulation, or defæcation. Dr. Reliquet remarks that the surgeon is often consulted by patients suffering from severe pain during ejaculation, but that the cause is almost invariably sought in the tissues surrounding the seat of pain; whereas, if the semen be examined in these cases, it will probably be found that the disease is not so uncommon as it is represented to be, and that, at any rate, an examination of this fluid would remove all doubt in the matter.

In giving an account of the "homme à la fourchette" in my letter of May 9th, I mentioned other instances in which forks had been swallowed. To that list I may add another which I have just learned at the anatomical museum attached to the School of Medicine, where I saw a model of a silver fork which had been swallowed by a young married woman, aged 24, on September 14th, 1818. It was retained 229 days in the stomach, when it was extracted by M. Cayroche, a practitioner in the town of Mende (Losère) on May 1st, 1819. The patient was completely cured in twenty days after the operation of gastrotomy had been performed, and bore three children afterwards. The model of the fork is only to be seen, as the original, being of silver, was stolen. It was of the size of an ordinary table-fork. This reminds me of a case lately brought by Dr. De Saint-Germain to the notice of the Surgical Society of Paris, of a boy, 5½ years old, having swallowed a small wheel (*roulette*) belonging to an article of furniture, which was rejected by the anus seventeen days after the accident. During all this time, the child had suffered no inconvenience whatever from the presence of the hard morsel in his stomach or intestines; so that the doctor had strong doubts as to the possibility of the accident, as he could not detect its presence by palpation until it was actually produced by the child's parents. The wheel was mounted with copper and iron, which were slightly oxidised. The child is doing well. From the above case, Dr. De Saint-Germain states we might learn a lesson or two. The first is, never to pronounce against the possibility of the introduction of foreign bodies into the stomach, even in the absence of symptoms or when even palpation produces negative results. The second lesson is, not to interfere in any way, but leave the case entirely to Dame Nature, who will manage it much better than the most skilful physician or surgeon.

A few days after the opening of the winter session in England, that in Paris begins also, and the following is a list of the professors who are to lecture at the School of Medicine: Professor Gavarret, on Medical Physics; M. Fernet, acting for Professor Axenfeld, on Medical

Pathology; Professor Sappey, on Anatomy; Professor Chauffard, on General Pathology and Therapeutics; Professor Wurtz, on Medical Chemistry; Professor Dolbeau, on Surgical Pathology; Professor Le Fort, on Operative Surgery; Professor Robin, on Histology; Professor Lorain, on the History of Medicine and Surgery; M. Hayem, acting for Professor Bouillaud, Professors Sée, Béhier, and Lasègue, on Clinical Medicine; Professors Richet, Gosselin, Verneuil, and Broca, on Clinical Surgery; Professor Depaul, on Clinical Obstetrics; M. H. Roger, on Diseases of Children.

ASSOCIATION INTELLIGENCE.

SHROPSHIRE ETHICAL BRANCH.

The annual general meeting will be held at the Lion Hotel, Shrewsbury, on Monday, October 5th, at 1 P.M.; the President, W. A. Davies, Esq., in the Chair.

Subjects for Discussion.—The Revised Tariff of Medical Fees; The Proposed Tariff of Surgical Charges; the Suggested Preface thereto. Cases and communications by members.

Dinner will be served at 3 P.M., for the convenience of the country members. Tickets, exclusive of wine, 7s. 6d.

Members have the privilege of introducing friends, on transmitting their names to the President.

Chamber Concert Music by a select band of musicians, under the leadership of Mr. Appleby of Liverpool, will be provided, as usual.

Gentlemen intending to read papers, etc., will oblige by communicating their titles (for insertion in the "circular note" of invitation), before the 8th proximo, to

Jukes Styrap, *Honorary Secretary and Treasurer.*

Shrewsbury, August 31st, 1874.

SOUTH MIDLAND BRANCH.

The eighteenth autumnal meeting of this Branch will be held on Tuesday, October 6th, at 2 P.M.—the President, Robert De'Ath, Esq., in the Chair—at Tickford Lodge, Newport Pagnell, the house of H. Hailey, Esq., who will kindly provide luncheon between 12.30 and 1.30 P.M.

Gentlemen intending to read papers, etc., are requested to furnish the titles before the 28th instant, to Dr. Bryan.

J. M. Bryan, M.D.,
Wm. Moxon, } *Hon. Secs.*

Northampton, September 13th, 1874.

CORRESPONDENCE.

THE WEBB FUND.

Sir,—I have to ask that you will kindly allow the space for a final statement respecting the "Webb Fund". Owing to the "law's delay" and other slight hindrances, the trust deed of the Fund has only just lately been signed, or the statement would have been sooner sent for publication. The Fund was closed on June 27th, and the following contributions received since the last announcement are now acknowledged:—

	£	s.	d.
A thank-offering from G. A. K.	5	5	0
Walter Coulson, Esq....	5	0	0
Erasmus Wilson, Esq.	10	10	0
Sister Jane Wilkinson...	2	2	0
R. R. Newman, Esq....	10	10	0
W. Mercer, Esq. ...	6	0	0
Dr. A. Henry ...	2	2	0

	£	s.	d.
Dr. Hardinge ...	3	3	0
	44	12	0
Amount previously acknowledged ...	2,029	9	6
Total...	£2,074	1	6

A meeting of the General Committee was held on July 1st, at 11, New Burlington Street (Mr. Augustus Churchill, honorary treasurer, in the chair), when the honorary secretaries reported that the contributions received amounted to £2,074 : 1 : 6, and with interest there was a sum of about £2,090 to be dealt with. The Committee then passed resolutions directing the investment of £1,981 : 5 to form a "Webb Trust Fund", electing trustees, and empowering the honorary treasurer and secretaries to have a trust deed drawn up and executed, to pay all expenses incurred on account of the Fund and the trust deed, and to pay over the surplus of the Fund to Mrs. Webb.

All this has now been done, the trust deed having been drawn so as to carry out the intentions expressed at the first meeting of the Committee—viz., that any fund collected should be invested for the benefit of Dr. Webb's family, and to aid in the maintenance, education, and advancement of his children. The following is a statement of the receipts and expenditure:—

	£	s.	d.
Amount collected ...	2,074	1	6
Interest	17	9	9
	£2,091	11	3

	£	s.	d.
Invested	1,981	5	0
Dawson and Sons, advertising agents	17	10	6
Law stationer ...	1	0	0
Stationary, postage, etc.	2	13	5
Balance paid to Mrs. Webb	89	2	4
	£2,091	11	3

In closing their labours, the Committee have gratefully to acknowledge the generous response which has been made by the profession to the appeal on behalf of the family of the late Dr. F. C. Webb, and also the valuable assistance which has been afforded by the medical journals, and the generous kindness of the solicitors and some others who have given much time and trouble gratuitously.

I am, etc., Wm. Cholmeley, Hon. Secretary.

THE RAILWAY ACCIDENT AT THORPE.

Sir,—I was extremely grieved to perceive, by the daily papers, that Mr. Francis had sunk under the injuries he sustained in the Thorpe collision. You alluded, in a late number of the Journal, to the medical men who were in the train, and especially to those whose exertions at the Norwich meeting conduced so much to its success. Among those, you omitted to name Mr. Wentworth White of Norwich, who was most active and courteous during the meeting. This friend of mine was also in the unlucky train, and was extricated after three hours' exertions. He suffered from severe contusion of the shoulder and distressing nervous shock. I am glad to add that, according to the latest accounts, he is rapidly recovering.

September 22nd, 1874. I am, etc., Victor de Méric.

TAPPING THE CHEST.

Sir,—As the designer of the little trocar which goes by my name, and which was originally devised especially for tapping the chest, I am naturally interested in the proposal to attach an aspirator to it, or to some modified form of it. When the trocar is in action, its conducting tube forms the long leg of a syphon, and probably assists in keeping up an equable flow of the fluid, *as long as the distended chest-walls contract, or the compressed lung expands.* To endeavour to do more than this, to create a partial vacuum, with the hope of more thoroughly emptying the pleural cavity, must be injurious. There must be a risk of the unbalanced atmospheric pressure causing hæmorrhage from the vascular surface of the diseased pleura, or even rupture of the damaged lung itself. Thus, Dr. Russell recently (Journal, p. 173) relates a case in which the opposite lung travelled over and occupied some part of the diseased side of the chest, under the action of the aspirator; no doubt, to the imminent risk of rupturing its structure, and, as was certainly demonstrated, to the very urgent disturbance of the heart's action. Again, the house-surgeon of the North-Eastern Hospital for Children states that in paracentesis thoracis, with the aspirator, "more or less hæmorrhage occurs in almost every case; probably due to the rupture of the delicate vessels of the new membrane which forms on the pleural surface in cases of pleuritic effusion".

The danger of wounding the lung by the point of the needle, appears to me small by comparison with that caused by carrying the exhaustion of the fluid too far. When one remembers the enormous power of atmospheric pressure, as shown in the common experiments of rupturing a bladder stretched over a glass vessel, or of forcing quicksilver in a shower through solid wood, by simply withdrawing the air from beneath them, I think one should hesitate to put ever so little of such stress on a disabled lung.

Moreover, there is nothing to be gained by it, except that the puncture is smaller with the aspirator, inasmuch as the unbalanced atmospheric pressure will drive the fluid through a smaller tube. I doubt if, in any case of pleural effusion, one ounce more could be withdrawn by the aspirator than by the trocar without some risk of damage.

I have had numerous testimonies to the efficiency of my little instrument, as first introduced and described in the medical journals of March 1858. I am, etc., Charles Robert Thompson.

Westerham, September 21st, 1874.

SCARLATINA AT NEWARK.

Sir,—Please allow me to correct a misstatement which appears in your Journal of the 19th instant. In that number I notice a paragraph to the following effect: "A severe outbreak of scarlatina has occurred at Newark, where, in a population of less than twelve thousand, sixteen or seventeen deaths are occurring weekly from that disease." In the first place, Newark contains more than 12,000 inhabitants. In 1871, there were 12,187 inhabitants in the registrar's subdistrict, and 12,195 in the municipal and parliamentary borough. In the second place, though scarlatina has recently been very prevalent at Newark, yet it has not existed to such an extent as is indicated by the above statement.

Instead of "sixteen or seventeen deaths occurring weekly from that disease", six has been the greatest number which has been registered in any week, and that number has only been reached once, during the week ending September 12th. During the three weeks preceding that, there were four deaths weekly. Four deaths were caused by the fever during the week ending September 19th.

Since July 1st, there have been twenty-seven deaths from scarlatina, and during the latter half of the previous quarter there were eight, making a total of thirty-five deaths from that disease.

The fever appears to have been of a very fatal character; but, in the absence of any registration of disease, it is utterly impossible for me to give any exact information as to the proportion of deaths to the cases which have occurred.

Such registration is undoubtedly very much needed, and the want of it greatly paralyses the efforts of health officers to prevent the spread of infectious diseases.

I may add that the urban sanitary authority of Newark, which has only very recently come into power in the place of the late Improvement Commissioners, is taking very active steps to stop the spread of the disease. I am, etc., Alfred Ashby,

Medical Officer of Health, Grantham, Newark, and Sleaford
Grantham, September 21st. combined Sanitary Districts.

THE TREATMENT OF OUT-PATIENTS.

Sir,—I presume Mr. Hardy's object in his first letter was to expose the errors of the system of out-patient relief at London hospitals; and, so far as St. Thomas's is concerned, I suppose I showed he was not justified in his assumption, as he leaves this subject out of sight, and proceeds to criticise my diagnosis and treatment of a case which I thought extremely obscure, but which he does not. He will pardon me if I do not defer to his opinion. Of course, I cannot say what opportunities he may have had of observing such cases. He will pardon me also for pointing out that, after having been told that little or no information could be obtained during the boy's life, he makes rather a point of saying that the boy came with the leading symptoms of the disease "present for months", and therefore, by inference, obtainable on inquiry.

I may state, in explanation, that the liniment referred to by the registrar was not ordered at the hospital, and that its employment was unknown to me.

It was surely unnecessary for him to make the rather splenetic and altogether incorrect assumption that there had been collusion between any member of the *Lancet* staff and myself. If Mr. Hardy's object be honestly to attack an abuse, there is an open field for him, and many will be ready to assist him if he go the right way to work. Moreover, if he wish to see how out-patients are examined and treated at this hospital, I shall be very pleased to see him at my *clinique*, and hope to show him there more courtesy than he has done me in his letter.

I am, etc., W. W. Wagstaffe.

London, August 7th, 1874.

HOSPITAL CONSTRUCTION.

Sir,—Having read the report, in to-day's Journal, of Dr. Beverley's interesting paper on the statistics of Norwich Hospital, I would beg to remark, that to provide a hospital with "fresh air and plenty of it" has been my aim since the delivery of the able address on Hospital Construction, by Captain Galton, in 1869. In order that a patient may be surrounded with fresh air, it is self-evident it must first be admitted into the building, and that when admitted it be not rendered impure. To procure pure air, the hospital must be placed in a healthy locality, and must not "foul its own nest" by imperfect drainage, defective sewer-ventilation, etc.; or, if the hospital be placed in the midst of a crowded city, the air must be purified in its passage into the building. To prevent the admitted air from becoming impure, a constant upward current must be produced; each patient must be isolated in a lofty compartment having an inclined ceiling, and made of non-absorbent material,—glass being the best and cheapest. Enamelled sheet-iron would also prove useful for certain parts. The cases specially requiring such precaution are:—wounds, whether resulting from operation, accident, or disease; fever and obstetric cases. At present, patients infect one another, and the wards absorb and then transmit infection. I also believe that exhalations from healthy wounds in surgical wards with porous walls are absorbed by the walls, and then decompose, and become a source of mischief. My plan of hospital construction meets every requirement set forth by Dr. Beverley in his paper, and by others who entered into the discussion. For a full account of my plan, I would beg to refer those who are interested in the subject to the report of the paper I had the honour of reading before the Association in 1871, and to my additional remarks, published last year (see British Medical Journal, May 11th, 1872, and November 15th, 1873). Reprints of these papers were appended to the drawings I lately exhibited at Norwich, in the annual museum of our Association.

I quite agree with Dr. Beverley's remarks as to the *future* of the existing Norwich Hospital; and I trust that he may be led to see that a new surgical hospital can be erected, of which it would be incorrect to say—"only for a little time would there be good results".

In closing this note, I would just remark that parianised walls are very expensive, and not altogether non-absorbent; and their use is very doubtful, whilst the ceiling and floor are of the ordinary character. As regards the iron hospital at Norwich, I am not surprised to find it unfavourably spoken of by Dr. Beverley. In order that such building may not be much affected by extreme heat or cold, it should have an outer casing of preserved wood, or, like my glass structure, it should be enclosed in a much larger building, so as to leave a passage or corridor between the two. But even then it would be imperfect as a surgical or fever hospital. I am, etc.,

Plymouth, September 5th, 1874. Henry Greenway.

THE INFLUENCE OF HYGIENIC CONDITIONS ON ZYMOTIC DISEASE.

Sir,—In his "President's Address" at Norwich, Dr. Copeman well illustrates the power of defective hygienic surroundings to intensify imported disease originally of mild character. The following may interest as showing how, circumstances being reversed, an intense form of zymotic disease, imported from an unhealthy to a healthy neighbourhood, may become rapidly ameliorated. Circumstances enabled me accurately to note the details of the case.

In the summer of 1846 an English servant girl was, to my knowledge, exposed on a certain day to the contagion of typhus in the old town of Edinburgh. She left Edinburgh next day for England, to reside in a healthy country village. She was ailing for six weeks before she took to bed, with well-marked symptoms of typhus. She had the disease in a severe form, with affection of all the cavities in succession, and barely escaped with life. Her mother, a delicate woman of forty, nursed her and took the disease. She passed through it at her own home, an airy cottage built on sloping gravel. The attack was sharp continued fever, but devoid of proper typhous symptoms. A son of eleven years took the disease from the mother, and had a very slight attack, and speedy recovery. It spread no further in the family. The above well illustrates, but in reverse, Dr. Copeman's position. Under defective hygienic conditions, how different, probably, would have been the results!

The period of incubation in the first case was unusually prolonged. I may also remark that, having seen much of genuine typhus in Edinburgh in 1836-7, I was struck with the identity of the disease brought thence to an English country district, and with the rapid change of type. I am, etc., Spencer Thomson, M.D.

Ashton, Torquay, August 18th, 1874.

URINARY CALCULI.

Sir,—The address of Mr. Cadge having excited an interest in the producing causes of urinary calculi, an interest likely to be increased by the paper of Dr. Fox on "water analysis", and the remarks in discussion by the president of the section and Dr. Parsons, I beg space to advance a theory which I think has not been mooted, viz., that *temperament* has a potent influence as a predisposing cause of calculus.

Great Britain was peopled with Celts, when two septs of Teutons invaded and planted colonies in it. The Celts were a nervose race, and wherever their descendants are found in greatest numbers, there the nervous temperament is most common; on the other hand, where descendants of the Teutons are most numerous, the lymphatic and sanguine temperaments prevail.

If we take Mr. Cadge's table, in page 208 of the JOURNAL as a guide, we see that in the four eminently Teutonic counties first given, viz., Norfolk, Huntingdonshire, Kent, and Sussex, there is one death from stone in every 55,800 of the population; whereas in Derbyshire, Herefordshire, Somersetshire, and Cheshire, with their chiefly Celtic inhabitants, we find the proportion only one in 225,900 of the population. I take the latter four counties because they have been remarked upon in the JOURNAL; although Ireland and Cornwall, being more decidedly Celtic, and remarkably free from stone-cases, would better support such a theory. Derbyshire, to which our attention is drawn by Dr. Webb, is one of the counties which eighteen months ago caused me to think that temperament had an influence in predisposing to stone. Throughout that county the water, an exciting cause, is but a few degrees less hard than in Norfolk, yet calculus cases are one-third less frequent. This difficulty I could only solve by the aid of anthropology; and have since continued to believe that the organism of the Celt is less disposed to the formation of uric acid than that of the Teuton, and that racial and temperamental differences deserve greater prominence in medicine than they have yet received.

Temperament may control diathesis, and influence habits and tastes, *e. g.*, if, as I believe, beer tends to cause, and tea and whisky to prevent, calculus, we know that the lymphatic and sanguine temperaments are partial to beer, whether it be Burton in England or Lager on the Continent; while the nervous temperament prefers tea, cider, or alcohol.

I forward this idea about the influence of temperament for the use of future inquirers. I am, etc., JOHN C. MURRAY, M.D.

Newcastle-on-Tyne.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE Cheltenham Board of Guardians have granted, and the Local Government Board have sanctioned, a superannuation allowance of £56 *per annum* to Mr. Henry Beach, on his resigning as Medical Officer for No. 1 District.

A SANITARY PROSECUTION.

MR. GODFREY of Red Lion Court, Fleet Street, was recently summoned for neglecting to keep the house, No. 15, King's Head Court, in proper repair, by cleansing and limewashing. The Sanitary Inspector proved that a notice had been served, which expired on May 13th, and that up to the present time nothing had been done. There had been a death in the house from fever, and another person was very ill from the same cause. Dr. Thompson had announced his intention of holding an inquest in the event of another death occurring in the house from the same cause. The defendant asked for time to effect the necessary improvements; but, this favour having been granted previously without his attempting to remedy the state of the house, Alderman Paterson declined to allow any further extension, and inflicted a penalty of £5 and costs.

REPORT OF THE LOCAL GOVERNMENT BOARD.

THE Local Government Board have just issued their annual report, which, dealing with the numerous subjects which have been brought under the management of the Board, is necessarily voluminous. The transactions of the year are stated under three heads; viz., the administration of (1) the Poor-Laws, (2) the Local Government and Sanitary Acts, and (3) the Laws relating to the Public Health. In addition to the Poor-Laws, the Department has the control of the Sanitary and Local Government Acts (these, before 1871, were administered by the Home Office); the Public Health Acts, formerly under the Privy Council; the business of the Alkali Act and the Metropolitan Water-Supply Act, both transferred from the Board of Trade; the Adulteration of Food Acts; the Turnpike Roads and Highway Acts, recently managed by the Home Office; the collecting and publishing annual Returns of Local Taxation, duties taken over from the last-named Department; the supervision of private Bills which in any wise relate to sanitary affairs, and the regulation or suppression of steam-whistles upon appeal from an afflicted district.

The Poor-law portion of the report shows that there has been a general decrease, to the extent of 8½ per cent., in out-door relief. The cost of maintaining lunatics in asylums has increased in the year about 5¼ per cent. This is a charge which for some time past has shown a strong tendency to grow; it costs now more by £170,000 to support this class of the poor than it did six or seven years ago, and £5,490 more in 1873 than during the previous year. Going back seven clear years, it will be found that the whole number of lunatic paupers of whom the Poor-law Board had cognisance in 1865 was 38,487. In 1873, they had, by steady yearly increments, reached to 51,405—nearly 13,000 more—being an increase of something over 33 per cent. During the same interval, the pauper lunatics in asylums and licensed houses increased from 22,174 to 29,992, thus showing an addition of 7,818, or 35 per cent. It is for this class that the Guardians are to be reimbursed by Her Majesty's Treasury at the rate of 4s. per head weekly—a subsidy which will relieve the unions of about 40 per cent. of the total cost. The domiciles of the whole of the lunatic poor chargeable to unions and parishes are shown by the table for 1872 and 1873.

Domicile of Insane Paupers.	1st of January.		
	1872.	1873.	
County or Borough Lunatic Asylum......	27,685	28,411	Increase, 726
Registered Hospital or licensed house	1,406	1,581	,, 175
Workhouse	13,608	14,343	,, 735
Residing with relatives, in lodgings, or boarded out	7,436	7,070	Decrease, 366
Totals........................	50,135	51,405	Increase, 1,270

Several pages of the report are given to the proceedings under the Metropolitan Poor Act, 1867. One of the most urgent duties imposed upon the local authorities by the Act was the enforcement of adequate relief for the sick paupers. The district subject to the statute comprises thirty unions. By the end of last year, six unions had made effectual provision for their patients in sick asylum districts; nine had separate infirmaries, and two unions were then erecting them; four unions treated the sick in workhouses set wholly apart for that purpose; so that twenty-one unions appear to have provided accommodation for the sick to the satisfaction of the Local Government Board. Proposals have been made by the Board to the Hackney, Marylebone, and Whitechapel Unions for the introduction of separate infirmaries. The Hackney guardians have resisted, and the Board were considering "the question of the further steps which may be necessary to take" to enforce compliance. A similar difficulty was experienced with the St. Olave's Union. The Board issued a compulsory order, but the guardians resolved to provide such accommodation for the sick as the authorities required. There remain six unions in which the sick paupers are, or were, treated in mixed workhouses; viz., Bethnal Green, Fulham, Lewisham, Paddington, Hampstead, and Mile End Old Town.

A number of the inmates of the Leavesden and Caterham Asylums have been recently draughted into the Hampstead Hospital, no longer required for small-pox patients. The space gained at Caterham and Leavesden "has been utilised by the guardians, who have been enabled to diminish the number of paupers treated in asylums and licensed houses". The work of the small-pox hospitals is now light. Homerton contained but nineteen patients, and Stockwell had no cases. The two hospitals have been used for the reception of fever-cases, and these have been sufficiently numerous to show the value of those institutions "both as a means of cure and as an agency for preventing wider propagation of contagion".

During the year, the Board have issued regulations to the Central London and to the Poplar and Stepney Sick Asylum districts, authorising the managers to receive into the asylums single women or widows between 25 and 35 as "probationary nurses". These persons must undertake, except under special circumstances, to remain as probationers for twelve months, and are to be employed under the control of the medical officer and the matron as assistant nurses. The Board believe that, upon the whole, the arrangement worked satisfactorily.

The Local Government Board have given much of their attention to the task of eradicating ophthalmia from the pauper schools of the metropolis, where it has extensively prevailed, though of a milder type than formerly. Since its outbreak twelve years ago at the Hanwell schools, "but few instances have occurred in which the disease has been destructive of sight". "There can be little doubt", the report states, "that the condition in which the children have been, during the last few years, sent to the schools has proved a most fruitful source of this as well as other infectious diseases". Special and full reports from Dr. Bridges and Dr. F. J. Mouat upon the causes of the outbreak and the remedies to be applied are printed in the appendix. The most important preventive measure has been the isolation of the children. The Board express their acknowledgment of the energy displayed by the managers of the North Surrey Schools in wrestling with the disease. More than three hundred children there suffering from the epidemic were removed to an unoccupied building and placed under the care of a medical officer having special experience. Many of the children have been cured "without serious interruption of the course of school-discipline".

The Local Government Board have, for the purposes of public health, jurisdiction over more than 1,400 local administrative bodies. Municipal boroughs, towns under Improvement Acts, and Local Boards of Health constitute "urban sanitary authorities", and number in all 800. Poor-law unions, with certain exceptions, are the "rural sanitary authorities"; they may be taken at 600. Besides these, 46 port sanitary authorities have been appointed under the Board's orders. The sanitary care of the metropolis, except in the business of water-supply, has not been entrusted to the Local Government Board. On adding the districts in London responsible for the protection of the public health, it will be found that the local sanitary work of the kingdom is in the hands of about 1,500 separate bodies.

Since 1848, the total amount of loans sanctioned for sanitary purposes has exceeded £12,000,000. Of this sum, nearly £1,000,000 was taken up in 1873. The moneys were advanced by the Public Works Loan Commissioners in the great majority of instances at 3½ per cent. Up to the end of 1873, the Board had sanctioned the appointment of a number of medical officers of health.

Medical Officers of Health Appointed.	To end of 1872.	During 1873.	Total.
By Urban Sanitary Authorities	25	138	163
By Rural Sanitary Authorities	190	94	284
By combined Sanitary Authorities	8	56	64
	223	288	511

Up to the end of 1872, 230 inspectors of nuisances were appointed, and 357 more in 1873; making a total of 587.

The policy of the Board with respect to the appointment of medical officers of health is announced in these words:—

"Our general policy has been to advise that, whenever the services of an officer possessing special and superior qualifications for the office were likely to be obtainable, a combined district should be formed and a joint appointment made, and we have invariably instructed our inspectors to this effect. At the same time, it must be borne in mind that such an arrangement as this can only be effected by the concurrence and cordial co-operation of all the local authorities interested, as the Board have no power to direct or enforce a joint appointment, however desirable it may appear to them to be."

Wherever the local authorities have been averse from a combination of districts, the Board have only sanctioned the appointments for a short time, rarely more than a year.

Regarding districts under the supervision of inspectors of nuisances, the main object of the Board "has been to ensure the appointment of an officer for a district large enough to occupy his whole time at a salary sufficient to command the services of a competent person". The Board have constantly objected to the appointment of relieving officers and policemen as inspectors of nuisances. The Home Office, to the great satisfaction of the Board, has recently prohibited the police from accepting the duty.

The proceedings of the Medical Department of the Board have included forty-two medical inspections, one relating to a question of hospital accommodation, another to a certain manufacturing process, causing a nuisance in several districts. Forty inquiries related to the presence of more or less important disease. An inquiry as to the sanitary conditions under which certain trades are carried on is still in progress. In the course of the year, 1,617 vaccination districts, about half the total number, were inspected; vaccine lymph was supplied in 9,569 cases. The educational vaccination stations, established in 1859, were also inspected. In the year ending at Michaelmas, 1873, the number of successful vaccinations performed by the public vaccinators was 501,189; in addition to these primary cases, there were 25,917 of revaccination; the number of public vaccinators was 3,092. The ratio of primary vaccinations to births registered has differed considerably of late. In 1870, the proportion was 60 per cent.; in 1871, it rose to 87½ per cent.; in 1872, it was 82½ per cent.; and, in 1873, it again sank to 60 per cent.

In view of the prevalence of Asiatic cholera in many parts of the Continent, an order was issued by the Board prescribing amended rules applicable to ships suspected of choleraic infection. The Board at the same time issued to the local sanitary authorities a memorandum, drawn up by their medical officer, Mr. Simon, on the precautions proper to be taken against the disease.

The Board express much satisfaction in referring to the judicious action of Dr. Angus Smith, the chief inspector under the Alkali Acts, and his assistants. The serious evils resulting from the manufacturing processes which are within the scope of the Acts have been materially mitigated; further legislation, however, appears to be needed, and this the Board contemplate proposing. Dr. Smith himself remarks that—

"The work is gradually being done with more exactness, and it becomes, of course, more certain; but the Act is unfitted for dealing with the increase of manufactures, and there are districts in which more injury has been done to vegetation this year than on any previous one."

The water-supply is the only sanitary measure over which the Local Government Board have jurisdiction within the metropolis. The officers for carrying out the provisions of 34 and 35 Vict., cap. 113, are a water-examiner and an auditor of the half-yearly accounts of the different companies. The supply is in the hands of eight companies. The state of the "intake", the condition of the filtering-beds, and the works of each company are reported on monthly by the water-examiner. The auditor reports at length his proceedings in passing the accounts of 1873. Mr. Stoneham acknowledges the perfect frankness with which all the companies have made him acquainted with their affairs, and the cordial assistance he has received from their officers.

Since the Board made their last report, they have approved the appointment of analysts for several additional counties and boroughs. There are, however, numerous local authorities who have not yet availed themselves of the provisions of the law touching the adulteration of food. Numerous memorials from retail dealers in imported articles have been addressed to the Board, complaining of the hardship inflicted upon them by the recent Act, especially with reference to tea, which is alleged to be largely adulterated in China previously to exportation. The contention of the memorialists is, that the Customs' officers should be made responsible for the examination of all tea before the duty is paid, and that, when once passed, sellers should be exempt from penalties for the previous adulteration of that article. The Board, anticipating the appointment of a Select Committee of the House of Commons next session to inquire into this and other points as to the operation of the Act, have postponed for the present any compulsory action with regard to the appointment of analysts.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ASHANTEE EXPEDITION.

We are gratified to learn that the army medical officers detailed for duty in the late Ashantee war on board H.M. hospital-ship *Victor Emmanuel* have received the double pay promised to them by the Director-General of the Army Medical Department, under the provisions of the Royal Warrant of March 1873.

THE NAVAL MEDICAL SERVICE.

Sir,—Believing that at the present time authentic information as to the actual position of the naval medical surgeon may be useful, I propose in this letter to enter as fully as possible into the details of the internal economy of the Naval Medical Service, in the hope that it may prove of some value to the young medical tyro, who is still undetermined as to the choice of his future career. Before proceeding with the subject, I would most sincerely and strenuously advise him not to make "Her Majesty's Navy" the service of his adoption. I speak advisedly when I say that under its present aspect it is not a service for an educated man and a gentleman to enter. The question which concerns us very greatly, and is of essential importance to our comfort and well being, is the question of rank. In the Navy, rank, both relative and substantive, is pushed on shipboard to a ludicrous extent. It is a thing lowering to us, our cloth, our college, or university, that we should on entry, and for six long years afterwards, hold our present relative rank. Certain of those comprising the other civil branches are very excellent men; but many, from birth, education, and manners, are more or less socially objectionable; and it is, indeed, sufficiently disagreeable for us to be messmates and associates of the same without holding the same relative rank. From these men, indeed, are heard pretentious growls about their rights and privileges, and, from a fear of producing further jealousies and discontent amongst the same, the Admiralty are afraid to reorganise our department. It was a great mistake ever making these men officers, as in the case of many of the other foreign navies they hold a subordinate position, as they ought to do in our own. We are placed on shipboard to alleviate suffering, and to benefit the condition of the officers and men committed to our charge. Neither our interests nor our duties clash in any way with the executive, nor with any of the subordinate branches; with all we work harmoniously. By increasing our relative rank, the Admiralty will only pay a just and proper deference to our professional calling. By granting our demand, they will not increase our power. We hold in the service a post of very great trust and grave responsibility, such as is not held by any of the other classes, and in us the Admiralty have always found a body of men who have supported the executive.

I am, etc., EXPERIENTIA.

OBITUARY.

THOMAS BALLARD, M.D.

In accordance with the promise given in our brief notice on the 5th instant, of the death of Dr. T. Ballard, we proceed to furnish some account of his professional work. Born in Mayfair, London, in 1818, he received his medical education at St. George's Hospital, obtained the Membership of the College of Surgeons in 1843, and in 1862 the degree of M.D. at St. Andrew's. From the beginning of his career, it was his constant habit to take notes of all his cases, carefully restricting himself to facts and to his own observation, which most excellent plan he adopted at the advice of Sir Benjamin Brodie, whose pupil he had been. Dr. Ballard was at all times an independent observer, uninfluenced by the current theories of the day, and thus he was led to notice what he believed to be a hitherto unrecognised cause of much infantile disease and death. He first promulgated his views on this matter in a paper read before the Harveian Society of London in 1858, and designated "A New Theory of the Diseases peculiar to Infants and Puerperal Women"; and he further developed his ideas in his work entitled *A New and Rational Explanation of the Diseases peculiar to Infants and Mothers*, published in 1860. The essence of his opinions is contained in the first words of the book—viz., "that the exercise of the instinctive act of sucking, under circumstances unfavourable to the infant obtaining food, is a principal source of disease to infants and mothers". This subject continued to occupy his thoughts, and he brought it before the profession in successive papers—viz., in 1861, in a paper read before the Royal Medical and Chirurgical Society, on "A Previously Unobserved and Preventable Cause of Idiocy, Imbecility, and the Allied Affections"; in 1863, in a pamphlet on *The Convulsive Diseases of Infants;* and in 1864, in a paper read before the Odontological Society, on "The Constitutional Ill Effects of Fruitless Sucking, and the Diagnostic Value of Deformed Jaws in relation thereto". In 1871, he published a pamphlet on *Apoplexy, and the value of the Abstraction of Blood in its Treatment.* Last year, at the annual meeting of the Association in London, and this year, in a pamphlet entitled *An Inquiry into the Value of the Signs and Symptoms regarded as Diagnostic of Congenital Syphilis in the Infant*", he expressed his belief that the present doctrines of the profession in regard to that subject require revision. He insisted that many of the symptoms of so-called congenital syphilis are simply due to want of cleanliness, and are capable of cure by local measures only; and certainly his published cases, *quantum valeant*, go far to substantiate the opinion. Dr. Ballard was President of the Harveian Society of London during 1873, and was a Vice-President of the St. Andrew's Medical Graduates' Association. Hearty, genial, unselfish, full of zeal in his work, never sparing of himself, he has gone to his well earned rest, carrying with him the respect of all who knew him as an acquaintance, and the love of the many who valued him as a friend.

JOHN WILSON, M.D., Surgeon to the Royal Albert Hospital, Devonport.

Dr. John Wilson died on Thursday, July 9th, at his residence, 3, Outram Terrace, Stoke, Devonport. He was born at Wanton Walls, near Edinburgh, in 1842; was educated at the High Schools of Edinburgh and Glasgow; and completed his studies for the medical profession at Edinburgh and Paris. He became a graduate of the Edinburgh University in 1863, and since has been in partnership with his brother, Dr. W. C. Wilson, of Devonport.

Seven years ago he was appointed one of the junior surgeons of the Royal Albert Hospital, the managing Committee of which proposed the following resolution on hearing of his death.

"That this Committee is deeply sensible of the loss sustained by the hospital, the towns of Devonport and Stonehouse, and the neighbourhood, by the untimely death of the late Dr. John Wilson.

"That this is more to be deplored in consequence of Dr. Wilson's life having been sacrificed in the discharge of his hospital duties."

Dr. Wilson was engaged in making a *post mortem* examination at the Royal Hospital about three weeks before his death, in the course of which some portion of the morbific poison from the body was either absorbed by the skin, or admitted through a minute abrasion on the left arm. No evidence of the fact, however, manifested itself until the following day, when the existence of the poison was shown by the rising of a small pimple near the elbow. The poison ascended the arm, which rapidly became swollen to an inordinate size, and eventually permeated the whole system: A portion of the skin and cellular tissue of the arm sloughed away, and for many days the patient lay in a precarious condition. There was, however, evidence of the disease having been mastered, and a confident hope was entertained by his brother, and the medical gentlemen who were in attendance on him, of his ultimate recovery. Indeed, his health was becoming re-established, and one night he was sitting up in bed talking cheerfully with those around him, but next morning suddenly he sustained an attack of syncope, and in a few minutes he died, at the early age of thirty-two years.

The *post mortem* examination showed that a clot of coagulated fibrine, about two inches long, blocked up the pulmonary arteries. This was the cause of his sudden death.

JOHN MILES, M.D.

Death has lately removed from amongst us one of the oldest members of the medical profession, John Miles, M.D., late of the Charterhouse, London. In 1815, he joined, and shortly afterwards succeeded to the practice of, the late Mr. Upton of Throgmorton Street, father of the two late members of the well known City firm of solicitors, Upton, Johnson, and Co. In 1840, he was elected Resident Medical Officer of the Charterhouse, which appointment he held for a quarter of a century, when he retired from the profession to reside at Eastbourne, where he died on the 6th instant, at the advanced age of eighty-two. He was a warm supporter of several public charities, and took a special interest in those by which the widows and orphans of the members of his own profession were benefited.

JOHN TEMPLEMAN MAULE, M.D., Inspector-General of Hospitals.

Dr. John T. Maule, who died in Bath on August 9th, was the eldest son of the Rev. John Maule, and was born at Greenwich, July 27th, 1801. He graduated at Edinburgh and took his degree, February 1st, 1825, and was shortly afterwards appointed assistant-surgeon in the Honourable East India Company's Service. He served with the expedition to Ava from the end of 1825 to the treaty of peace in 1826, and received the medal for Ava. In September 1829, being in temporary charge of the station at Tavoy, in British Burmah, and assuming the government of it during the temporary absence of the Chief Commissioner, he was instrumental in quelling an insurrection which broke out there. The rebels (chiefly prisoners) numbered about 2000. For his conduct on this occasion, and for saving a large amount of treasure and ammunition, he received the thanks of the Governor-General in Council. He attained the rank of surgeon in 1838; and in 1842 he served with the expedition to China. In 1851, he was appointed Deputy Inspector-General of Hospitals of the Nagpore Force, where he remained until his retirement from the service in 1865; and he obtained the honorary rank of Inspector-General of Hospitals in 1866.

EDWARD EARNSHAW CASS, M.R.C.S.Eng.

Mr. Edward Earnshaw Cass died on September 2nd, at Goole, Yorkshire. Mr. Cass was only thirty years of age, and fell a victim to diphtheria, contracted in the discharge of his duties. Educated at Epsom, he afterwards entered at Guy's Hospital; and, after acting as house surgeon to the Eastern Dispensary in Liverpool, and to the Preston and County of Lancashire Royal Infirmary, he joined his father, Mr. W. E. Cass, at Goole, and assisted him in his extensive practice. Mr. Cass was assistant-surgeon to the 28th West York Rifle Volunteers, who headed the procession on the day of the funeral. About 3,000 people were present in the churchyard, amongst whom were the Freemasons and Odd Fellows. During the funeral, nearly the whole of the shops in the town were closed, the ships flying their flags half mast. In the fulfilment of the many duties Mr. Cass was called upon to perform, he won the respect of his fellow townsmen. Great sympathy is felt, throughout the town and district, for Mr. Cass, senior, this being the second son he has lost from disease caught while in attendance upon patients.

MEDICAL NEWS.

THE SOCIAL FESTIVITIES OF OCTOBER FIRST.

THE following social gatherings in connection with the medical schools are announced.

CHARING CROSS HOSPITAL.—The dinner of the medical staff and old students will take place at the Freemasons' Tavern, on October 1st, at a quarter past six; Henry Hancock, Esq., in the Chair.

ST. MARY'S HOSPITAL.—The biennial dinner will be held at the Criterion, Regent Circus, on October 1st, at six for half-past six; Dr. Handfield Jones, F.R.S., in the Chair.

MIDDLESEX HOSPITAL.—The annual dinner of the past and present students of the hospital and their friends will take place at St. James's Hall on October 1st, at half-past six; John Tomes, Esq., F.R.S., in the Chair.

ST. THOMAS'S HOSPITAL.—The old students' annual dinner will take place on October 1st, at six o'clock; F. Le Gros Clark, Esq., F.R.S., in the Chair.

WESTMINSTER HOSPITAL.—After the delivery of the introductory address, there will be a *conversazione* in the Board-room.

LEEDS SCHOOL OF MEDICINE.—The annual dinner will be held at the Great Northern Station Hotel on October 1st, at half-past five.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—The annual dinner will take place at the Adelphi Hotel, Liverpool, on Monday, October 5th, at seven o'clock; Dr. Ewing Whittle in the Chair.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABERDEEN, University of—Three Examiners in Medicine. Applications, 29th instant, to John Fyfe, Secretary, University Court.

ATKINSON-MORLEY CONVALESCENT HOSPITAL—Resident Medical Officer: £75 per ann., furnished rooms, and board. Applications, 7th October, to Charles L. Todd, Secretary, St. George's Hospital.

BANGOR and BEAUMARIS UNION—Medical Officer and Public Vaccinator for the Anglesey No. 1 District: £85 per annum, and fees. Applications, 13th October, to John Thomas, Clerk, Bangor.

BEDFORD GENERAL INFIRMARY—House-Surgeon: £100 per ann., board, rooms, etc. Applications, 3rd October, to the Chairman of the Weekly Committee.

BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications, 6th October, to the Honorary Secretaries.

BIDEFORD INFIRMARY and DISPENSARY—Medical Officer.

BIDEFORD UNION—Medical Officer for the Abbotsham District.

BRIDGNORTH UNION, Salop—Medical Officer for the Workhouse and No. 3 District: £97 per annum.

BRIDGNORTH INFIRMARY and DISPENSARY—Medical Officer.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon: £80 per annum, board and lodging. Applications, 13th October, to the Secretary.

CEYLON—Medical Officer to the Medical Aid, Pussilava District. Applications to R. B. Portal, Esq., 2, Idol Lane, Tower Street.

ETON UNION, Bucks—Medical Officer for the Iver District: £66 per annum.

GLASGOW MEDICAL MISSION—Superintendent: Not less than £250 per annum. Applications, 12th October, to William Sloan, Secretary, 73, Gordon Street, Glasgow.

IVER COTTAGE INFIRMARY—Medical Officer.

KENT—Public Analyst: 21s. per analysis for the first hundred; 10s. 6d. per analysis for the second hundred; 6s. per analysis beyond. Applications, 12th October, to F. Russell, Clerk of the Peace, Maidstone.

LANCASTER CASTLE—Surgeon. Applications to the Clerk of the Peace, Preston.

LINCOLN UNION—Medical Officer and Public Vaccinator for No. 6 District: £30 per annum, and fees. Applications, 6th October, to J. W. Danby, Clerk.

LIVERPOOL INFIRMARY FOR CHILDREN—House-Surgeon: £80 per annum, with board.

METROPOLITAN FREE HOSPITAL, Devonshire Square—Assistant House-Surgeon: board, etc. Applications to George Croxton, Secretary.

NEATH UNION—Medical Officer and Public Vaccinator for the Llangonoyd District: £15 per annum, and fees. Applications, 28th September, to Howel Cuthbertson, Clerk.

NEWCASTLE-ON-TYNE INFIRMARY—Assistant Surgeon.

NORTHAMPTON FRIENDLY SOCIETIES MEDICAL INSTITUTE—Assistant Medical Officer: £100 per annum. Applications, to George Knight, Secretary, 22, Cromwell Street, Northampton.

NORWICH UNION—Medical Officer for District No. 8: £75 per annum.

OWENS COLLEGE, Manchester—Lecturer on Chemistry.

QUEEN'S COLLEGE, Birmingham—House-Surgeon: £50 per annum, board, lodging, etc. Applications, 30th instant, to Walter Young, Secretary.

QUEEN'S HOSPITAL, Birmingham—House-Surgeon: £50 per annum, board, lodging, etc. Applications, 30th instant, to Walter Young, Secretary.

RATHDOWN UNION, co. Dublin—Medical Officer for the Stillorgan Dispensary District: £110 per annum.

RIPON DISPENSARY and HOUSE OF RECOVERY—Resident Medical Officer: £100 per annum, furnished apartments, etc. Applications, 30th inst., to the Honorary Secretaries.

ROYAL ALBERT HOSPITAL, Devonport—Junior Surgeon (one of three). Applications, 30th instant, to C. A. Shapcote, Secretary.

ST. FAITH UNION, Norwich—Medical Officer for the St. Faith District and the Workhouse: £44 and £20 per annum respectively.

ST. GEORGE'S HOSPITAL—Visiting Apothecary. Applications, 14th October, to C. L. Todd, Secretary.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Manchester—Medical Officer to attend patients at their homes: £60 per annum, board, and residence. Applications, 2nd October, to Joseph Barber, Secretary.

ST. PETER'S HOSPITAL FOR STONE—House-Surgeon.

SHEDFIELD COTTAGE HOSPITAL—Medical Officer.

STOURBRIDGE DISPENSARY—House-Surgeon and Secretary: £130 per annum, furnished rooms, coals, and gas, with extras (about £25 per annum).

TOWCESTER UNION—Medical Officer and Public Vaccinator for the Blakesley District: £60 per annum, and fees. Applications, 28th instant, to William Whitton, Clerk.

UNIVERSITY COLLEGE, London—Professor of Comparative Anatomy and Zoology. Applications, 31st Oct., to John Robson, B.A., Secretary to Council.

WESTMINSTER HOSPITAL—Junior Dispenser: £50 per annum, luncheon, dinner, and tea.

WEST NORFOLK and LYNN HOSPITAL—Surgeon.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BARKER, Samuel, M.D., appointed Honorary Physician to the Brighton and Hove Dispensary.

*BRAMWELL, Byron, M.B., appointed Physician to the Newcastle-upon-Tyne Infirmary, *vice* *E. Charlton, M.D., deceased.

DAVIES, William M., M.B., appointed Medical Officer to the Huntingdon County Hospital, *vice* *M. Foster, Esq., resigned.

HEDLEY, John, M.R.C.S., appointed Medical Officer to the North Riding Infirmary, Middlesborough-on-Tees.

LONGBOTHAM, George, M.R.C.S., appointed Medical Officer to the North Riding Infirmary, Middlesborough-on-Tees.

PRIESTLEY, Clement E., L.R.C.P.Ed., appointed Resident Medical Officer to the West Norfolk and Lynn Hospital, *vice* C. B. Plowright, L.R.C.P.Ed., resigned.

REID, Alexander W., M.B., appointed Physician Superintendent of the Glasgow Fever Hospital.

SMITH, William, L.R.C.P.Ed., appointed Junior House Surgeon to the Preston Royal Infirmary, *vice* Gamer, appointed Senior.

WOODS, Thomas A., M.B., appointed Resident Medical Officer to the Isle of Man General Hospital, Douglas.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

EVANS.—On September 21st, at Northampton, the wife of Charles Jewel Evans, Esq., of a son.

THOMSON.—On September 18th, at Kingswinford, Staffordshire, the wife of *John Thomson, Esq., Surgeon, of a son.

MARRIAGES.

PHILPOTS—JONES.—On the 17th instant, at St. Mary's Church, Longfleet, Poole, Dorset, John Richard Philpots, L.R.C.P., L.R.C.S., of Moorcroft, Parkstone, to Lily Mary Jones, of St. Mary's Hall, Parkstone, younger daughter of R. W. H. Jones, Esq., and granddaughter of the late Colonel Jones of Nanah, co. Wexford.

DOBSON—PIERCE.—On August 29th, at Clifton Parish Church, Nelson Congreve Dobson, F.R.C.S.E., of Clifton, to Louisa Alice, only daughter of the late R. J. Pierce, Esq., of Clifton Grove.—No cards.

DEATHS.

FERGUSON, Joseph, M.D., late of Mullingar, aged 72, on August 6th. Dr. Ferguson had held the office of Surgeon to the Westmeath County Infirmary and Prison from 1825 until about a month before his death.

HUNT, Henry, Esq., L.R.C.P.Ed., at Belford, aged 61, on August 28th.

KING, Daniel, M.R.C.S., at Bridgeland Street, Bideford, aged 28, on Sept. 12th.

BEQUESTS.—The late Mrs. Ann Blackwell, of Ellison Place, Newcastle-upon-Tyne, has bequeathed £1000, free of duty, to the Prudhoe Memorial Convalescent Home, at Whitley, Northumberland.—The executors to the will of the late Miss Hannah Brackenbury have presented a donation of £500 to the University College Hospital, from the funds left by that lady for distribution to charitable purposes.

TESTIMONIAL.—Mr. J. H. Marshall of Wallingford has, on retiring from practice, been presented with a set of solid silver side-dishes, one hundred pounds, and an address on vellum, illuminated, and bound in morocco.

THE Corporation of Basingstoke have granted a lease for ninety-nine years, at a nominal rent, of a site for an infirmary of two wards, with four beds in each; and nearly £600 has been subscribed towards the building, etc.

THE WIRKSWORTH COTTAGE HOSPITAL.—The Secretary of this Cottage Hospital has just issued a satisfactory report of the year's work, and the cost at which it was accomplished. The balance-sheet shows a satisfactory financial state; and the report, in its entirety, presents a strong argument in favour of these useful institutions.

MR. RICHARD T. GOODALL of Clay Cross has met with a serious accident by being thrown from his carriage. He fell on rough stones, and was fearfully cut on the face and head; and, by the last account, was lying in a precarious condition.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY, September 25th.—Quekett Microscopical Club, 8 P.M. (University College). Mr. T. Charters White, "On the Salivary Glands of the Cockroach".

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

A SUBSCRIBER.—The University of St. Andrew's admits yearly to examination for the degree of M.D. a certain number of practitioners whose age exceeds forty years. If our correspondent fall within that category, he should apply to the authorities of the University for information. Beyond this, we do not know any University where a reputable degree can be obtained without residence.

LOCAL OR GENERAL.

SIR,—Will you allow me to ask advice of some of our members on the following unpleasant case. The patient is just over sixty, of spare habit, has had good health, and takes a good deal of exercise; his diet is plain and regular, and he seldom takes more than a glass of sherry at dinner and one at supper. For the last two or three years he has had an itching about the anus, which soon passed off, but latterly he has been awakened and much distressed by it. Any application sets it going most cruelly. For years he has had two corns, which at times were no pain to him; then, independently of any hardened skin, one or both become tender to a degree, and then they get well for a time. He appears well and in health with these exceptions. Is the malady local or general? I think the latter. I have used every thing I can think of. Will some member give me his advice?

September 17th, 1874. I am, etc., A MEMBER.

VACCINATION IN FOREIGN COUNTRIES.

SIR,—Would you kindly give me, or through the medium of the JOURNAL get for me, some information respecting vaccination on the Continent and in America? The laws respecting vaccination, and some statistics as to the results of vaccination, referring especially to deaths from small-pox in vaccinated and in unvaccinated persons, are what I principally want. I am, etc., H. C. L.

MEDICAL TITLES AND MEDICAL ETHICS.

"H. F." asks: Is an M.D. Montreal and L.R.C.P.S.Ed. entitled to put Dr., Physician, and Surgeon. on his plate? The physician in question sells pennyworths of ointment and three-halfpenny powders, etc., and vaccinates for 1s., etc.

⁂ The practitioner referred to is entitled to use the designations mentioned; but if his practice be of the kind mentioned, it is much to be regretted.

REMOVAL OF GOUTY DEPOSITS.

SIR,—I am anxious to obtain the opinion of some of my medical brethren whether there is any reliable means by which the disfiguring deposits of gouty people can be removed. I therefore make an appeal to your subscribers to kindly give me their experience respecting this subject. I am, etc., X. Y. Z.

THE TREATMENT OF BRONCHITIS AND ASTHMA.

SIR,—If Mr. Spurgin's numerous correspondents will look at Formula No. 31, at the end of Tanner's *Index of Diseases*, or his *Practice of Physic*, they will get all the information they seek. I am, etc., PERCY BOULTON, M.D.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

AN APPEAL.

IN answer to Dr. D. de Berdt Hovell's appeal on behalf of the widow and daughters of the late Dr. T. C. Lewis, the following sums have been received by the Editor of this JOURNAL.

	£	s.	d.
Dr. Heath, Colchester	1	0	0
Mr. C. Druce, Oxford	0	5	0
Mr. W. E. Stainton Stanley	0	2	6
R. McK.	0	5	0
Mrs. Gurney Barclay, per R. McK.	1	0	0
G. H. F.	0	12	0
J. D. C.	0	2	6
Mr. W. Y. Martin, Walkden	0	10	6
Dr. Jelly, Madrid	2	2	0
Mrs. Jelly, Madrid	0	10	6
	6	10	0

SUBCUTANEOUS INJECTION OF CHLORAL HYDRATE IN CHOLERA AND DIARRHŒA.

SIR,—In the following case. I had the opportunity of testing the effects of the subcutaneous injection of chloral hydrate, successfully used by Dr. Hall in the treatment of epidemic cholera (*vide* BRITISH MEDICAL JOURNAL, August 22nd). Cases of a similar kind occur sometimes during the prevalence of epidemic diarrhœa, and the symptoms are very remarkable for their close resemblance to those of epidemic cholera; this resemblance induced me to try the new method of treatment. I may state that no diarrhœa prevails here at present.

M. P., wife of a farmer, aged 66, having gone to bed the previous night quite as well as usual, awoke at 5 A.M. on August 26th with violent pain in the bowels, followed immediately by a copious loose evacuation and vomiting. At 9.30 A.M. I found her in bed, apparently unconscious, with a sunken dusky countenance and cold surface; temperature 96 deg. in the axilla; pulse feeble, 90. She had passed frequent rice-water stools, and vomited similar matter. She had great pain in her abdomen, and agonising cramps in her legs. At 10 A.M., I injected 10 grains of chloral, dissolved in 100 minims of water, under the skin of her arms and legs; applied hot bottles to her sides and feet, and ordered her to drink only cold water. She had no urgent thirst, and her voice was weak but not whispering. The effect of the injection was almost immediate. In ten minutes the vomiting ceased, and the cramps became quite bearable, and soon the patient expressed herself as greatly relieved. At 11 A.M., the cramps were less severe; she had no vomiting; still passed rice-water stools under her; temperature 96; pulse feeble, 90. She had passed no urine since 5 A.M. At 1 P.M., the cramps were diminishing; she had no vomiting, but continued to pass colourless watery stools; temperature 97½; pulse fuller. She was ordered to take some cold brandy-and-water, which she vomited. At 6 P.M., she had no cramp, and had passed some urine under her. The purging was less; temperature 97. She was ordered to take 5 minims of tincture of opium and 10 minims of chloroform in half an ounce of water every hour. At 10 P.M., the temperature was normal, and the skin moist. There was no purging; and from this time she made an uninterrupted recovery. A slight redness and tenderness at the site of one of the punctures was the only inconvenience which arose from the injection. I am, etc.,

Sawbridgeworth, Herts, Sept. 5th, 1874. JOHN BRICKWELL.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Sept. 21st; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. J. Hughes Bennett, Tarbet; Mr. W. H. Flower, London; Dr. George Johnson, London; Dr. Geckie, Toronto; Dr. Bradbury, Cambridge; Dr. James Russell, Birmingham; Dr. Handsel Griffiths, Edinburgh; Mr. J. H. Wathen, Fishguard; Mr. T. Holmes, London; Mr. J. H. Mackenzie, London; An Union Officer, Sheffield; Mr. Wheelhouse, Leeds; Mr. Brake Marshall, Clapton; Our Glasgow Correspondent; Mrs. Jelly, Liverpool; Dr. G. H. Philipson, Newcastle-upon-Tyne; A Subscriber; Dr. J. W. Langmore, London; Mr. Wm. Fairlie Clarke, London; Dr. Acland, Oxford; Mr. G. Eastes, London; Dr. J. Milner Fothergill, London; Dr. Edis, London; Dr. J. J. Charles, Belfast; Our Dublin Correspondent; Dr. W. R. Gowers, London; Mr. J. Croft, London; Our Paris Correspondent; Mr. R. O. Backhouse, Bridgnorth; Mr. Ferguson, Edinburgh; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Mr. Barkas, Newcastle-upon-Tyne; Dr. S. Barker, Brighton; Mrs. Greene, Isle of Man; Dr. Bryan, Northampton; Our Dublin Correspondent: Mr. C. R. Thompson, Westerham; Mrs. Monckton, Rugeley; A Correspondent; Mr. Trepherd, Stourbridge; Dr. Leeper, Loughall; Dr. Percy Boulton, London; Mr. J. E. Ingpen, London; Mr. J. Thompson, Kingswinford; Mr. Victor de Méric, London; F.R.C.P.; Mr. Jones, Leicester; Mr. Alfred Ashby, Grantham; Sir William Gull, London; Dr. Jelly, Madrid; Dr. Cholmeley, London; Mr. R. Smith, Sandown; Mr. Greenway, Plymouth; Mrs. Bates, Manchester; Dr. Marten, Walkden; C. C.; A Member; Dr. T. M. B.; Mr. Giddings, Leeds; Mr. Churton, Erith; Mr. Henry Smith, London; Mr. G. Brown, London; Dr. Fox, Manchester; Dr. Mackay, Elgin; Mr. C. St. Aubyn Hawken, London; Mr. E. Owen, London; Mr. A. Clark, London; etc.

INTRODUCTORY ADDRESS
ON
THE STUDY OF MEDICINE.

Delivered at Guy's Hospital, London.

BY
SIR WILLIAM W. GULL, BART., M.D., D.C.L., F.R.S.,
Consulting Physician to the Hospital.

MR. TREASURER AND GENTLEMEN,—I feel it a great privilege and honour to be in this place to-day. The occasion which brings us together recalls vividly to my mind the time when I first entered this theatre. Though many years have passed, I feel again, in sympathy with those whom I have now to address, the dread and doubt and fear as to the future which I felt so keenly then. Everything then seemed to combine to depress and to bewilder me. Such a burden doubtless weighs upon the minds of many of you now here for the first time. It is natural that it should; for, however full of hope and ardour you may be, the uncertainty and extent of the future cannot but cast some gloom upon the present. If it be so, it is my duty to bid you an encouraging and kindly welcome, and to give you, if I can, such directions as may aid you in making the journey of your life successful, whether cheered by prosperity, or chilled by disappointment and apparent failure. Happily, true success is not so much dependent upon accident as it seems. This truth you will confidently set before you foremost, not letting any circumstances deprive you of the assurance that what is most worthy the name of success is attainable under all conditions, and often the more certainly under those which seem the most adverse. That this is true, you must have already abundantly learned by the common testimony of history, and, what is better still, may learn it by the testimony of your own conscience. You will bear in mind that the claims of your manhood are supreme; that, if you become successful doctors in the world's esteem, and fail of becoming true men, your success will be but a cheat upon yourselves and a stumbling-stone to others.

Though it would not become me on this occasion to touch too nearly upon personal and sacred subjects, still I would ask you to believe that honest work is a high and true service; that availing yourselves of every means of moral and intellectual enlightenment is an imperious duty, and especially imperious upon you, who look forward to claim the confidence of society in its highest interests.

The study of medicine is liberal and unfettered. It ranges through human nature and into nature in general. It looks at man in every aspect, and has this great collateral advantage for its followers, that, in pursuing it, they are learning something of themselves. What this advantage may be to you as medical students is not to be calculated, if it duly impress you with the fact that the laws of human health in its widest signification are part of the laws of moral and intellectual life; that indulgence, sloth, and vice, are as contrary to our lower nature as they are to the higher laws within us. It was, therefore, well said by Sir Thomas Browne, that "there are two books from which we may gather our divinity; beside that written one of God, another by His servant Nature, that broad and universal manuscript which lies expansed to the eyes of all". I assert, therefore, that the medical student has peculiar advantages; and that there is nothing in his studies to limit and contract his feelings or his sympathies, nothing to make him take a low and unworthy view of man or of his destiny; but, on the contrary, as a learned divine whose name is dear to this hospital used to remark, he who is most occupied with disease and death will have the truest idea of life and of all that contributes to it.

Your studies require constant mental direction. As, in order to get a correct image from a mirror, it must be placed evenly before its object, so you must be careful that your minds are not obliquely set to your work, but freely and openly directed to it. It is a common error with young students to think that it is only by some strong intellectual effort that good work can be done; whereas, in truth, it is more through patient and well directed labour. You may, in fact, often advantageously recall the fable of the hare and the tortoise; for, in the study of medicine, you will soon be convinced that the race is not to the swift. If the first lesson be patience—a patience which knows how to work and wait, undismayed by what seems to be insuperable, such a patience as even Newton required and practised when he tells us that he learned to keep a subject before him, and to wait until by slow degrees light dawned upon it—the next lesson is docility, a readiness to learn at any source, not fastidiously or delicately, not where it may please us, but wherever the facts lie hid; remembering that to the pure all things are pure; and that, in the investigation of truth, there is no high nor low, no great nor small; that, to use a common simile, like the rays of the sun, the rays of science enter alike every place. Who could have believed that the particles of a dewdrop and the masses of the planets are moulded and controlled by the same force; that the introduction into the human body of a small particle of matter from a cow's udder might be the means of saving thousands of human lives? We learn from these and innumerable similar instances that the highest truths lie hid in the simplest facts; that, unlike human proclamations, Nature's teachings are not by sound of trumpet, but often in the stillest voice, by indirect hints and obscure suggestions, but always with the unequalled advantage that they are unequivocal, constant, and uniform. The difficulty, however, is in maintaining the docile spirit of which I speak; in preventing ourselves from assuming a knowledge we have not; in not hastily coming to a conclusion without evidence; and not resting content in our ignorance with the fool's satisfaction that no good would come of more knowledge if we had it. The student will consider what has already been accomplished by the industry of man; what truths have been gathered on all sides; how much has been done to make the world more habitable; the victories over ignorance, disease, and pain; and he will be stimulated to enter upon his work with enthusiastic earnestness, knowing that, great as these results are, they are but the first fruits of a fuller harvest in which he may hope to take an active part.

The student's training of to-day must at every step be directed by the light and checks of science, and his acquirements must go hand in hand with that high mental culture which can alone enable him to apply his knowledge successfully. If, in what has to be done mechanically, technical rules for action can be given, it is not so when living processes have to be dealt with; for then there has to be exercised the power of judging of the value of the known against the unknown, and of deciding for or against many obscure probabilities. These are difficulties we cannot avoid, and these are the difficulties you have to fit yourselves to meet. The voice of pure science would be for waiting for certain light; but suffering humanity has stronger claims, and cannot wait. Let me, therefore, insist upon the careful mental discipline to which you must accustom yourselves, if you are to use the knowledge you acquire with safety and advantage where failure is so easy.

The medical profession stands almost alone in having to make the investigation of nature its prime duty. Others may labour in the same direction from a pure love of truth, or to relieve the tedium of life; but the medical student, having once selected his part, cannot avoid the calls of duty to urge him to his work. He has to study always with the feeling that he must as far as possible fit himself for the position of trust to which he aspires. He has to acquaint himself with the course of nature, to the practical end of instituting a course of action under given circumstances. I admit that the study of medicine is throughout full of inducements to its earnest pursuit; but there is besides the further consideration that we voluntarily undertake the task of rendering material service to society, and are, therefore, bound in honour to do that service well. Were man's physical condition immovably stable, were the equilibrium of his health constant from childhood to age, were there no accidents to cross his path, the proper study of mankind might still be man, but it would have no relation to the study of medicine. Whatever knowledge there would be of man so conditioned, it would have no object in practice. It might excite our wonder and admiration, but not our sympathy; for there would be no suffering, and no need of interference.

In the high object of medicine lies its greatest danger. The stimulus and the natural desire to act are mostly out of proportion to our knowledge and means for action. So often is it, as Goethe says, that

> "Was man nicht weiss, das eben brauchte man,
> Und was man weiss, kann man nicht brauchen."

The motive to do something is but too apt to tempt to pretence of knowledge, which necessarily perverts the science and practice of medicine. How can I, therefore, so happily impress your minds with the dangers of charlatanism as still to leave your energies fresh to actively pursue the truth; so urge upon you to neglect no means, to despise no service, which may be necessary to promote the successful operation of your knowledge, and yet guard you against ignorant and trifling interference, of which the least that can be said is that, if not injurious to the patient, it spoils the practitioner?

The study of medicine, I have said, it is difficult to limit. The ancients called the human body the microcosm, and the outer world the macrocosm; in fact, one world within another; or, as the poet puts it, "man is one world, and hath another to attend him". There are infinite and intimate relations between the two, more and more intimate, perhaps, than we in our philosophy have yet dreamt of, though in our day we have gone far. You will, in the more discursive teachings of your subjects, probably be told that a continuous line of relations connects the macrocosm and the microcosm, and you will at least learn that, if not continuous, the points of contact are too intimate and essential to admit of any distinct line of separation. The whole art of medicine is to know and to act upon these relations so as to favour what is favourable, and exclude the contrary. The air we breathe, the water we drink, the food we eat, the mechanical accidents to which we are subject, and the varied operations on the senses, show how close these conditions are, and how immediately dependent in every way life is upon them—more dependent even than is commonly perceived, for it would seem that not only is our bodily structure formed and maintained by the surrounding conditions, but even our mental state is thereby developed and its training advances.

The dogma that man's power and knowledge are limited by his observation of the course of nature, cannot be too plainly impressed upon the mind of the student of medicine. It might well be written in letters of gold in every medical theatre. It is true, we may and must believe and hope far beyond the boundaries thus prescribed, but belief and hope are but pioneers and substitutes for knowledge, and where observation can lead the way there must be no halting in our steps to follow it. The first aphorism of the *Novum Organon* sounds clearly the note in harmony with which your medical studies must be conducted, though I repeat that the limits of scientific knowledge are not the limits of hope and belief, even in the driest minds. They supplement and aid the powers of observation everywhere. The purest physicist works his way into the unknown by hope, and entertains a belief much more comprehensive than his knowledge.

The expression "order of nature" indicates a rule which, in one aspect, is the most hard and inflexible. Amongst all the ever-changing phenomena of nature, in all her forms and moods, it asserts that there is an unvarying oneness beneath. The harmonies may be infinitely varied, but the vibrating chord is unchangeable. Realise, if you can, what a paralysing influence on all scientific inquiry the ancient belief must have had which attributed the operations of nature to the caprice, not of one divinity only, but of many. There still remain vestiges of this in most of our minds, and the more distinct in proportion to our weakness and ignorance. It still opposes a hindrance to knowledge, and resists the conclusions of experience. In fact, few really believe in a fixed course of nature; none, indeed, but they who have undergone much mental discipline.

I say that, in one aspect, the course of nature is unvaried. The materials, the material atoms as we now think of them, the physical elements, as they are called, are believed to have constant qualities. What these qualities are we only know very imperfectly, but, as far as our acquaintance with them goes, they are not subject to any variation. The variations in phenomena are the variations in their combinations or the variations of their relations; but in the substratum itself there is no variation, nor any in the resultant where the conditions are the same. That is the law of nature; but obviously its course admits of infinite variations. What are the changes that can be rung on twelve bells, used to tax our boyish calculations; but what are the resultants when twelve elements combine in infinitely changing proportions, who can express? Yet still this is but a part of the problem of the play of the physical atoms, which, far from being dead things, are centres of active powers expressing themselves in various ways, of which we know at present only some, under the forms of motion, heat, electricity, and magnetism.

That the course of nature may be varied, we have assumed by our meeting here to-day. The whole object of the science of medicine is based on this assumption. It is the whole purpose of our knowledge to find out and obviate what is inimical to our systems, and to discover and promote what is favourable to us. It is difficult to form even an imperfect image of the course of nature in a living thing. What we call health, which looks so fixed and stable, is more changeable than the stability of the rainbow. Its maintenance depends upon the moving equilibrium of more forces than the mind of man can realise. The inorganic elements make a constant war upon us, and yet maintain us by the strife. Everywhere this struggle for existence has to be maintained; but in man, for the first time, intellect comes to take part in the struggle. It is the curious work of physiology to trace from the first shrinking of the lowest organisms, through all the gradations of instinct, this power which becomes intelligence in man, with the prerogative of knowing the course of nature, and of changing it for his good. When we hear the complaints of the weak and ignorant against the hardness of their lot, when we are moved in sympathy with the sufferings of the sick, let such complaints and our sympathy remind us that in the providence of God the intellect of man comes in as a corrective agent. It is both impious and foolish to stand with our backs to the storm bewailing our miserable plight, or to remain patient under it through the deadening influence of superstition, like brute creatures on a waste moorland. Even at present, feebly instructed as we are, so much has been done as to give us good assurance that the time will come when the triumph of the intellect will fully "justify the ways of God to man", not only by obviating or controlling human suffering, but by so combating the faults of ignorance and enlarging knowledge, that humanity may recognise its high destiny, and walk in the light of it. Bacon justly says "vere rem reputanti philosophia naturalis post verbum Dei certissima superstitionis medicina est eademque probatissimum fidei alimentum". We have disarmed the lightning of its destructive force, and tamed i to carry our thoughts across the world, affording an instance of what was once regarded as evil turned to good in relation to that order which man's life requires. Again, let me instance the pestilence (typhus fever), whose ravages were so mysterious that the inspired writers speak of it as one of God's sore judgments walking in darkness, and humbly consider what power the intelligence of man has gained over it. We have tracked it to its lair, have discovered its causes and their preventives. Dreadful as have been its visitations, we have learned so much of it as to see that its teachings are friendly. I am not speaking the language of metaphor. The pestilence which formerly swept over the world like a scorching wind, withering and destroying the human race in uncounted numbers, had no mysterious or supernatural origin, but was the natural product of want and squalor—a protest against the violence, selfishness, and ignorance of man. The friendly relations of commerce and the common uses of cleanliness have as entirely disarmed the pestilence of its terror as the lightning-conductor has diverted the bolt from its threatened victim. Happily, these are not solitary illustrations of man's power to modify the course of nature for his own good. Civilised life is but a varied expression of such illustrations. There still remains an unlimited arena for future work, and for that crusade against the powers of evil which is inaugurated in this and in other hospitals year after year.

As respects nature's unswerving order under like conditions, you have not only to realise it for yourselves, but at times you will have to impress it on your patients and on the public. I said just now that few persons had an uniform belief in this stern course of things. All would perhaps assert that they have, but we see too plainly both the individual and the public health suffer in many ways through the operation of the contrary feeling. The laws of health are broken on all sides with the lurking confidence that there is no attendant Nemesis to vindicate their observance; whilst at the same time the worst things are submitted to because they are regarded as natural, and therefore inevitable. Nature, to the student of medicine, is not a name of terror or superstition. With all its stupendous forces, it still conveys to his mind the idea of rightness and beneficence. As he traces the progress of living things from the dawn of time to the present, he cannot but recognise an evolution to an ever higher perfection. Fixed as is the course of nature, it does not seem to him fixed by blind necessity, but ordered so that the intellect of man may learn it and dispose it for his good. As yet we live but in the infancy of science, and who can say how much our present state is limited by our ignorance. That cannot be known until science shall reach her own limit, and has to confess that nature will reveal no more.

To come to that which will most have to occupy your time here, the course of nature in disease. You will soon learn that diseases, like other natural facts, require no peculiar mode of study. Without doubt, the personal interest we have in them does much hinder their due investigation, and surround them with a mysteriousness which is not essentially belonging to them. Man is naturally unwilling to feel himself but a part, though the highest part as yet, of the course of nature, however deeply he may be convinced that all is ruled by the wisest Providence. He desires to feel himself an exception from the common laws of nature. There is essentially the principle of fear in all living things. Its physical expression is that shrinking of a piece of living jelly when it is touched, of which I have spoken, or the closing of the eye to a particle of dust, and all the like phenomena. The fear of change is essential to the safety and growth of a living thing, surrounded as it is by causes which are calculated to invade and destroy it. It is the groundwork of that struggle for existence through which all living things have advanced, and is in another form the chief spur to the human intellect. We cannot, therefore, be surprised to find this feeling, in one way or another, too intrusive, thrusting itself between the facts and their due observation, and surrounding them with a sort of personal and exceptional mystery. It was the great merit of Hippocrates to have striven to break down this barrier of mysteriousness which prevented medical progress. But though so many ages have passed, all traces of it are not gone. The sense of mystery is so indigenous, and so constantly attaches itself to the unknown, that, although I do not for a moment suppose any well educated medical man could think that disease ever comes but through discoverable natural courses, we assume almost as much when we are satisfied not to have traced them to their beginnings. It is curious also to notice how our language still retains the terms expressive of the mysterious origin and nature of disease. The epileptic is still said to have "his seizure" though we have long known that the cause of the convulsion is but an irregular oscillation of nerve-particles transmitted to a given point. The apoplectic state is still commonly called "a stroke", though anatomy has shown it to be traceable to anything but mysterious changes in the blood-vessels. Diseases are but parts of a course of natural history, some as simple as the growth of a lichen on the surface of a rock; others dependent upon the development of some lower creature in us, "fellow-lodgers", as they have been called; some no more than irregular oscillations of nerve-tissue, as I have just said; others, the so-called inflammations, are but deeper lesions of the nutritive functions; and so forth, in every variety, according to the course of health in us, and the course of nature surrounding us, but always, as you will perceive, as parts of a natural history. Medicine has much advanced since she has freed herself from the old conception of diseases being independent entities, admitting of classification and of being labelled into orders and suborders. We are, however, not yet quite free of this, nor can we, in the nature of the case, altogether avoid definitions, though the aim of a good medical education is to teach you to use words and definitions but as a medium for arranging knowledge, not for restricting it within artificial limits, and crystallising it as it were into uniformity.

Plain as is the course of study before you; simple as are the means or its proper pursuit in a due training of the senses and the intellect; unembarrassed as you may feel yourselves with any supposed necessary prejudices or weight of authorities; encouraged with the assurance that the prerogative of genius, where it exists, is only more exact and continuous labour; and certain that success in the prosecution of medicine, as of other natural sciences, must really be dependent upon the knowledge acquired, I should mislead you did you suppose that your task was an easy one.

If it required the genius of Bunyan to outline the way of the *Pilgrim's Progress* for his moral journey, and to describe all the hindrances which would beset him from men and things through the Slough of Despond and through Vanity Fair, it will require all the genius of your teachers to direct you in the intellectual journey which you commence to-day. But I may say this much, that the course of the two journeys is parallel, and, if well pursued they end in one goal, your temporal and eternal happiness.

I have spoken much of intellectual culture as if it were the main purpose of your medical studies; and, though it is certain they cannot be rightly pursued on any lower ground, still I should remind you that there are other calls for your energies. Whatever duty you owe yourselves, there is further that also which arises, as I have before said, from the claims to be hereafter made on your knowledge. The public have a right to expect that you shall lose no opportunity of preparing yourselves for that trust which must be confided to you in practice. If, therefore, there be any among you to whom the love of knowledge, the pleasures of its attainment, and the incalculable personal advantages it bestows upon its possessors, are not motives sufficiently strong, or operate but feebly, let them remember that they are at least bound by the obligation of service and reward.

Most of you, and probably all of you, look for success in future practice. There should be a double success; your practice should be as successful to your patients as to yourselves. This is what may be fairly looked for. I do not mean that your patients can measure successful practice by recovery from disease, or should expect you to do impossibilities, but I mean that the sick man has a fair right to expect and to receive all the aid that is possible under the circumstances, if you, on your part, look for substantial reward. Whilst I speak thus, I feel I owe it to the members of my profession to assert that mercenary considerations have had but little influence with them. No set of men are more unsparing of themselves, or more openhanded in their services for public or private good. I could, did it not seem invidious, say they are unrivalled in this respect. You will, therefore, gentlemen, for the sake of your profession as well as for yourselves, maintain the position I now assert. Accumulate all the high and honest motives you can for your intellectual advancement. They will severally be wanted on different occasions, whether they be such as arise from duty to your friends who send you here, and the arguments of love and honour they include; whether from what is due to yourselves as having intellects to instruct, and knowledge to acquire; whether from the high reputation of this school, which as students of Guy's you are bound to maintain; from the demands of your profession, which justly expects that you will fit yourselves to ornament its ranks and advance its influence; or from society, which will reward and honour you if you do it service. Supplement these reasons by the highest, your duty to the Highest, Who alone can satisfy the wants of your nature, and with Whom a faithful study of your profession cannot but make you better acquainted.

In the strongest of your doubts and mistrust of things you must faithfully look beyond the clouds that oppress you, and fix your minds upon the certain truth that, however halting and tortuous, the course of nature in man tends to physical, moral, and intellectual perfection. No disappointments, no failures, how often so ever repeated, should make us turn our backs on the final purposes of our life. It has been thought that the study of medicine is apt to divert the mind from these higher considerations. I believe such an opinion to be as unfounded, as that our familiarity with suffering makes us indifferent to it. Such opinions are held only by those who are either ignorant of the large extent of our studies, or who do not sufficiently bear in mind that its range is from the "atoms that make the textures, to the hopes that make the man". As students of man, we can no more ignore the immeasurable relations of the one, than we can deny the ponderable relations of the other, for man's hopes as rightly tend to the highest and the best, as his material atoms to the centre of gravitation.

There is a necessary caution arising out of an expression I have made use of. Medicine, I assert, is unfettered in its lines of study, and, as man is its subject, this implies that whatever concerns his bodily or mental existence is open to our research freely and without prejudice. This is a position which medical science, as one of the natural sciences, must occupy. But we may not jump to the conclusion that scientific progress is so far advanced that a complete and satisfactory theory of man can at present be given. It is said that the medical profession is especially open to such hasty conclusions; that, being so largely occupied as we are with the more fleeting phenomena of existence, and seeing more of the weakness than of the strength of man, we are naturally led to ignore his higher nature and to regard him but as a very exquisite piece of material mechanism and no more. No doubt, there is this danger—Whatever part of a subject most presses upon the attention is likely to occupy it too much and to exclude that larger part which must be taken into consideration for a proper conception of the whole. But this may be corrected by reflection. The medical student, when he has learned all that is known of oxygen, hydrogen, nitrogen, and carbon, and the other chief organic elements which play so great a part in our existence, will ask himself how much still remains to be known about them. When he enjoys the fragrance of a rose, he will, perhaps, reflect on all the conditions of it, and he will find he comes to a chasm he cannot leap. At present, we know only in part. The mind is not advanced as yet so far as to know either all its weakness or all its strength.

The teachings of science are, doubtless, full of hope and belief. It is only when we think its work is so far done that we can see the end of it, that disappointment comes in, and with it a conflict between our instincts and the supposed reality. Hope and belief are the necessary supplements of imperfect knowledge. Without them, we should deprive ourselves of the best motives and surest grounds of action.

I have thus far tried to indicate, though very imperfectly, the character and scope of your work and the temper of the intellect in which it must be conducted; and now I must add a few words on the method of it. The order is, more or less, fixed by the several examining bodies to which you have hereafter to present yourselves, but understand that the method must be your own.

First of all, resolutely determine that you will never be satisfied with second-hand knowledge from lectures or books, where it is within your power to get impressions directly from the objects themselves. The necessity of this is the ground of your having to come to a medical school. Anatomy, chemistry, practical physiology, morbid anatomy, and clinical medicine are not studies of which you can acquire any proper knowledge through books or descriptive lectures. The things must be seen, handled, analysed, and dissected by yourselves. They require of you a personal and intimate acquaintance to be of any practical good. Words and descriptions, good as they are, after you have acquainted yourselves with the things themselves, are always ready to come between you and the objects, and to dim your impressions of them. Many a man, most of us indeed, go through the world without ever coming into scientific contact with the things in it. We look through the eyes of others. Our impressions and thoughts are mostly but shadows of shadows; no wonder, therefore, they are so inconstant and confused. Why, I might ask in all simplicity, have you eyes, if they are not to be trained for the purposes of your profession? why touch, if not to be used in detecting injury or disease? The senses and the mind are active powers which call for due objective exercise. Medical study is a mere pretence without it. You do not come here as passive receptacles to be filled through books and lectures with a complement of so-called knowledge which shall fit you to answer questions. Happily, the times for this are changed. Examinations themselves are passing from the verbal to the objective stage, and nothing can supply the student with so practical a stimulus in the right direction as this change. I will not say anything to lessen the value of lectures. In some points, lectures are indispensable. Many of them are demonstrations of facts, where you are shown at the same time the method of inquiry and the results of it. In a lecture, you have also the teaching by personal influence which is invaluable. Example is contagious, and descends from teacher to pupil. This accounts for those fertile spots in literature and science which spring up from time to time. This it is which gives a character to a school.

As to books, for the most part, read the most recent on the subjects you have to study. Knowledge in every department is growing fast. A book on physiology or practice of medicine soon becomes obsolete, or ought to be so. Hospital reports, journals, and year-books are, for a profession like medicine, invaluable. Their flourishing existence is a sign of activity and progress; they store up our gains and afford the soundest materials in the literature of our profession; a source from which the best treatises on a subject are produced. Nor must I forget your weekly *Hospital Gazette.* It is a very useful auxiliary in your work, as well as a means of friendly interchange of ideas between you. I hope it will be kept up with vigour.

Though most of you must hereafter be chiefly occupied in practice, all will have opportunities of adding something to the stock of professional knowledge; whilst some, we may hope, may make such larger contributions as shall add fresh honour to our school. It was in our medical theatre that Jenner read his first papers on vaccination. It was in our wards that Bright pursued his investigations, which have made his name so famous. It was in this theatre that Addison instructed many generations of Guy's students, and, through his clinical and pathological researches, left an immortal name. Nor must I forget Sir Astley Cooper, who laboured so much in the foundation of our school. May the example of such men, whose memories are so dear to us Guy's men, beget in you a lasting enthusiasm for your profession!

As the method of your studies is objective, it requires no arguments to prove what advantages may be gained by the use of those instruments which aid the sense: the microscope, the thermometer, and the sphygmograph. You will naturally avail yourselves of these and all such other means as may further exact observation, at the same time, do not fail to educate the unaided senses. Their educational susceptibility it would be difficult to limit. See all you can by the unassisted eye or the common lens, and educate the touch to its finest development. Where exact means are available and applicable, you will obviously have recourse to them. In the study of your profession, they are indispensable, but in practice we are often prevented from their use, and have to rely upon mere technical skill.

You will not study your profession in a narrow or niggard spirit. Though the centre of all your work lies in man, you must gather up your knowledge from a very wide radius if you are to understand the problems he presents. At first view, there is an apparent independence and unity in a living thing which sharply separates it from its surroundings; and of all living things, this appears most in man. Our idea of an individual commonly limits itself to the anatomical outline; but physiology teaches that no proper outline can be drawn. What meaning would muscles have without gravitation, which itself is dependent upon the size of the earth we inhabit? Draw a close line of separation between man and the surrounding air, and where is his life? What would be the scope of our knowledge without light? What constitutes the body itself but a constant relation to freshly added materials? The human body does indeed especially express the idea of unity, and its oneness is such that we may say of it as Newton said of the physical universe, "Centrum ubique, circumferentia nusquam"; but physiological studies soon show the human unit in far wider relations than those which are simply corporeal. Man is both more and less individual than he seems at first glance; more in the direction of that close relation and dependence of our organs one on another which forbids a partitioning them into separate sections for the special purposes of medical practice, and less in the direction of our surroundings and antecedents. This conviction it was which led Hunter into the field of comparative anatomy, with what honour to our profession you all know; and the same conviction must actuate you to obtain a fair knowledge of biological science, which, if it do not confer power on you as medical practitioners, will at least throw such a light on your work as will enable you to do it better.

You and your friends will perhaps say that the time here for acquiring a comprehensive, together with an exact acquaintance with your subjects, is too limited; that you do not come to the hospitals to be chemists and biologists, but practitioners. This I admit to the full; but at the same time, from the nature of the subjects themselves, and in the presence of that wider individuality of which I have spoken, and which often connects the farthest fact with the nearest detail, it must be maintained that to know one thing well you must know its relations to many others. This truth in respect to the study of man is the chiefest. Most of our errors respecting him, whether in regard to his bodily or his mental organisation, have arisen from experience gathered in too narrow a circle, and therefore fallacious. As to time, the shorter it is, the more important that the method of study should be intelligently arranged. Acquaintance with known facts, if undertaken practically and under good direction, though slow at the outset, is in the end a saving of time, because the results on the mind are more lasting and fruitful. If medical education had for its end only mechanical operations, I grant it would not require more than a technical acquaintance with details; but neither medicine nor surgery is a mechanical art, though the uninitiated public regard them so. So they regard the body as a piece of very good carpentry and joinery, and think any one of its organs, like the wheel or piston of an engine, can be mended by medicine duly prescribed. Such ignorance is easily satisfied. It is not for its satisfaction that medical studies are required at all. It very rarely occurs in the practice of medicine and surgery that merely mechanical performance can fully meet the conditions of a case. When it can, the man who does the mere mechanical operation most often will be likely to do it the best. Nor should this excellence be depreciated; but when the treatment of diseases ceases to be mechanical, we require for its proper direction a very different mental cultivation. It is the admission of this which is advancing the study of medicine, and from which we may with full assurance augur a greater future.

With all the extension of knowledge, the student of modern medicine has a far more advantageous position than his predecessors: the facts you have to learn are better known; the relations of your subjects have become more fully illustrated by collateral knowledge; the limit of our ignorance is more defined; the general public are better instructed, and, therefore, more able to appreciate sound knowledge; authority and so-called experience, the "wig and cane", are less imposing; and the well informed, though young student, begins his career of practice under favourable auspices. There is something of the spirit abroad which one of our American cousins expressed when walking through St. Paul's Churchyard and read over a shop, "Established 1726; "That would not do in my country; it would be better if it started yesterday". In proof of the vitality of our profession, and how little it is dependent upon the supposed prescriptive rights of age, I might point to the clinical labours of many of our younger members, who are daily making most important additions to practical knowledge.

To repeat, the end of medical studies is not to satisfy the ignorant, but to satisfy the requirements of science. I am conscious how unequal we are to this, but we need not be unequal to the duty it imposes. With all care you will find it difficult to keep the mind even to its duties under the disturbing influences which are necessarily associated with human suffering. He does well

> "Who, when he is to treat
> With sick folk, women, those whom passions sway,
> Allows for that, and keeps his constant way."

If I am oppressed with the feeling of having but too imperfectly indicated the spirit in which you should enter upon your medical studies, I satisfy myself with the reflection that you will be more effectually aided and directed by your teachers in the several departments. I know, from long and intimate acquaintance with most of them, that they will not fail to impress upon you the importance of applying yourselves to your work in a scientific spirit. They will insist upon the fact, that you can fit yourselves for the practice of your profession only by sound intellectual training, as well as by an accurate knowledge of details; they will caution you against substituting words for things; they will tell you that the most important part of your work is of a humble kind, consisting of an acquaintance with the proximate conditions of life, and not with the unfathomed, and perhaps unfathomable, metaphysics of it. Their object will be so to instruct you that, whilst you are not deficient in any part of that knowledge which is open to you as medical practitioners, you will still be aware of your ignorance, or what should restrain you from futile attempts, and from becoming believers in some fanciful theory or other springing out of too limited observation. The chemist will descant on the nature of atoms, and exhibit to you many of their properties; but he will have to point out, as I have already said, how much we have to assume respecting them, and that they are still very mysterious essences. The anatomist's task will be the most satisfactory, because our knowledge on that subject is the most complete, and, as our colleague Mr. Hilton has abundantly proved, admits of some *rationale*. The physiologist has a harder and drier duty in pointing out the development of the organs and the combination of their functions into an organic whole, since if he lapse—as who can at all times help it?—into theories of the "Why", he weakens the directness of observation upon which you must build, if you build securely. Then comes the pathologist on the nature and course of disease, proving it to be mostly but a part of physiology. After these, therapeutics, happily much less encumbered than formerly with a farrago of nostrums, since pathology has taught us that the processes of disease have often a conservative tendency, and that frequently our duty is to do no more than prevent violent interference. When and how we can do more, it is the great object of therapeutics to point out. Of the study of the practice of medicine and surgery, every thing around you here speaks at all times and invites your attention. The several departments of the hospital afford the rarest opportunities for acquaintance with accidents and disease in all forms; and if a knowledge of the practical parts of your profession cannot be gained here, it may be certainly said it cannot be gained elsewhere.

I look back with pleasure to the time when I had no world but the wards of this hospital, and often regret I am now so separated from them. All the success I have had springs from Guy's, and here are my early and best associations. I cannot, therefore, but feel as one of yourselves. I could wish it were again my lot to work with you, but the time is passed, and younger and stronger hands will direct you, whilst it only remains for me to cordially wish you success.

Mr. Treasurer, I cannot close this address without publicly acknowledging the great debt which our hospital and school owe to your able and devoted services. I know that you and the governors are deeply convinced that the prosperity of the two are intimately connected. My colleagues equally feel this to be so, and, speaking for them, I may confidently assure you that their best energies will be devoted to both.

INTRODUCTORY ADDRESS

ON

THE DUTIES AND RESPONSIBILITIES OF THE MEDICAL STUDENT.

Delivered at the Leeds School of Medicine, October 1st, 1874.

By C. G. WHEELHOUSE, F.R.C.S.,
Senior Surgeon to the Hospital.

GENTLEMEN,—I have often heard the question asked, "Of what use is the Introductory Address?" In some schools, it has been declared to be of no use at all, and has accordingly been discontinued; but I should deeply regret such discontinuance in this school, not only on the ground that I consider the practice, notwithstanding the triteness, to many of us, of the tale that has to be told, to be a most wholesome one, but also because, on this occasion, it would deprive me of an opportunity which, while it imposes upon me a very responsible duty, gives me also very unmixed pleasure.

As I cast my eye over the many eager faces I see grouped around me, I cannot help looking back to this day twenty-eight years ago, when I myself, full of elation at the prospect opening up before me, took my seat as a student upon the benches of this school; and I cannot forget how vividly I was looking forward to the fulfilment of hopes which, even then, had taken very definite shape, and had rooted themselves deeply in my mind. When I remember with what eager anticipation I looked forward to the address which was to be my introduction to the real work of the great battle of life, and how I drank in every word of it, I cannot but rejoice that I am permitted once more to offer that welcome to you, and to speak to you those words of encouragement which shall stimulate your energies, and induce you to address yourselves to your coming labours with that sincerity and reverence which alone will enable you to triumph over the many and grave difficulties with which you will find your path beset.

The omission of such an address would, in my judgment, be a tie loosened, a link in the social chain of our professional life so weakened, as to leave the binding influence of that chain for good so much enfeebled, that the sympathy of the learner with the teacher would be no longer that which we have always striven to make it; it would strike a blow, in the very commencement of our labours, which would tend to lessen the harmony of our future relations the one with the other.

So, gentlemen, in my own name and in the names of my colleagues, I bid you heartily welcome. Those among you who are not joining us for the first time, we welcome to a renewal of studies which have only for a time been interrupted by the vacation, with an earnest hope that you are returning reinvigorated by rest, with heads freshened and cleared by repose, and ready once more to enter with alacrity and ardour upon duties which, when I last addressed you, had perhaps begun to become somewhat wearisome at the close of a long session.

And to those who are taking your places amongst us for the first time to-day, and who, by so joining us, are also taking the most important step of your whole lives, what am I to say? Not only that we bid you heartily welcome, not only that we hail you gladly as recruits who, when we ourselves shall fall out of the ranks, will be ready to step forward and occupy our places, but that I am charged with a message to you, the responsibility of which I find it impossible to overestimate. I am here to-day more especially to unfold to you some of the leading features of your new career, to stimulate your hopes and expectations with regard to it, and to ratify and confirm the wisdom of the choice you have made in entering upon it by declaring it to be amongst the very noblest of all noble occupations; dealing with the grandest conceptions which have ever entered either the heart or mind of man, and as one which, when pursued in the true spirit of philanthropy and single-heartedness, will suffice to fill your whole after-lives with a happy consciousness of devotion to the highest objects of which human nature is capable. To you hereafter will be given the alleviation of the woes and sufferings of those who are affected; the mitigation of the sharpness of the strokes of disease; the restoration of the sick to health; and, above all, the tracking of disease, not only to its secret hiding-places, but to its very birth-place, that you may stamp it out before it has the opportunity to germinate and spread. High and noble duties, indeed, you will be tempted to say, but how are we to fit ourselves to undertake them? By strict attention, I would answer, to the curriculum laid down for you by the authorities, remembering that every point in that curriculum has been carefully thought out for you by those who know best how to direct your studies, and by following the advice of those under whose guidance you now place yourselves, and who will at all times be ready to help you to solve any difficulty that may spring up in your path.

Your first two years ought undoubtedly to be devoted to the three great studies upon which you will afterwards have to build up everything else; viz., Anatomy, Chemistry, and Physiology.

It is manifest that, without a complete, practical, and thorough knowledge of anatomy, you can never hope to become either physicians or surgeons; and, seeing that disease consists mainly in either change of structure or in disordered physiological action, or both, it is no less clear that a profound knowledge of physiology, as well as of anatomy, is an essential part of the foundation you must lay. But, though you may have attained to the highest conceivable knowledge of the structure of the body, it will be simply impossible to attain to any perfect understanding of the functions and uses of its various organs, unless you have also acquired a good and sound insight into the main laws of chemistry and chemical action.

Physiology is in reality the chemistry of organic life in action. Every thought that scintillates from your brain is the result of chemical change; every throb that accompanies the action of your heart arises from the same ultimate source; and every breath you draw would fail in its purpose if it were not directly accompanied by vital chemical changes. Hence, to understand physiology, you must be well acquainted with the more ordinary phenomena and laws of chemistry, as well as with the structure of the organs whose actions you desire to study; and, as you become proficients in anatomy and chemistry, so will you be prepared to undertake the more complicated study of physiology, and to trace out not only the functions of individual organs, but also so to group them together as step by step to rise to the perception of the harmonies of the whole as they constitute the great facts of life and health. Here, then, is clearly marked out the first great object of your student career: a knowledge of the structure and of the working of the machine which it will be your great duty hereafter to regulate and keep in order.

And now let me say a word or two as to how these studies should be conducted.

At the close of the second year of your curriculum, it will be your duty to present yourselves before certain examiners, and your examination will, of course and of necessity, be looked upon as a momentous matter; but, so far as you are able, I advise you to dismiss the thought of examination altogether from your minds. Work as if no such occasion were confronting you; work as if your one and only object were the acquirement of knowledge, and the examination will come, not as a terrible moment of reckoning, but as an occasion on which you may with pardonable pride show how much you have acquired. The watch-maker, or the engineer, as he ponders over the mechanism of the watch or piece of machinery upon whose construction he is bent, has no such fear before his eyes. He carefully surveys every wheel and lever, valve and spring, thinking only of the perfection to which he hopes to be able to bring his work; and that is the spirit of inquiry I recommend for your adoption. Your machine is the human body; pick it to pieces, fibre by fibre, and over and over again, until there is no part of it whose structure you do not fully comprehend. Rely on your anatomic guide-books only as, when you were schoolboys, you used to rely on your dictionaries and your lexicons; apply to them only when you are in a difficulty, and use them only as guides to that which you cannot understand without their help.

There is too great a tendency in the study of anatomy to rely more upon the help of the book than upon the "subject" itself, and, in times of trial, knowledge so acquired is very apt to fail. You may depend upon it, the ancient anatomists, who had no books but the book of nature, so pored over that one volume, that no thought of "examination" would have terrified them or made them nervous; and, when I hear of a man being so nervous at an examination, that he loses his self-confidence, I always feel inclined to attribute the failing to insecurity in the foundation on which his knowledge is based.

With regard to physiology, you must be more dependent upon reading than in the case of anatomy. It is a science which has only been slowly evolved, and which has grown to its present proportions only commensurately with the growth of collateral sciences, and chiefly with that of chemistry; but it is *the* science upon which medicine is built, and unfortunately it is one which until lately has been considered to be more appropriately the possession of the professor than of the student. Of late years, however, a more and more thorough knowledge of the subject has been demanded by the authorities; and I think I am not wrong in saying that, of late years also, more and more candidates have been rejected for deficiency in this branch than in the more practical one of anatomy. I, therefore, very urgently commend it to your serious consideration, and would impress upon you the necessity of constituting it from the first amongst your principal and most earnest studies.

With these three subjects, then—Anatomy, Chemistry, and Physiology—your time, during your two first winters' attendances, may be very fully occupied; so fully, that I do not advise you to enter, in any systematic sense, upon the more advanced subjects of "medicine" or "surgery" at first; these will come much more appropriately later on, and, with a good groundwork such as I have indicated, will be studied to much greater advantage.

And yet, even during your first year, you may be laying something of a foundation for their study also. You will need some change of thought and occupation, some mental recreation. Let that recreation be found in the wards of the hospital. The success of your after-career will depend greatly upon the degree to which you have educated two faculties innate in all our minds—the faculties of observation and imitation. These you cannot begin to cultivate too early, nor can you ever educate them too highly. Begin, then, from the very first; spend a certain amount of every day in the hospital; watch everything that is done there by everybody; observe for yourselves everything that goes on. Observation is one of the highest faculties for good that you possess, and will do more for you than genius in its highest flights. Observation led Sir Isaac Newton to that greatest of all physical discoveries, the discovery of gravitation. No other power than that of patient observation could have led Harvey to the discovery of the circulation of the blood; and observation, again, in the case of our immortal countryman Jenner, eventuated in that glorious discovery of vaccination, by which the direst scourge that ever afflicted the human race has been almost, and is capable of being perfectly, eradicated and stamped out of existence.

Observe, then, everything that goes on in the hospital around you, even though you may not in the least understand much of what you see; a time will come, later on, when you will be abundantly repaid, and hours apparently inactively spent now will prove to have been the seed time from which a rich and abundant harvest will spring up hereafter. Watch every manipulation, whether medical or surgical, that you see; imitate every one of them, until you are able to produce such results with them as you see to follow in the hands of others.

You will learn how the physician brings all his senses to bear upon every fresh case that is presented to his observation; you will see how he notes with his eye the wan and wasted aspect of a patient; how, by his senses of touch and hearing, he appreciates the condition of the circulation; how his hand has been educated to elicit, by palpation and percussion, the condition of internal organs; and, whenever you have the opportunity, imitate all you have seen him do; then think what each action has taught you; your thorough appreciation of it all will come later on, but in the meantime you will be acquiring the rudiments of knowledge which, in later times, will be of great value to you.

In like manner, watch and, as far as you can, imitate all that you see the surgeon do; the application of ordinary dressings, bandages, and all kinds of surgical appliances; so that, when it comes to your turn in after time, they may not be altogether unfamiliar to you; and so you will pick up, almost as a matter of recreation, information and handiness which, in the more advanced stages of your career, you will greatly rejoice that you possess. Sir Astley Cooper used to be in the habit of assuring his pupils that a man's hands, in the doing of little things, often did more to advance his reputation than did his head; and I can speak from personal observation that this, at all events, is very often so, and that, though a man may have a profound and scholarly knowledge of the pathology of internal diseases, he may mar all by the fact, that he is unable to use even simple instruments with facility and ease. All these minor operations you may watch over and over again as performed by others, until at last you will come consciously to feel that you could do them yourselves. Then, whenever an opportunity occurs, seize it with avidity, and never forget that it is practice, and practice only, that will give you that ease and facility of manipulation which, when it comes in aid of sound judgment, will bring you the inward consciousness of surgical superiority.

In this manner, you will most profitably spend the two first years of your studentship, and, short though that time may appear to you, it will suffice to give you such an insight into and knowledge of the subjects required for your primary examination, that you will pass through that ordeal, not only with satisfaction to yourselves, but with credit also to your school—a matter of which I trust you will never altogether lose sight.

This portion of your studentship over, a firm and solid foundation having been laid, the time will come when you will associate yourselves more closely with those whose duty it will be to aid you in raising the superstructure whose building is to be henceforward the labour of your lives. So long as you remain with us, we shall help you patiently to pile stone upon stone, until the edifice is simply raised. When it is so far completed as to be ready for occupation, you will leave us, and then will commence the time of the real trial of its strength. If its foundation have been laid in the sand, and its superstructure have been insecurely wrought, it will need but few of the buffetings and storms of real practical life to bring it with ignominy to the ground; but, if the work, so far as it has gone, be substantial, if the foundation have been laid in the rock, no matter how fiercely the winds may howl around it, it will stand unshaken by them, and year by year the artificer, proud of his work so far only because of its solidity and strength, will commence, with loving hand, to beautify and adorn it. Column and carving, turret and pinnacle, tracery, fretwork, and moulding, will be added as years roll on, until at last, when the mists of age begin to dim the eye, and its feebleness to paralyse the hand of the builder, he will lay aside his tools with conscious pride in his goodly work, and will hand it on to his successors, assured that he, at any rate, has not been an idle and unprofitable labourer, and that, though his hands may not have been permitted to conclude the work, they may at least have added new beauties to it, and have left it the comelier an edifice for his labours.

In the building of this structure, it will be our duty, as your teachers, more especially in the branches of Medicine, Surgery, and Midwifery, to give you every assistance that lies in our power, and you will find in the hospital abundant material upon which we may work together. Our province will be to explain, to expound, to guide; yours to observe, to inquire, and to question for yourselves, never hesitating to come to us with your difficulties, or to ask for any information you may need to help you.

In the first instance you will find much that will appear to you to be inexplicable, and difficulty after difficulty will arise in your path, but by patient perseverance you will overcome all these. In the first instance, too, you will undoubtedly find much that will greatly distress you, and some things that will probably disgust you, but these will be amongst the first difficulties you will surmount, and all that is needed, so far as they are concerned, to enable you to do this will be steady perseverance, and a firm conviction of duty.

We must ask you to be very tender and forbearing with the sick, remembering that they are conscious sufferers, and are often placed under very trying and painful circumstances; to look with kindly gentleness upon many a caprice which you might otherwise be inclined to censure, remembering that they have need of every comfort and consolation we can afford them. They are the material upon which you have to work, and their diseases and distresses are your study. Ask yourselves, what are these diseases? and I will give you an appropriate answer in the beautiful and graphic words of Dr. Latham.

"They are not abstractions; they are modes of acting different from the natural and healthy modes; modes of disorganising; modes of suffering; and modes of dying; and there must be a living sentient body for all this. This body must be your study, and your continual care, your active, willing, earnest care. Nothing must make you shrink from it. In its weakness and infirmities; in the dishonours of its corruption, you must still value it, still stay by it; to mark its hunger and thirst, its sleeping and waking; its heat, its cold; to hear its complaints and to register its groans. And is it possible, you may ask, to feel an interest in all this? Aye, indeed it is, a greater, far greater interest than ever painter or sculptor took in the form and beauties of its health. And whence comes this interest? At first, perhaps, it seldom comes naturally, a mere sense of duty must engender it; and still, for a while, a mere sense of duty must keep it alive. Presently, the quick, curious, restless spirit of science enlivens it, and then it becomes an excitement, and then a pleasure, and then the deliberate choice of the mind."

Thus medicine, surgery, and midwifery will come, in the latter part of your student life, to occupy your attention almost exclusively. If you have made yourselves thoroughly masters of the more preliminary branches of your education, you will never forget them; you will find yourselves making such constant reference to them, that they cannot escape from your memories; but you will only refer to them as guides and helps in your attempts to unravel the mysteries of disease and death, and as pointing your steps in the best directions in which to fight and conquer them, or lead them to a safe conclusion; and so, at length, you will become so absorbed in your work that you will forget its drudgery, and will learn to delight in it for itself alone.

Now, let me for a few moments try to inculcate what this feeling will be, by asking you to look back upon the steady advances that have been made in medical knowledge during the generation of which, for a moment, you may regard your teachers in this school as the representatives.

The study of anatomy is perhaps the most ancient of any that you will be called upon to undertake, and though many of the structures of the body are now better comprehended than they were fifty years ago, it is not because the structures themselves were not well known to our forefathers, but because we possess, if not one sense more than they did, at least one sense so infinitely intensified, that its power in our case is more than quadruple what it was in theirs. The microscope may be said to have been invented in 1820, and, from that time onward to the present day, improvements in its construction have followed so rapidly one upon another that it seems now as if there were very little left to desire in the way of improvement. And what has the microscope done for us? It has unfolded the mysteries hidden in ten thousand pages in that section of the book of Nature which it is our province to study and elucidate. Whereas our fathers knew only the relative position and outward differences of structure of the various organs of the body, we can penetrate into the secrets of their very ultimate construction; and myriads of facts which could only be puzzles to them, are scientific facts, clear as daylight to us, and, read by the light of the bright illumination thrown on them by our now nearly perfect instruments, cease almost to be marvellous in our eyes.

Even since I have held the honoured position of a teacher of physiology in this school, the facts added to our physiological knowledge by the aid of the microscope may fairly be called innumerable; and, as I read the brilliant address delivered only a few weeks ago by Professor Redfern, in the biological section of the British Association for the Advancement of Science at Belfast, and compared the state of the science now with what it was twenty years ago, I was constrained to think that no instrument of greater utility than the microscope, not even the locomotive or the electric telegraph, had ever been given to man. By the aid of this wonderful instrument we see now, clearly and brightly, so many things that could only, in former ages, have been guessed at as vague probabilities, that we no longer hesitate in practice to act upon its teachings, so that it has become to us, not only a powerful aid to the science of our profession, but a powerful motive principle to our practical advancement also.

The same also may be said of our increased knowledge of electrical phenomena. In my early days (I do not think I am doing any dishonour to my teacher when I say this), these phenomena would be best described as an "interesting chaos"; but, by the labours of Wheatstone, of Faraday, and of a multitude of other untiring workers, they too have been so mastered, and marshalled, and harnessed as steeds to the chariot of our profession, that we drive, by their aid, through paths that were absolutely unknown in former days. Our forefathers beheld the nerves of the body with wonder and delight, as channels along which the "animal spirits" might flow to and fro between the system and the brain, but the microscope and the study of electrical science have given us not only a much clearer insight into their structure and arrangement, but have also thrown a flood of light upon their vital properties and functions.

And what the microscope has done for anatomy and in aid of physiology, the stethoscope, the ophthalmoscope, the laryngoscope, and a number of other instruments, have done for medicine. Diseases, formerly only guessed at by their general symptoms, are now recognised and understood with clearness, and are catechised so closely, and in such minute detail, by instruments of scientific precision, that it is scarcely possible for them to elude the search of the intelligent physician. Who, fifty years ago, for instance, would have dreamed of looking into a patient's larynx in search of ulceration, or of warty growths, or obstructive diseases? or, who would have believed it possible that the fundus of the eye could be so illuminated and explored as to give us actual optical demonstration of the physiological condition of the brain, and of structural changes taking place in its interior?

With the stethoscope we are able to read, almost as plainly as if we could see them, changes which are taking place in the interior of the chest, and to gauge them so accurately that when, at last, fate does give us the opportunity to see them, we very generally find that there is little left in the way of information that sight could have added to our knowledge. And so with the delicate exploring trocars of the present day; the exploring scoop; the test-tube; and such like appliances, the physician is enabled not only to ascertain the condition of internal parts, but to verify his reasonings upon phenomena arising out of otherwise hidden conditions.

And while medicine has been advancing with such sure and steady steps, surgery has not been standing still. In surgery our age may certainly lay claim to the loftiest achievements that have ever graced the annals of our science, and we may look with pardonable pride upon many a victory won from the old domain of the so-called "impossible".

First and foremost in the roll stands out the inestimable blessing of anæsthesia. Even I am old enough to remember the time when a surgical operation was a terrible ordeal indeed, and such as you will now very rarely be called upon to witness; and when, aided only by the consummate bravery which agonised nature can summon to her aid when fighting for life, the sufferer braced his energies to pass unaided through the mental and bodily strain of the torture. Such, indeed, were trying times both for the surgeon and for his patient; and, when I recall some such scenes as I witnessed in my early days, I can find no words in which adequately to paint the change, or to sum up what should be our gratitude to those brave and noble men who, fearless alike of the unknown dangers of the practice, and the obloquy attendant upon failure, yet, like the late Sir James Simpson, fought out the early battle of anæsthesia for the world, and carried it, in the face of danger, prejudice, and fanaticism, triumphantly to victory. Lulled by the beneficent influence of the vapour of ether or chloroform into the more than insensibility of sleep, a patient now willingly resigns himself to that from which, in former times, the bare thought of the agony to be endured has often sufficed to deter the very bravest, and one thought only of danger remains to carry disquiet into his heart.

Now and then, but, in proportion to the frequency of its use, with wonderful rarity, an anæsthetic, as you know, acts fatally. Of this danger, and its risk, every one must take the responsibility on his own shoulders. So long as sound judgment is exercised in the selection of the anæsthetic for each case, and every possible care is taken in its administration, we fulfil all the duty that can reasonably be claimed of us; and, in my opinion, we should be as little justified in withholding chloroform from the thousands to whom it is perfectly safe, because it proves unsafe here and there to one, as we should in saying that railways must be abolished, because, now and then, some one of the many thousands who travel loses his life in an accident.

Next on the list comes the great surgical triumph of our age, the operation of ovariotomy, by the help of which, many sufferers who, in former years, were resigned without a struggle to their fate are now rescued, and restored to the enjoyment of perfect health. For years after its first introduction into England by Dr. Clay of Manchester, so great was the risk attending its performance supposed to be, and so uncertain the diagnosis of the cases in which it was thought to be admissible, that surgeons of all ranks united in condemning it as an unjustifiable proceeding. I myself have heard it denounced in unmeasured terms by one of the leading surgeons of this town as a proceeding too cruel and barbarous ever to be admitted within the pale of legitimate surgery! and yet, with persevering bravery, such men as Clay, Spencer Wells, and Keith, have not only shown it to be a perfectly justifiable operation, but are able to point with pride to their records of hundreds upon hundreds of successful cases!

To ovariotomy may be added lithotrity as another of the triumphs of the age. A hundred years ago, nearly every sufferer for calculus was doomed, from the very commencement of his complaint, to a lingering and painful death. Only here and there a single surgeon could be found who would dare to operate for the relief of such cases; and equally few patients dared to submit to the operation. Then came a time when, the magnitude and growing frequency of the evil being urgent, the operation of lithotomy came to be more deeply studied, and more general, and finally took its place as one of the most brilliant achievements of surgery! But it remained for the surgeons of our own day to show that the disease may be eradicated by a more simple process, and that, by crushing the stone *in situ*, the sufferer may often be relieved with comparatively little risk, and with so little pain that he does not even need the aid of an anæsthetic.

In the resection of diseased joints where we should formerly have amputated limbs, in the freedom with which we venture to explore their cavities with the aspirator, in the manner in which, with the same instrument, we venture to unload the serous cavities of the body of the products of disease, not holding either the peritoneum or pericardium too sacred for our reforming energies, I might point to the advances of the surgery of our day; but I may not stay to dwell so much upon individual features in the picture I would paint for you as upon its broader outlines.

Amongst those broader outlines, there are two which stand out so prominently, that I cannot consistently pass them over without notice. We can scarcely, perhaps, claim for them that they are absolute novelties, for the objects at which they aim are of such manifestly great importance, that, so long as surgery has existed as an art, so long have men's minds been searching in their direction. But to their development and general application, we may fairly and legitimately lay claim as amongst the surgical advances of our time.

One of these is the attempt that has been made by means of the antiseptic method of dealing with wounds to render them as harmless as is possible. That we have succeeded in this as perfectly as we have in our endeavours, by means of anæsthetics, to render operations painless, we can hardly claim; but that much has been done to lessen the dangers attendant upon certain of the gravest accidents and surgical complications we ever meet with, cannot be denied. To those of us who have been in the habit, for instance, of seeing much of serious compound fractures, and have noted the restraining influence of carbolic acid treatment upon the exhausting discharges which usually accompany such accidents, the gain, I think, will seem a very clear one. I myself am certain that, by its aid, I have saved many joints that must otherwise have perished; and, every now and then, I am very proud when I receive a hearty grasp from a hand which, had it not been for antiseptic surgery, I feel sure I must have sacrificed. Then, again, the very appellation "antiseptic" points to another class of effects which should be of unspeakable value in the treatment of surgical ailments. Unfortunately, however, we shall still be compelled occasionally, notwithstanding all our care, to point out and explain to you the effects of septic influences on the body; and I fear it will be long ere you are deprived of the opportunity of studying the symptoms and treatment of such diseases as pyæmia, septicæmia, hospital gangrene, and such like. Nevertheless, though antiseptic surgery may not have accomplished all we could wish, nor, indeed, all that has been claimed for it by its advocates and supporters, it has done a great deal, and will carry the name of Joseph Lister, not only to the farthest ends of the civilised world, but to remote posterity, as one of the greatest of the many great conservative surgeons of the nineteenth century.

And, as we have succeeded in rendering our operations painless, and have made a bold stroke in the hope that we may render them as harmless as is consistent with the knowledge of our day, so also we have succeeded in rendering them, when we wish it, for the most part absolutely "bloodless". I do not say that it is always advisable to do this; indeed, I would rather say distinctly that it is *not*; and yet there are so many delicate operations, in which the presence of blood in the wound, by obstructing our vision and marring the precision of our work, proves a serious drawback, that we hail with great satisfaction the power we now possess of rendering them "bloodless", at all events, at will.

And now, gentlemen, I think I have shown you that, if our colleagues the physicians are advancing with rapid strides, we surgeons have not been standing still; and it only remains to me to endeavour to point out, as far as I am able, the paths by which you, as a rising generation, may continue to carry on the banner of our profession to still greater and more ennobling victories.

We, of the generation of which I must call myself in some way a representative, must rest content with the laurels we have already won; we have passed the summit of the hill of life, and some of us are nearing the level plains through which flows the great river on its onward way to the ocean of eternity; our eyes are growing dim, and our hands are becoming feeble; but you, who are rising to the ascent with all the energy and freshness of youth to give elasticity to your steps, who see no clouds in the far-off distance even of middle life, have still noble work before you to do.

We, who are wearying with the fight, are preparing to hand on the banner to you, that you may carry it into new fields, may win new victories for it, and inscribe it with yet further triumphs; and, if you ask me whither or in what direction I would advise you to look, I would point to the regions of "preventive medicine".

In those regions, you will find an almost uncultivated field for your energies, and, as it has ever been more commendable to prevent than to cure evils, so, in proportion as you succeed, will your work be of greater interest and value. Consider for a moment how vastly more numerous are the illnesses which we are able to prevent than those which we are able to cure. How the thought brings to our minds at once such subjects as those of drainage and ventilation; of our water-supply; of overcrowded dwellings, and especially of schools; of the manner in which, in these institutions, the brains of our children are often, in defiance of the very simplest laws of health, exhausted, whilst their bodies are immured in rooms charged with an atmosphere which is poison; of impure and unwholesome feeding; of ill-assorted marriages; of the spread of infectious and contagious diseases, which a little knowledge of the simplest kind would check: all of the most vital importance to you as the future guardians of the public health.

I think there can be no doubt that the two greatest evils which afflict society in the present day, and which lead to the most widely spread and devastating forms of disease, are "intemperance" and that other "social evil", which fastens upon the youth of our day with such cruel talons, and which stamps the life of its victims with such a withering curse, that its sting is felt, not only so long as the sufferer's own life shall last, but continues to live on in unabated, aye in tenfold, vigour in the blood of his children and of his children's children.

And what of intemperance? Can we, as a profession, do more than others to aid in checking the spread of this great national evil? Is it possible for us, as a body, to exert any beneficial influence in arresting its progress? I think it is. Whose voice is likely to be so influential in a family as that of its truest friend, especially when speaking with authoritative warning?

Upon some of the elder members, perchance upon the father or even upon the mother, this dreadful vice may have fastened with a grasp which all our influence may be powerless to unclasp, and from such cases we can only retire disheartened, discomfited, and saddened; but to the younger members of the group we may still appeal with more of hope; to them our voices may still come home with deterrent power; and, if we can only assure them, not only upon grounds of morality, but can also show them, upon sound professional reasoning, that intemperance and comparatively early death are linked together with unfailing certainty, we may still do much to lessen the evil of such indiscriminate and thoughtless indulgence as may finally pass into confirmed and inveterate habits. I would ask you never to forget how easy it may be, by misdirected and unwise advice, to foster an indulgence, or to create a desire for that which unfortunately comes clothed with only too great a fascination.

Let me urge upon you, while you have the opportunity in the wards of the hospital, to note the effect of stimulants in every case in which they are prescribed. If you will do this, I venture to hope that, before you leave us, you will have learned their true value, and will have assigned them their proper places as medicines in the list of the arms with which you will go forth into the world to do battle with disease.

Many of us, in times past, have been, and some of us are still, accused of being too much in the habit of both recklessly prescribing stimulants and of fostering the idea that they form an essential part in our aliment; and it is against this teaching that I would warn you. That they are often of the greatest value, and to be replaced by no other remedies, I am quite ready to admit; that, without their aid, many a case now saved would sink hopelessly away, we can none of us deny. Ammonia, ether, and such like stimulants, are very good sometimes, and sometimes are even of greater value than wine or brandy; but to say that they can always take the place of these last is a doctrine against which all experience is emphatic; and this, I am sure, will come readily home in time to every one of you.

And what shall I say of that other evil I have ventured to name? Of how many frightful maladies would the world be rid if we could but put our heel on that hydra-headed monster "syphilis", and stamp it out of existence! How many hundreds, aye thousands, of sufferers would learn to bless our endeavours, if they only knew to what source rightly to attribute their ailments! How many of these ailments baffle our utmost skill! How many existences are made miserable from the cradle to the grave, and yet how easy it is for us to stretch out a helping hand in this direction!

By some far-seeing philanthropists, the Contagious Diseases Acts were promulgated as an antidote; but a cry of horror has been raised against such legislation throughout the land. You will hear these Acts condemned in terms of unmeasured hatred and denunciation; but, long before you leave us, you will have learned to look upon them as amongst the most powerful agencies for good in all the armoury of Public Medicine. Society has raised its voice in almost universal chorus against them, and a cry of shame and horror has swelled up through all the land concerning them; but it is raised in ignorance, and, though fostered from most worthy motives, needs only the light of a little knowledge, such as that to which your eyes will presently be opened, to dissipate the mists of fanaticism by which it is embittered, and to hush it to the silence of death. God forbid that I should seek to further any step that should tend to lessen the purity of English women; but we know only too well how deeply changed is the nature of those to whom, and to whom alone, these Acts can apply, and how infinitely below all ordinary standards they have fallen; and surely we are bound by an inflexible chain of duty to endeavour by every means in our power, in the interest of those who are yet unborn, to check the spread of the illimitable evils which this vice is capable of inflicting upon society.

They who hold that the evils which men bring upon themselves by their sin should be justly borne by themselves, as their punishment, are undoubtedly right; but they have no knowledge—they can have no knowledge—of the dreadful ramifications of the evils it is here sought to check. They forget that the effects of the sins of the fathers are to be carried by even the third and fourth generations of their children; and it is on behalf of these, the purely innocent, the yet unborn sufferers, that we should pledge ourselves to fight. You will see, during the term of your attendance at the hospital, how dreadfully common is the picture of little children brought into the world to pass through a long and weary martyrdom of miserable life; in whose eyes the light of heaven is never destined to shine; whose very forms and features are so hideously distorted as to render them a byword among their fellows; whose bones, diseased and rotten from their birth, can never assume even the common proportions of health; whose digestive organs are unable to deal with food of even the very simplest character; whose days, as long as they live, will be days of misery, and their nights only prolongations of the wretchedness to which they have been doomed; and to whom, at last, even death will come as a welcome and long looked-for friend, the only friend who is able to release them from the unceasing misery they have been compelled to bear in retribution for the sins of others. Gentlemen, I grant you this is a dreadful picture; but it is not overdrawn; not a shadow has been painted into it that you will not see over and over again with a frequency well calculated to appal those who will take such things to heart.

And, lastly, as I have said, you will find great scope for your energies, and a wide field in which to cultivate the highest usefulness of your profession, in tracking infectious diseases to their source, and in devising and elaborating the means by which they may not only be temporarily abated, but may, in the end, be altogether removed from amongst us.

Let your thoughts rest for a few moments upon what has already been effected in this direction. Look back upon the history of some of the greatest of this class of scourges. There was a time when, year by year, the whole earth was decimated by small-pox, and no human being was ever safe from its ravages; and where is that pestilence now? Buried in the grave of Jenner, or only rising up from time to time, a feeble shadow of its former self, to remind us of our want of watchfulness, our ignorance, or our fanaticism. Where is the old endemic plague of ague, which was wont, in years gone by, to lay so heavy a tax upon the population of our low-lying districts? Gone, under the system of drainage with which advancing science has taught us to unload the soil of its superfluous water charged with the products of decaying vegetation. There was a time when the plague and cholera were our regular periodical visitors, and when the whole community was left unguarded from the consequences of their dreadful visits. Of the former we hear comparatively little now; and the latter, though still unvanquished, and falling upon us from time to time with unabated virulence and too dreadful slaughter, is so much better understood now than it was in former years, that it is rarely permitted to reach us in its old epidemic form. Guarded by the wonderful power of the electric wire, no sooner does an outbreak happen in any region of the world, than every other part of it is so warned that it is up in arms to isolate it and prevent its further spread. Tracked in its origin at home to a foul or polluted water-supply, the whole deadly current may, if we so will it, be cut off at once; and our wells and springs may be so well guarded that, with reasonable care, the enemy can scarcely effect a lodgment in them; and so, to a great extent at any rate, we hold this pestilence too at arm's length.

But how about typhoid fever, diphtheria, scarlet fever, and a host of other septic and zymotic diseases? Are they not still so rife amongst us as to remain a standing and a lasting stain upon the medical knowledge of our day? Are they incapable of eradication? or are we ignorant of the sources whence they come? We know that they are the results of decaying animal matter, and yet we so dispose of our sewage that scarcely a stream in the land remains unpoisoned by it. Are we not, moreover, year by year, so saturating our soil with impurities of every kind, that a pure and uncontaminated spring must, ere long, become not only a rarity, but almost an impossibility?

Do we not shun, and that most wisely, the presence of those afflicted with infectious diseases so long as they remain amongst us; and yet, no sooner are they removed by death, than we are content, with tender sympathy indeed, and most loving care it is true (but with how much wisdom?), to lay them in the ground that they may slowly dissipate their terribly infectious gases through the soil, and saturating that, may thereby recharge the rains of heaven, as they filter through it, with all their virulence and terrible power of reproduction, in the systems of the living. I am not the thorough and entire believer in the disinfecting and depurating power of the soil that I once was; for terrible examples of its failure have, in my judgment, come under my notice.

Sir Henry Thompson has lately sounded a note of alarm on this subject; and though, for the present, it may fall upon ears unheeding or unsympathetic, I yet venture to think that, in time to come, his warning will be enforced by stern necessity, and that some better method of disposing of our dead will take the place of the burial so honoured and revered by us.

That cremation would succeed in protecting the living from many of the evils which, of necessity, result from the slow and ghastly decomposition of the dead who moulder in the grave I cannot doubt; but many years, I fear, must elapse before the public mind can be prepared for so great a change. It is impracticable, say some. Where, then, is the engineering science of our day? It is unholy, say others; but wherein consists the unholiness? What can it matter whether the body be destroyed in an hour or in twenty years? Destroyed it must be at last, and reduced to its simplest elements; and whether in the bosom of the earth, in the trackless paths of the ocean, or in the fiery flame of the purifying furnace, can matter little, so only that it rests "in sure and certain hope of a joyful resurrection".

NOTES
OF
EXPERIENCES IN EGYPT.

By W. H. FLOWER, F.R.S.,

Hunterian Professor of Comparative Anatomy in the Royal College of Surgeons of England, etc.

IV.—The Nile Voyage.

Few English who pass a winter in Egypt are content to remain the whole time at Cairo. The interest that has been awakened in the ancient history of the country must naturally make every one anxious to see the still remaining evidences of the wonderful civilisation of the Nile valley three thousand and more years ago. Almost every trace of the mighty cities built in the delta in Pharaonic times has disappeared. At Heliopolis, "the great Temple of the Sun, the high priest of which was father-in-law of Joseph, and, in later times, the teacher of Moses",* is now represented by a solitary obelisk standing, when we saw it, in a field of sugar-cane. Of the grandeur of Memphis, a single colossal statue of Rameses II lying on its face in a pool of water is all that remains. When the population of a district continues, and new towns rise up in the place of old ones, the fragments of the earlier structures are used up in their successors. This is a far easier process than digging fresh materials from the quarries. Thus Cairo has absorbed the remains of the great towns near which it was founded. Even the Pyramids were stripped of their outer casing stones to aid in the construction of the mosques of the Arab conquerors of Egypt, though the mountainous massiveness of their solid interior fortunately resisted the attacks of the new builders.

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* By far the most truthful, graphic, as well as poetical, descriptions of Egyptian scenery, are those by the Dean of Westminster, in the introductory chapters of his *Sinai and Palestine*, a work which no traveller in the East should be without. To obtain a knowledge of the customs of the people, ancient and modern, the standard works of Wilkinson and Lane are indispensable. Among numerous recent books, Zincke's *Egypt of the Pharaohs and the Khedive* may be mentioned as containing interesting and original sketches of the condition of the country and inhabitants; and Mariette Bey's *Itineraire*, and *Aperçu de l'Histoire d'Egypte*, which may be obtained at the Museum of Antiquities at Cairo for five *francs* each, will be found most useful travelling companions.

Many of the old buildings of Upper Egypt have, happily for us, met with a better fate than their contemporaries of the lower country. When ancient Thebes fell from its high estate, no modern city took its place. The mud of the river-banks supplied all that was needed for the habitations of the dwellers of the squalid Arab villages now scattered over the vast plain which once formed the site of the hundred-gated city. Hence there still remains an assemblage of mighty ruins, grander than can be found collected in any one spot on the earth's surface. No one going to Egypt should think of leaving it without visiting Thebes, and Thebes is only one of the many places of supreme interest met with along the banks of the Nile. Beni Hassan, Abydus, Dendera, Edfou, Esneh, Kom Ombos, Philæ, Abou Simbul, and many others, all have their tale to tell of wonder and beauty.

For visiting Upper Egypt and Nubia, none of the ordinary modes of travelling familiar to Europeans are available. There is not a single hotel, or place where board and longing can be obtained anywhere above Cairo, except by roughing it to an extent which would not suit those for whom these notes are written. A system has, however, gradually developed itself by which all the conveniences and even luxuries of European civilisation can be enjoyed in the desert of far-off Nubia. The traveller moves on from place to place along the river in a floating-house, which he never need leave for long, as everything of interest lies within easy reach of the banks. Of all modes of travelling, this is, perhaps, the most enjoyable. With agreeable friends, a well furnished, comfortable dahabeah or sailing-boat, an attentive and intelligent dragoman, a good crew, and plenty of time at disposal, it leaves nothing to be desired. One can go from Cairo to Wady Halfeh at the second cataract, about eight hundred miles, without more fatigue or trouble than if you were staying all the while in a house by the seaside. Occupations can be continued as one moves along without interruption occasioned by packing or unpacking, and all the disagreeables and uncertainties incident upon arriving at and leaving strange hotels; there are no payments of any kind to make, all being contracted for before departure. It is a perfect rest from nearly all the little cares and troubles of the world. Besides the objects of paramount interest to which I have already alluded, there are endless minor ones: the varied scenery of the river-banks, the inhabitants, the bird and animal life, the navigation of the boat, even the uncertainties of the journey add to its zest. A fair wind may carry one fifty miles in a day, or there may be many days without any appreciable progress. There are all the advantages of a long sea-voyage without the drawbacks mentioned in the first chapter. The sleeping-cabins are light and airy; the weather is almost always fine, so that nearly the whole day may be spent on deck, and the variety and exercise of a walk on shore can generally be got at some time or other in the twenty-four hours.

Of course, as in everything else in life, there are drawbacks even to the pleasures of a Nile voyage. It is possible that, notwithstanding all the careful arrangements and precautions taken before starting, all may not be right with the boat or equipments, and, when once away from Cairo, there is no chance of remedying the defects. Then, especially to those who have near and dear relations at home, there is something trying in the isolation from them. This is, thanks to the improved Egyptian postal system, very different from what it was in former years. Regular post-offices are now established at all the principal towns along the Nile banks as far as Khartoum, to which letters will be forwarded from the central office at Cairo, according to the instructions given by the traveller, and from which they can be despatched with a considerable, if not absolute, certainty of their being delivered. Out of nearly a hundred letters which we posted to England last winter from many parts of Egypt, one only did not reach its destination; and, of all that were sent to us, I am not aware of any having been lost. There are also telegraph stations at every town of importance. This is a very great help; but still, owing to the impossibility of calculating beforehand to what place the boat will take one at any date, considerable intervals must often elapse before news can be received. The absence of professional assistance in case of illness or accident, unless a medical man be one of the party, is another drawback often felt by invalids; though even this is gradually lessening, owing to the increasing numbers of the floating European population on the Nile during the season.

To persons of impatient disposition, to those not fond of reading or of quiet contemplation of the beauties of Nature, the Nile voyage in a dahabeah certainly may prove tedious. For such, and for others whose time and means are absolutely limited, there are the steamers, now all under the direction of Messrs. Cook and Sons. Each vessel carries from fourteen to twenty passengers; and they run at uncertain intervals, according to the season and the number of travellers, which can all be ascertained at the office close to Shepheard's Hotel. The time occupied in going to Assouan and back (for they do not ascend the cataract) is three weeks, and the charge £46 per head. All the principal objects of interest are visited, a certain number of hours being allowed for each temple or tomb. This is altogether a convenient method for those who wish to "do" the country expeditiously and economically, but not to be recommended either for travellers in search of health, or for those whose object is not to return able only to say that they have seen the country, but to feel that they have entered into its spirit, and impressed it so fully into their minds as to have made it part of themselves for the rest of their lives. The very delays of the sailing voyage have their advantages to the latter class of travellers, giving time for reading and reflection upon what has been been seen, and enabling one to see the country under a variety of different aspects, and to learn much as to the habits and social condition of the inhabitants, for which there are no opportunities in the hurried steamer voyage.

The life on board a dahabeah is generally a healthy one. It is essentially an out-of-door country life. The air, though perhaps not equal to that of the higher parts of the desert, is pure and bracing; for, owing to the narrowness of the strip of fertile land on the sides of the river (sometimes indeed quite absent, the rocks coming down to the water's edge), the air is practically that of the desert. On the first subsidence of the water after the autumnal overflow, the banks are muddy and damp, so it is well not to take to the water until December, by which time they are well dried by the sun, though January, February, and March are the best months. In April the water has often fallen so low, that navigation becomes difficult, owing to the numerous shoals and sandbanks. Even in autumn, malarious fever appears to be very uncommon on the Nile banks, except in the delta. The higher the river is ascended, so the salubrity increases, especially above the cataract, where the cultivated land is often reduced to a strip of a few feet in width along the water's edge, the river literally flowing through the desert.

The nights are generally clear, bright, and cool; sometimes, in the lower country, heavy mists are found to hang over the river in the early morning, which, however, are dissipated the moment the sun sends forth his genial rays. To guard against the cold of the night, a good supply of shawls and rugs must not be omitted, as no artificial heat can be obtained on board the boat, and persons subject to pulmonary affections should always keep within the cabin after sundown. Warm clothing is essential on a Nile voyage, for even in the daytime the wind is often keen.

The dahabeahs are flat-bottomed boats with huge latteen sails, generally capable of accommodating from two to eight passengers, according to their size. Through the kindness of some excellent friends, our voyage last year was made in one of the largest and best fitted on the river, belonging to Mr. Broadway of Cairo. It was 105 feet in length, and 20 in breadth, and the mainsail was 150 feet in height. We were a party of eight—two ladies and six gentlemen—with two English servants. There were also on board the dragoman and his two Maltese servants, the cook (a Persian) and his assistant, and a crew, consisting of Arabs and Nubians, seventeen in number, including the reis or captain, and steersman—altogether thirty-two souls. The sailors were an active, pleasant, merry set of men. Though we were in close contact with them for more than three months, we had nothing to complain of in the conduct of any one of them. They were always respectful and obliging, and when we made excursions on shore, one or more would accompany us, ready to carry guns, shawls, etc., and always on the watch to assist the ladies over rough places, to hold umbrellas for sketchers, or to render any little service with a quick yet unobtrusive readiness, and with a gentleness and propriety of manner not often met with in men of their class of life in Europe. Though as strong and healthy a set of men as could well be seen, their mode of living was most frugal. They slept in the open air on deck, and their food consisted chiefly of dry brown bread, crumbled into a large pan and boiled into a sort of porridge, with a few lentils added, and sometimes an onion or two. This was served out to them twice a day. On three occasions during the voyage, the head of our party presented them (as is the custom) with a sheep, but this was the only animal food they partook of during the whole time. Their drink was Nile water and an occasional small cup of strong coffee. Happily the reis and the majority of the crew were strict followers of the Prophet in the admirable regulation of abstaining from intoxicating liquors, and discipline or general opinion prevented those who were more lax in their religious observances from ever exceeding the bounds of propriety. It will be a bad time for the Arabs when this important article of the Mussulman faith ceases to be observed, but ominous-looking spirit-shops kept by Greeks are now to be seen in all the towns along the river where dahabeahs are in the habit of stopping.

Our own living on board was entirely under the control, and dependant upon the care, of the dragoman, and his cook who, considering the exceedingly limited space in which his operations were conducted, and the materials at his disposal, turned out a wonderful variety of dishes. Fresh buffalo-milk was obtained almost every morning at the nearest village; eggs, fowls, turkeys, and sheep were always to be had, and often vegetables, such as spinach, lettuce, and onions; but, for everything else, we had to depend upon the stores laid in before starting, consisting of hams, tongues, preserved meat, vegetables, fruit, flour, and the other usual requirements of the kitchen. Good bread was made daily on board. I mention these things to show that no one need fear starvation on a Nile boat. Indeed, I could not help often contrasting the almost too abundantly supplied and varied table of the saloon, with the simple fare which appeared to fulfil all the requirements of health and strength to the crew. It may happen, however, with a dragoman not liberal or conscientious, with stores insufficient in quantity or quality, and an indifferent cook, that delicate or particular persons may come off badly on a Nile voyage; but this is now rather the exception than the rule.

The river affords an unfailing supply of excellent water for bathing, washing, and drinking. For the latter purpose, all the mud with which it is abundantly charged is completely separated by filtering through one of the native large porous earthen jars or *ballas*. Anything that may be required in the way of wine, or beer, or mineral waters, must be laid in before leaving Cairo, according to the requirements of the party, for they do not form part of the dragoman's contract. Those who are particular often send their stock of wine direct from England, and this is on the whole, perhaps, the most economical way when a large supply is needed, as everything of the kind is dear in Egypt.

Nile voyages almost always terminate either at Assouan, at the foot of the first cataract, the limit between Egypt and Nubia, or at Wady Halfeh, at the second cataract. The shorter voyage occupies about eight to ten weeks, the longer one three or four weeks more. As dahabeahs cannot ascend the second cataract, it is not possible to continue the journey in the same boat beyond Wady Halfeh.

Contracts are made with the dragoman and owner of the boat for the journey. I must refer to Murray's Handbook for details as to the various methods in which these are drawn up, as much of the comfort and pleasure of the voyage will depend upon having everything properly regulated beforehand. As in the case of almost every thing else, the expense of Nile travelling appears to be increasing at a rapid rate. This is partly owing to the superior accommodation now afforded, and the larger amount of comfort and luxuries that travellers appear to need. But there is no doubt that all the necessaries of living have vastly increased in price during the last few years in Egypt. The time when fowls could be purchased for twopence apiece, and sheep for as many shillings, has long since passed away.

The present cost of the voyage will, of course, vary according to the style in which it is performed. The owners of very superior well-built, clean boats, used for no other purpose than to carry travellers, will naturally be able to ask more than need be paid for the rough old-fashioned kind, which had to be sunk in the river before starting to clear off the previous occupants, and in which English ladies would scarcely care to travel. Dragomans also vary much in their charges, and the number of the party joining to take a boat always has a very important influence upon the expense. The larger the number, the less will be the cost to each. Some persons prefer to travel alone, rather than run the risk of uncongenial companions. An English lady, last year, went up by herself in a dahbeah as far as the second cataract. Sometimes parties are made up at the hotels in Cairo. Supposing that four join in taking a boat, the entire expenses may be set down at somewhere about £2 per day for each. If the number be larger, they may be reduced to about £1 10s.; but, as I said before, these figures are subject to a considerable variation in either direction, according to circumstances, among which the bargaining powers of the manager of the party must be taken into account.

It will thus be seen that Egypt offers almost every advantage for a winter residence for invalids, excepting economy. The increased expense of late years has, doubtless, been partly occasioned by the great influx of travellers, English and American, to whom it is no object to limit expenditure, and who consequently raise the prices to all others, but also very much by the greatly increased taxation to which the native population is now subjected. The addition of over a hundred millions to the public debt, at a very high rate of interest, during the last ten years, is a heavy burden upon the resources of so small a country.

It would be very difficult to predict the future of Egypt. With such a heterogeneous population, especially among the classes who have any influence in the government of the country, it can hardly be looked upon as a nation in the ordinary sense of the word. The sovereignty of Turkey is in some respects still more than nominal and very costly, as, besides the regular tribute, vast sums are said to be expended in bribes to the ministers at Constantinople to enable the Khedive to carry out his independent views.

With a population in which nearly all the intelligence and education is of foreign origin, self-government or any kind of representative institution is impossible. Moreover, the religion of the masses of the people, Mahommedanism, has no room for improvement. Its precepts are inflexible. As all knowledge needful for man is contained in the Koran, all other books are superfluous. Unfortunately, the greatest obstacle to progress, polygamy and the consequent degraded state of the women, is associated with the whole system of social and religious life. What can be expected of children who are brought up in a harem by women and slaves, scarcely raised by any kind of cultivation above the level of animals? This naturally tells far more upon the higher than upon the lower classes. Among the latter, a man can rarely afford more than one wife, and she has to take her part in home and out-door work, and so lives more on an equality with the other sex. But the more a man rises in education, intelligence, and wealth, the greater the intellectual difference between himself and his female companions. Hence, as compared with other countries, the upper classes are relatively worse in many respects than the lower. Unless all this can be changed, Egypt can never take rank as a civilised country. The present ruler appears to see this, and the education of women is one among his numerous schemes for reform. He has set the example among his own daughters, and is building "ladies' colleges" both at Cairo and at Constantinople. But, to alter the entire social system which has existed for ages, will be a task that can hardly be accomplished in a generation. There is much that is excellent in the moral code of Mahommedanism; among others, it has this great merit, that, on many points, it causes its devotees to sacrifice *self*, and to submit to inconveniences and privations for conscience's sake. It is perfectly certain, however, that, as long as a people remain fanatical adherents to its creed, they can never become civilised in our sense of the word. But, unfortunately, when inroads are made upon the faith of a Mahommedan, unless a pure form of Christianity can be substituted, good and bad go together, and the last state of the man is often worse than the first. The very grave question as to the future destiny of Mahommedan populations may be quietly relegated to the future in many more out-of-the-way parts of the world, but it is seething to the surface in Egypt just now. In this age of motion, its geographical position at the meeting point of three great continents, as well as its other attractions to travellers and speculators, have suddenly brought it into importance and close contact with the most advanced portions of the world. Its present ruler, moreover, is a type of the general condition of the country; like his grandfather, Mahommed Ali, he has much ambition, energy, administrative capacity, and a general desire for the progress and material prosperity of his country, engrafted upon a substratum of Oriental ignorance, credulity, caprice, and self-indulgent extravagance. What his successor may be cannot yet be predicted; and a country is in a fearfully precarious condition when everything depends upon the personal character of the man who happens to be at the head of affairs for the time being.

LANCING THE GUMS.

I READ with pleasure Dr. Finlayson's paper "On the Alleged Dangers of Dentition and the Practice of Lancing the Gums", in the JOURNAL of August 19th. As I agree with the paper in the main, I will not occupy space in taking exception to any parts of it, but wish merely to say a few words on the use of the gum-lancet. Whether convulsions occurring during the period of dentition are due to disease of the brain or to the difficulty the teeth have in making their way through the gums, will in most instances be a difficult problem to solve. But, should the free use of the gum-lancet in such cases be frequently followed by amelioration or cessation of the convulsions, by all means let it be resorted to, even though empirically. During an experience of over twelve years, I have invariably found this to be the case, and in one instance, that of a fine healthy child, nine or ten months old, who screamed violently for several hours without any discernible cause, I believe that I was the means of warding off an attack of convulsions by free incision of the gums, both upper and under; for, immediately after the operation, she fell asleep, slept soundly all night, and had no recurrence of the screaming. In cases other than convulsions or threatened convulsions, I do not as a rule use the gum-lancet, but content myself with scratching the gum when it is tense with a finger-nail. I do not at present recall any case in which I regret having used the gum-lancet, nor one in which I should have used it, but did not. I have not experienced any trouble from hæmorrhage after its use.

J. J. HARDESTY, L.R.C.P. and S.E., Galashiels.

REPORT
OF THE
COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

The series of researches which I am about to describe owes its origin to the Address on Medicine I had the honour to read to the Association in Chester, at the annual meeting of 1866. I then urged the propriety of endeavouring to solve some of the scientific or practical difficulties with which our profession had to contend. This appeal was responded to, a grant of money was made, and a subscription raised to defray the expenses of a Committee that was to determine the question whether mercury had or had not any power to stimulate the liver to an increased secretion of bile. The report on this subject I had the pleasure of reading to the annual meeting at Oxford in 1868, and I may venture to say that the two years' labour of the Committee finally settled this long disputed subject, and demonstrated beyond the possibility of reasonable objection that in this respect mercury had none of the properties that had so long been attributed to it.* At the following annual meeting, in Leeds, another grant of money was made by the Association to investigate the antagonism of medicines, and again I was entrusted to form a Committee, and, as its Convener, to report the results. The Committee that was formed for this purpose consisted of Dr. McKendrick, my assistant, Dr. James Rogers, formerly of St. Petersburg, Dr. Macadam, lecturer on chemistry, Mr. T. Smith, head of the eminent firm of Messrs. T. and H. Smith, chemists and druggists, Edinburgh (the preparation of whose alkaloids is so thoroughly appreciated, and who at once promised to furnish us with the purest drugs that could be obtained, gratuitously), and Dr. Edmund Cook, chief chemist in the employment of the Messrs. Smith. This Committee appeared to me to embrace all the essential qualities and to possess all the necessary means and appliances for prosecuting the inquiry. On the resignation of Dr. Cook, who was obliged to leave Edinburgh, Dr. Alexander Bennett was added to the Committee.

At the preliminary meetings of the Committee, it was determined to introduce the substance under examination in solution below the skin of animals, and ascertain, by careful observation—

1. The physiological actions produced.
2. The minimum fatal dose.
3. The influence of one supposed antagonistic substance, on the physiological action of the other when both were simultaneously injected.
4. The influence of the supposed antagonistic substance when introduced some time *before* the fatal one.
5. The influence of the supposed antagonistic substance when introduced some time *after* the fatal one.
6. The limits of the antagonism when such existed.
7. The performance in all cases of a crucial test consisting, when any supposed antagonistic action had saved the animal, in injecting the same dose of the active substance into the same animal a week or ten days afterwards. If death then took place, it was held that the two substances were antagonistic.

By such a method, we hoped to ascertain, beyond the possibility of doubt, whether one drug could really antagonise the fatal or injurious properties of another, choosing in the first instance, for experiment, such as exhibited the most powerful and unequivocal action. In this manner there have been investigated, during the four years over which the Committee's labours have extended, the antagonistic properties existing between—

1. Hydrate of chloral and strychnia.
2. Sulphate of atropia and Calabar bean.
3. Hydrate of chloral and Calabar bean.
4. Hydrochlorate and meconate of morphia and Calabar bean.
5. Sulphate of atropia and meconate of morphia.
6. Meconate of morphia and theine.
7. Meconate of morphia and caffeine.
8. Meconate of morphia and guaranine.
9. Meconate of morphia and infusion of tea.
10. Meconate of morphia and infusion of coffee.
11. Extract of Calabar bean and strychnia.
12. Hydrate of bromal and atropia.

Doubtless these researches would have been much more extended, had not my illness, at the commencement of 1872, and consequent absence from Edinburgh, prevented my taking any very active part in them after the first four subjects named. This also threw such an amount of teaching, systematic and practical, upon my assistant, Dr. McKendrick, as equally to prevent his paying more than occasional attention to the work of the Committee. The absence of Dr. Rogers and Dr. Cook also caused it to stand still for several months. Nevertheless, a large number of experiments have been made and carefully described; indeed, they amount to 619 in number, the labour of performing, recording, tabulating, and reporting upon which can only be appreciated by those whose time has been occupied in similar investigations.

The experiments have been numbered in the order of their performance, and the results tabulated in columns, so that all the facts are condensed in the smallest possible space, and are easily studied. I shall be satisfied if it appear that the Committee has performed the task entrusted to it, and usefully expended the funds placed at its disposal by the Association.

I.—Antagonism between Strychnia and Chloral Hydrate.

The minimum fatal dose of each of these substances was first ascertained.

A. *On Rabbits.*

Table I.—*Showing the Effects of a Minimum Fatal Dose of Hydrate of Chloral on Rabbits.*

No.	Weight of Rabbit.	Dose in Grains.	Result.	No.	Weight of Rabbit.	Dose in Grains.	Result.
1	4 lbs. 3 oz.	18	Recovery	11	3 lbs.	22	Death
2	4 lbs. 6 oz.	19	,,	12	3 lbs.	21	Recovery
3	4 lbs. 10 oz.	22	,,	13	3 lbs.	19	,,
4	3 lbs. 8 oz.	21	,,	14	4 lbs.	24	,,
5	3 lbs. 9 oz.	20	Death	15	4 lbs. 2 oz.	25	Death
6	4 lbs. 2 oz.	24	Recovery	16	4 lbs. 3 oz.	24	Recovery
7	4 lbs.	26	Death	17	4 lbs.	24	,,
8	3 lbs.	23	,,	18	3 lbs.	22	Death
9	4 lbs. 1 oz.	20	Recovery	19	3 lbs.	23	,,
10	3 lbs. 10 oz.	18	,,	20	3 lbs.	21	Recovery

This table shows that twenty-one grains of hydrate of chloral may be regarded approximately as the minimum fatal dose for a rabbit of three pounds weight. At the same time, it has been observed, both in this research and in others in which chloral hydrate was employed as a hypnotic, that not unfrequently a dose, which in the great majority of instances is not ordinarily fatal, may destroy life. This is a fact of considerable practical importance, and might be explained by the supposition that, in certain conditions of the blood or tissues, chloroform may be produced more rapidly than usual by the action, according to the theory of Liebreich, of alkaline salts in the blood on chloral hydrate. The effects produced by chloral hydrate are now so well known as not to require special description. The period of hyperæsthesia is well marked in the rabbit. Frequently a slight pinch will cause the animal to utter prolonged screams, which would not be so occasioned in the normal condition.

Table II.—*Showing the Effects of a Minimum Fatal Dose of Strychnia on Rabbits.*

No.	Weight of Rabbit.	Dose in Parts of a Grain.	Result.	No.	Weight of Rabbit.	Dose in Parts of a Grain.	Result.
21	3 lbs. 1 oz.	1-100th	Death in 20 minutes	28	2 lbs. 8 oz.	1-98th	Death in 16 minutes
22	4 lbs.	1-50th	Death in 14 minutes	29	3 lbs.	1-96th	Death in 20 minutes
23	3 lbs. 6 oz.	1-80th	Death in 12 minutes	30	3 lbs.	1-95th	Recovery
				31	3 lbs. 4 oz.	1-98th	,,
24	4 lbs. 2 oz.	1-90th	Recovery	32	3 lbs. 5 oz.	1-98th	,,
25	3 lbs.	1-90th	Death in 28 minutes	33	3 lbs.	1-98th	Death in 45 minutes
26	3 lbs. 1 oz.	1-95th	Recovery	34	3 lbs.	1-96th	Death in 1 hour
27	2 lbs. 10 oz.	1-95th	Death in 18 minutes				

The result of these fourteen experiments indicate that the minimum fatal dose for rabbits of strychnia is 1-96th of a grain for every 3 lbs. weight of animal, or 1-288th of grain for every pound. Here also it must be understood that the fatal dose is to a certain extent approximative; for in several instances animals died from a smaller dose, apparently from asphyxia produced by strong tetanic convulsions of the muscles of respiration.

Having thus determined the minimum fatal dose of the two substances, the action of both together was investigated.

Influence of Hydrate of Chloral on a Fatal Dose of Strychnia, when

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* *Researches into the Action of Mercury, Podophylon, and Taraxacum, on the Biliary Secretion*, etc. Second edition, with appendix, 8vo. Edinburgh: 1874.

both Substances are given simultaneously.—The phenomena produced are described in the following detailed experiment.

Experiment 35.—Female rabbit, weighing 3¼ lbs. The average number of cardiac impulses was 85 in 20 seconds, and the respirations 26 in 20 seconds. One-ninetieth of a grain of strychnia dissolved in 20 minims of distilled water was injected under the skin of the left shoulder. Immediately afterwards, 15 grains of hydrate of chloral in 30 minims of distilled water were injected under the skin of the loins. The animal remained quiet for twenty minutes, apparently becoming drowsy. At the end of that time, slight twitchings of the muscles were observed. Five minutes later, the animal was prone and had a very feeble convulsion, with a tendency to slight opisthotonos, which state lasted ten seconds. The animal then lay upon its side, apparently in deep hypnotism. During the next two hours, it remained in this condition, the only phenomena observed being—first, twitching of the internal rectus muscles of the eyeballs, and, second, a convulsive start on touching one of the extremities, or on tapping smartly on the table. At the end of three hours from the time of receiving the active substances, the animal began to move about, and it apparently soon became quite well.

Experiment 36.—On the tenth day after the former experiment, one-ninetieth of a grain of strychnia was again injected into the same animal, under the skin over the left loin. The animal remained quiet for five minutes, when it became restless, and moved about with a staggering gait. In two minutes more, it leaped from the table, fell on its side, and had severe convulsions, with an extreme degree of opisthotonos. These convulsive attacks occurred three times, when death ensued, twenty-six minutes after the administration of the poison.

The dose was thus proved to be fatal; but, as it was comparatively a small one, a series of experiments was made with the view of testing the influence of hydrate of chloral on still larger doses of strychnia, when the two substances were given almost simultaneously. These experiments are registered in the following table.

Table III.—*Showing the Results of Varying Doses of Hydrate of Chloral when injected with Fatal Doses of Strychnia.*

No.	Weight of Rabbit.	Dose of Chlor.Hyd. in grains.	Dose of Strychnia in parts of a grain.	Result.	Result of crucial experiment of giving same dose of Strychnia to same animal seven days afterwards.
37	3 lbs. 1 oz.	18	1-80th	Recovery	Recovery
38	3 lbs. 3 oz.	19	1-86th	,,	Recovery after severe spasms
39	3 lbs.	16	1-60th	,,	Death in 20 min.
40	3 lbs.	16	1-50th	,,	Death in 10 min.
41	3 lbs. 2 oz.	16	1-25th	Death	
42	2 lbs. 13 oz.	14	1-70th	Recovery	Death in 18 min.
43	2 lbs. 15 oz.	15	1-60th	,,	Death in 14 min.
44	2 lbs. 10 oz.	15	1-60th	,,	Death in 18 min.
45	3 lbs.	17	1-40th	,,	Death in 10 min.
46	3 lbs.	16	1-40th	,,	Death in 12 min.
47	3 lbs.	12	1-29th	Death in 30 min.	
48	3 lbs. 2 oz.	10	1-60th	Death in 3 hours	
49	3 lbs. 3 oz.	8	1-80th	Recovery aft. severe spasms	Death in 20 min.
50	3 lbs.	14	1-30th	Recovery aft. severe spasms	Death in 14 min.
51	3 lbs.	12	1-24th	Death in 40 min.	
52	2 lbs. 11 oz.	12	1-32nd	Death in 36 min.	
53	2 lbs. 12 oz.	18	1-40th	Recovery aft. severe spasms	Death in 12 min.
54	2 lbs. 13 oz.	17	1-42nd	Recovery	Death in 16 min.
55	3 lbs.	16	1-50th	,,	Death in 12 min.
56	3 lbs.	18	1-54th	Recovery aft. severe spasms	Death in 18 min.

It will be seen from this table that in twenty cases a fatal dose of strychnia was administered simultaneously with varying doses of chloral hydrate. In five instances, death ensued, notwithstanding the action of the latter drug. But in these, with the exception of No. 48, the dose of strychnia was very large, being about four times that of the minimum fatal dose. Even in these cases, however, chloral hydrate prolonged life, and, in No. 48, in which 1-60th of a grain of strychnia was given, with a dose of only ten grains of chloral hydrate, life was much prolonged. This will be more readily seen by comparing No. 48 with the result of the crucial experiments in Nos. 39 and 44, in which the animals died after the injection of 1-60th of a grain of strychnia in twenty and eighteen minutes respectively. These experiments, therefore, show, in a very conclusive manner, that chloral hydrate antagonises fatal doses of strychnia, and modifies the symptoms to a very remarkable extent.

It was found by experience that recovery from a fatal dose of strychnia, even after the administration of an antagonistic dose of chloral hydrate, was rendered more certain if means were taken to prevent, as far as possible, the body of the animal from being irritated. It was frequently observed, after the administration of both substances, that, although the rabbit lay tranquilly on its side, and apparently deeply under the influence of the chloral hydrate, still peripheral irritation caused muscular twitchings and even severe spasm. These phenomena indicated that the reflex excitability of the spinal cord was still increased by the action of the strychnia. The best results, therefore, were obtained, so far as the recovery of the animals was concerned, by placing the rabbit under a large bell-jar, so arranged as to insure perfect ventilation.

Influence of Hydrate of Chloral when injected some time after a Fatal Dose of Strychnia.—A minimum fatal dose of strychnia produces its first visible physiological effects from fifteen to twenty minutes after its introduction into the system. It became a matter of great practical importance to determine how far chloral hydrate could influence the physiological effects of strychnia after these had made their appearance. Twelve experiments were made, with the view of determining this point. The rabbits were as nearly as possible of equal weight and in equally good condition; the same amount of strychnia was introduced into each. The counteracting dose of chloral hydrate was introduced in the first case almost simultaneously, and in the other cases at successive intervals of two minutes. The following table shows at a glance the result.

Table IV.—*Showing the Influence of Hydrate of Chloral given at different intervals of time after a fatal dose of Strychnia.*

No.	Weight of Rabbit.	Dose of Strychnia in parts of a grain.	Dose of Chloral Hydrate in grs.	Interval between the administration of Chloral Hydrate.	Time of the first appearance of effects of Strychnia.	Results.	Remarks.
57	2 lbs. 15 oz.	1-96th	16	Simultaneously	Slight spasms 20 min. after	Recovery	
58	3 lbs.	,,	,,	2 minutes after	No spasms	,,	
59	3 lbs.	,,	,,	4 minutes after	Slight spasms 18 min. after	,,	Slight twitchings of muscles for 3 hrs.
60	3 lbs. 1 oz.	,,	,,	6 minutes after	Slight tetanic spasm 22 m. after	,,	Ditto for nearly 2 hours
61	3 lbs.	,,	,,	8 minutes after	Tetanic convulsion 20 m. after	,,	This animal had numerous tetanic spasms
62	2 lbs. 14½ oz.	,,	,,	10 minutes after	Tetanic convulsion 21 m. after	Death	Died 35 min. aft. strychnia
63	3 lbs.	,,	,,	12 minutes after	Severe tetanic convulsions 20 min. after	,,	Died 32 min. aft. strychnia
64	3 lbs.	,,	,,	14 minutes after	Ditto	,,	Died 29 min. aft. strychnia
65	3 lbs. ½ oz.	,,	,,	16 minutes after	Very severe convulsions	,,	Died 24 min. aft. strychnia
66	3 lbs. 1½ oz.	,,	,,	18 minutes after	Ditto	,,	Died 22 min. aft. strychnia
67	3 lbs.	,,	,,	20 minutes after	Ditto	,,	Died 20 min. aft. strychnia
68	3 lbs.	,,	,,	22 minutes after	Ditto	,,	Died 20 min. aft. strychnia

From these experiments, it will be seen that chloral hydrate becomes less efficient in counteracting the fatal effects of strychnia in proportion as it is administered at more distant intervals of time from that of the administration of the strychnia. If the physiological effects of strychnia showed themselves in a marked way before the animal came under the influence of the chloral hydrate, death was liable to ensue from asphyxia due to tetanic spasm of the muscles of respiration. The sooner the chloral hydrate was given after the administration of strychnia, the more certain was the animal to survive. From this, the practical conclusion follows that, in cases of accidental poisoning by strychnia, the patient should be brought as rapidly as possible under the influence of chloral hydrate, either by subcutaneous injection or even by the direct introduction of the substance into a vein.

Influence of Strychnia when simultaneously injected with a Fatal Dose of Hydrate of Chloral. — It was pointed out by Oscar Liebreich*, who first investigated and brought under the notice of the profession the hypnotic effects of hydrate of chloral, that the injection of minute doses of strychnia had the effect of rousing rabbits from under the influence of deep coma produced by chloral hydrate, and even of saving life after a lethal dose of the latter. As chloral hydrate is now much used in practical medicine, and as not a few cases are now on record of deaths from too large doses, it became of importance to reinvestigate this point. In fifteen experiments, therefore, in which fatal doses of chloral hydrate were first given, and after the animals had come deeply under the influence of the drug, minute non-fatal doses of strychnia were injected. The results are seen in the following table.

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* Oscar Liebreich, *Comptes Rendus des Séances de l'Académie des Sciences*, 1870, vol. lxx, p. 403.

TABLE V.—*Showing the Influence of Injecting Strychnia when Fatal Doses of Chloral Hydrate had been previously Administered.*

No.	Weight of Rabbit.	Dose of Chloral Hydrate in grains.	Dose of Strychnia in parts of a grain.	Time between Injection of Dose of Chloral and Dose of Strychnia.	Results.	Remarks.
69	3 lbs. 2 oz.	21½	1-100	15 minutes	Recovery	Killed 4 days afterwards with same dose of chloral hydrate
70	3 lbs. 1 oz.	22	1-93	15 minutes	,,	Recovered 4 days afterwards with same dose of chloral hydrate
71	2 lbs. 15 oz.	22	1-94	14 minutes	,,	Killed 5 days afterwards, ditto
72	3 lbs.	23	1-110	13 minutes	Death	Died in profound coma, with but slight muscular twitchings
73	3 lbs.	24	1-150	10 minutes	,,	Ditto, ditto
74	3 lbs. ½ oz.	21	1-100	12 minutes	Recovery	Recovered 4 days afterwards with same dose of chloral hydrate
75	3 lbs. 1½ oz.	22	1-80	Simultaneously	,,	Killed 6 days do., do.
76	3 lbs. 1¾ oz.	22	1-60	,,	Death	Died in profound coma, with but slight muscular twitchings
77	3 lbs.	25	1-50	,,	,,	Coma, one smart tetanic spasm
78	3 lbs.	24	1-40	15 minutes	,,	Coma, three spasms, opisthotonos
79	3 lbs. 2 oz.	23	1-90	12 minutes	Recovery	Killed 3 days afterwards with same dose of chloral hydrate
80	3 lbs. ¼ oz.	22	1-98	10 minutes	,,	Recovered after same dose 5 days afterwards
81	2 lbs. 14 oz.	23	1-96	20 minutes	Death	Profound coma, slight twitchings
82	2 lbs. 15 oz.	21½	1-92	20 minutes	,,	Ditto, ditto
83	3 lbs.	22	1-100	18 minutes	Recovery	Recovered from same dose, given 4 days afterwards

It will be apparent from a consideration of this table that the evidence in favour of the view that strychnia antagonises fatal doses of chloral hydrate is not so satisfactory as might be expected. In the fifteen experiments, eight recovered from what were supposed to be fatal doses of chloral hydrate (Nos. 69, 70, 71, 74, 75, 79, 80, and 83); but, when the same dose of chloral hydrate was given to the same animals a few days later, four died (Nos. 69, 71, 75, and 79) and four recovered (Nos. 70, 74, 80, and 83). It was also observed that, in those cases in which the animals died notwithstanding the injection of strychnia, they died in profound coma, although, from the muscular twitchings and from the ease with which reflex spasms could be excited, it was evident that the strychnia was physiologically influencing the spinal cord. It would appear, therefore, that there is little hope of saving life after fatal doses of chloral hydrate by the subsequent injection of strychnia. Chloral hydrate acts, not only on the centres of the spinal cord, but also on the brain, as is evidenced by the profound coma following a large dose, and the injected condition of the membranes of the brain found after death. Strychnia, on the other hand, exercises no known influence on the brain; and, although it may stimulate the reflex centres of the cord, depressed in vital activity by the action of chloral hydrate, it cannot relieve the condition of the encephalon, and consequently, even though there may be muscular twitchings and even tetanic convulsions, the animal dies comatose.

B. *On Rats.*

In this inquiry, numerous experiments were made on rats. The animals employed were common brown rats (*Mus decumanus Lin.*) caught in stables. They were from twelve to sixteen ounces in weight. The inquiry was conducted in the same manner as in the case of rabbits, and the general results were found to be the same.

I. *Minimum Fatal Dose of Hydrate of Chloral on Rats.*—This was found to be, after twelve experiments (detailed in Table VI), 1⅞ grains for an animal weighing nearly twelve ounces. In two cases, Nos. 90 and 91, the animals recovered from a dose of two grains; but they appeared to be more powerful and better fed specimens.

TABLE VI.—*Showing the Effects of a Minimum Fatal Dose of Hydrate of Chloral on Rats.*

No.	Weight of Rat in ounces.	Dose of Hydrate of Chloral in grains.	Result.
84	10	¼	Recovered
85	11	½	,,
86	12	1	,,
87	11	1½	,,
88	13	1¾	,,
89	11	1¼	,,
90	11½	2	,,
91	10¾	2	,,
92	11	1⅞	Died
93	11¼	1⅞	,,
94	11½	1 8-9ths	Recovered
95	11½	2	Died

II. *Minimum Fatal Dose of Strychnia on Rats.*—After twelve experiments (detailed in Table VII), this was ascertained to be 1-60th of a grain. It is remarkable that rats required a larger dose of strychnia to destroy life than rabbits, the fatal dose for the latter being about (see Table II) 1-96th of a grain. This is still more striking, if we compare the fatal dose according to pound weight: rat, 1-60th of a grain; rabbit, 1-288th—more than four times less in the rabbit than in the rat. On the other hand, it was noted that, when the physiological effects of strychnia did manifest themselves in the rat, they were much more violent than in the case of the rabbit, and the animal usually died in the very first tetanic spasm. In many other experiments, it was observed that it was more difficult to kill rats than rabbits.

TABLE VII.—*Showing the Effects of a Minimum Fatal Dose of Strychnia on Rats.*

No.	Weight of Rat in ounces.	Dose of Strychnia in grains.	Result.
96	11	1-150th	Recovered
97	11¼	1-140th	,,
98	11½	1-130th	,,
99	12	1-120th	Recovered; slight convulsion
100	11¾	1-100th	,, ,,
101	11¼	1-90th	Recovered; more severe convulsion
102	10	1-80th	Recovered; severe convulsion
103	9¾	1-70th	Severe convulsions, frequently repeated; recovery
104	12¼	1-60th	Convulsions; death
105	12	1-70th	Severe convulsions; recovery
106	12	1-60th	Convulsions; death
107	11	1-60th	,, ,,

III. *Influence of Hydrate of Chloral injected simultaneously with a Fatal Dose of Strychnia.*—This was determined in the following six experiments, which were deemed sufficient to determine the point, so far as rats were concerned.

TABLE VIII.—*Showing the Antagonism between Hydrate of Chloral and Strychnia in Rats.*

No.	Weight of Rat.	Dose of Chloral Hydrate in grains.	Dose of Strychnia in parts of a grain.	Result.	Result of crucial experiment of giving same dose to same animal 5 days afterwards.
108	10 oz.	1⅞	1-34th	Died in 16 minutes in severe convulsions	Chloral hydrate apparently had not time to act
109	11 oz.	3	1-44th	Recovered after considerable twitchings in 3 hours	Killed in 20 minutes with same dose
110	11 oz.	3	1-44th	Ditto, ditto	This animal had repeated tetanic spasms; killed with same dose in 18 minutes
111	10½ oz.	2½	1-44th	Died 10 hours after	Slight convulsions; died apparently from effects of chloral
112	11 oz.	2½	1-60th	Died 15 hours after	Ditto, ditto
113	11¾ oz.	2½	1-60th	Died 14 hours after	Ditto, ditto
114	11¼ oz.	3	1-50th	Died 8 hours after	Became suddenly asphyxiated; much mucus in air-passages

This table shows (1) two instances (Nos. 109 and 110) in which the animals recovered from fatal doses of strychnia; (2) that larger than fatal doses of chloral hydrate were required to antagonise fatal doses of strychnia, and that in three instances (Nos. 111, 112, and 113) the animals died apparently from the effects of the former. The convulsions, except in No. 108, were much reduced, both in force and frequency, by the action of the chloral hydrate.

General Conclusions regarding the Antagonism between Chloral Hydrate and Strychnia.

It appears to be established from these experiments :

1. That, after a fatal dose of strychnia, life may be saved by bringing the animal under the influence of chloral hydrate.

2. That chloral hydrate is more likely to save life after a fatal dose of strychnia than strychnia is to save life after a fatal dose of chloral hydrate.

3. That, after a dose of strychnia producing severe tetanic convulsions, these convulsions may be much reduced, both in force and frequency, by the use of chloral hydrate, and consequently much suffering saved.

4. That the extent of physiological antagonism between the two substances is so far limited, that (1) a very large fatal dose of strychnia may kill before the chloral hydrate has had time to act ; or (2) so large must the dose of chloral hydrate be to antagonise an excessive dose of strychnia, that there is danger of death from the effects of the chloral hydrate.

5. Chloral hydrate mitigates the effects of a fatal dose of strychnia by depressing the excess of reflex activity excited by that substance, while strychnia may mitigate the effects of a fatal dose of chloral hydrate by rousing the activity of the spinal cord ; but it does not appear capable of removing the coma produced by the action of chloral hydrate on the brain.

It is scarcely necessary to point out the vast importance of these results to practical medicine and the indications they afford, not only in cases of poisoning by strychnia, but in cases of tetanus and other spasmodic diseases, reflex and central.

At a meeting of the Medico-Chirurgical Society of Edinburgh, on April 6th, 1870, and at the annual meeting of the Association at Newcastle in 1870, I demonstrated experimentally with what certainty rabbits might be saved after receiving a fatal dose of strychnia, by the injection of a solution of chloral hydrate. Take two rabbits of about 3 lbs. weight ; inject under the skin of both 1-96th of a grain of strychnia, and then in one a solution of fifteen grains of chloral : in ten minutes the first one will leap into the air and fall down tetanic and dead ; the other will go to sleep, and in about two hours will wake up as if nothing were the matter. A more certain antidote does not exist.

[*To be continued.*]

Intravenous Injections.—The late discussions as to the harmlessness or danger of intravenous injections of chloral appear to have been anticipated by a physician named Godefroy, who practised in Orleans in the seventeenth century, and who has left a number of very interesting manuscripts. Dr. Champignon, of the same city, laid before its Société des Sciences some extracts from these documents, in which M. Godefroy discusses transfusion of blood, which he stigmatises as murderous, whilst he strongly approves of "medicated infusions into the basilar vein". He quotes three experiments tried by Fabricius at the hospital at Dantzic. Two of these experiments were made on two women suffering from epilepsy and some other doubtful disease. They were not cured, but there were no unpleasant consequences. The substance injected is called by Godefroy, who writes in Latin, *medicamentum purgans*, and in the *Journal des Savants* (1660-1667) *liqueur purgative*.

The third incident is interesting. A soldier was affected with syphilis of old standing, with numerous exostoses. Three drachms of the *liqueur purgative* were injected into the vein of the arm. Great pain in the elbow and swelling of the arm followed; the medicine acted at the end of four hours with five actions of the bowels ; the following days the same action went on. The exostoses diminished, and soon there were no traces of the lues venerea left. The *Journal des Savants* of January 23rd, 1668, relates these cases, but gives no details respecting this purgative liquor (*medicamentum purgans*). Might it not have been calomel, then the universal panacea recommended by Paracelsus? Would the direct injection of calomel or any other mercurial preparation into the blood be more efficacious than ingestion by the stomach, as the partisans of hypodermic injections in syphilis have asserted? However this may be, it is certain that surgeons in former times have made medicated injections into the veins without any untoward consequences, though with imperfect instruments ; and even seem to have obtained beneficial results from their use.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

Subscriptions to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. Francis Fowke, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 3RD, 1874.

THE MEDICAL ADDRESSES.

We are no great admirers of Introductory Addresses. It may very much be doubted whether the toil and anguish of mind which many of them evidently cost their authors, and the suffering which some inflict upon their audience, are at all adequately repaid by the exceptional pleasure and profit to be derived from the occasionally successful orations which October 1st evokes. A dozen of these orations were produced, and several more will be called for during the next few weeks in England, Ireland, and Scotland. It is a very hard fate which compels each member of the medical staff in succession to become that for which nature has not always fitted him ; for an orator is almost as rarely born as a poet. Fortunately, however, custom allows the speakers on October 1st a considerable range of subjects ; fortunately also the audiences are thoroughly sympathetic, and well understand that the delivery of the oration is more often an accepted duty than a voluntary display; and it must further be said that the range of medical study and the variety of culture which it encourages are such, that the medical orators accomplish their task with a higher average of success than could be fairly expected, and one which we think no other profession could well surpass. Most clergymen are, we believe, of opinion that, if fate had ordained their lot otherwise, they would have made very good doctors, and are disposed, under any circumstances, to a little poaching ; and, after reading through a series of October addresses, the idea always passes through our mind that medical orators would for the most part cut a very good figure in the pulpit.

Granting all the difficulties of the position, it must be admitted that the lecturers have, this year, acquitted themselves of their task with great ability. The address of Sir William Gull was looked forward to with much eagerness, not only by Guy's men but by the profession generally ; and—although the announcement made some weeks since that we should, by the courtesy of the orator, publish the address *in extenso*, and that we should supply proofs for abstract to our contemporaries, may have diminished the numbers who were willing to submit to the inconvenience of overcrowding, for the sake of hearing the spoken words of one who is a born orator as well as an eminent thinker and practitioner—the crowd that assembled could not be accommodated in the precincts of the hospital, and an adjournment was necessary to a more spacious hall. This spontaneous tribute paid to the school and its great physician, the hearers were gratified with an oration which, if it failed to excite their imagination or to dazzle their intelligence, must have left them impressed with some thoughts very pregnant with germs of progress. Sir William Gull, as a teacher, has long been viewed with feelings of admiration mixed with suspicion. Gifted with a fatal facility for epigram, which springs almost unbidden to his lips, and tutored by research as well perhaps as tempted by his native keenness of intellect into cultivated scepticism, he has been regarded askance by the great body of medical workers, who shrink from a negative usefulness in practice, and long to do their work as priests of a positive faith armed with formulæ that have the highest sanctions.

The study which he has made fashionable, of the natural history of disease, the shade thrown over the "active" school of therapeutists by his recent mint-water experiments, have been very unacceptable to many very earnest but not very thoughtful men. In this address, Sir William Gull has, in a form that will be very generally acceptable, and with a clearness and depth of thought that justify his reputation, defined the course and relations of the study of medicine. Medicine, studied in this direction and under these influences, with all the aids that collateral physical research can give, and under the reserves and with the limitations that exact science requires, is a study worthy of the noblest intellects, and promising fruit that may satisfy the highest ambitions, and will surely deserve the gratitude of mankind.

Other speakers deal with more modest themes. Some, as Mr. Wheelhouse, review the achievements of our art, and, in reciting and analysing them, fire their auditors with the desire to emulate the achievements they describe, and to become worthy members of the profession. Some confine themselves usefully, as Mr. Owen, to discussion of the apparatus and methods of teaching, and the best way of getting due information from lectures and examinations. Others tread the beaten path, and produce an ingenious and interesting *olla podrida* of facts, suggestions, and exhortations, apposite, if not novel. Dr. Ferrier enters upon a forcible and very useful defence of the physiological methods of investigation, which have lately been unfairly and ignorantly attacked. We invite attention to the extracts which we publish from his able address, and could wish that it had taken the form of a more complete and separate argument on the subject. It is well illustrated by the report of Dr. Hughes Bennett and his coadjutors, which we publish in another column. It is an example of the excellent matter which is often wasted by being vented on the 1st of October, instead of being reserved for larger and more suitable audiences. The anniversary of the opening of the medical schools has been marked this year by addresses which are distinctly above the average; but the question is still worth consideration, whether St. Bartholomew's Hospital has not wisely decided that, on the whole, the custom of delivering orations to order on a wholesale scale is one more honoured in the breach than in the observance.

THE ARMY MEDICAL SERVICE.

THE position of this branch of the public service at the present moment is one which deserves grave consideration from the younger as well as the elder members of the profession. Of late years the merits and claims of army surgeons have been systematically ignored by the authorities to such an extent that the Government medical services, which ought to be looked upon as among the most honourable and best remunerated branches of our profession, have become so much lowered, both in the status accorded and the amount of emolument awarded, that it becomes a matter of serious deliberation whether it is really worth while for a gentleman to undergo the arduous course of costly study necessary to qualify for medical service. It would be advisable, therefore, for gentlemen who intend to qualify for the army to look at the present position and prospects of an army surgeon.

First, as to emolument: the rate of pay determined at the last revision in 1858 is 10s. *per diem* at the commencement, increasing 2s. 6d. *per diem* after each five years' completed service; so that for the first fifteen years, the average income would be £228 : 2 : 6 *per annum*. Increasing by the official scale until thirty years' service had been accomplished, the average professional earnings would amount to £431 : 18 : 4; assuming, of course, that during that long period everything had progressed in a satisfactory manner.

The scale of pay to the medical staff was increased in 1858 at the rate of about 17 per cent.; but the cost of almost every necessary of life has increased more than 30 per cent. since that time; so that the scale of pay now amounts really to 17 per cent. less than it was prior to the advance being made; and this is felt the more now inasmuch as several emoluments and advantages which formerly existed were by the Royal Warrant of 1858 abolished. Amongst these may be reckoned the discontinuance of the forage allowance, which has been a direct loss, since a medical officer may be called upon to proceed at once on horseback to do duty at a battery, though he is actually an unmounted officer and without allowance for forage. It will be remembered how this regulation was the cause of an absurd discussion in the House of Commons last year, relative to a medical officer who accompanied the troops on a march in a dog-cart. Medical officers also, though not attached to a regiment, have to pay as much or more to the mess and band fund than is contributed by regimental officers of equal relative rank.

Besides this decrease, which is chiefly owing to the difference in the relative values of money between the two periods, the balance of income cannot by any means be considered as a net amount; since there are travelling expenses which become a heavy tax, and the practice of moving medical officers from regiment to regiment also entails considerable loss, and more especially in the case of married men. There are also compulsory payments to mess and band funds, etc.

Foreign service also, India alone excepted, invariably entails a positive loss. The allowances which were heretofore paid on a liberal scale are now cut down by the control department in a manner which is looked upon in the service as being cruelly unjust.

Assuming that the thirty years' service has been accomplished, and the maximum rate of pay attained, the practitioner will have acquired an average income of about £400 *per annum*. That this amount is far less than can be attained in civil life, or by any of the corresponding learned professions, is self-evident; whilst in the medical service there are no great, or very few, compensating prizes to be expected.

Respecting the rank and status of a medical officer: formerly, a junior surgeon ranked as an ensign; but as that position is now practically abolished, he virtually has no real status, and a man of thirty years of age takes a lower position than a boy cadet of eighteen. The nominal relative rank of a senior surgeon is frequently ignored by irresponsible officers, and the whole subject is in an unsatisfactory and anomalous state. The natural result of these evils is that a great feeling of deep discontent exists throughout the service. The feeling is totally destructive of all *esprit de corps*, and of that efficient and cheerful discharge of duty which is essential to the success of a medical man. It would be well, therefore, for the profession to consider the advisability of entering this branch of the Government service, until a thorough reorganisation has been made by revising the scale of pay, consolidating the service, reducing the term of a junior's service, readjusting the relative ranks and status on a definite basis, allowing a fixed and definite term for sick and other leave, which should be equal to that of combatant officers of the same footing, without loss of pay or allowance, and finally throwing open more prizes to the profession in the shape of Staff Hospital appointments and governorships, which are at present absorbed by military men. This reorganisation is a matter of vital moment to each member of the medical service, and one which, if left unperformed, will lead to such a want of recruits, as will entail a great scarcity of medical men in the army.

THE NAVAL MEDICAL SERVICE AS A CAREER FOR STUDENTS.

THE time has again come round when the young men of our profession, who are in future years to occupy the posts of practitioners or teachers, will assemble in the schools to gain the knowledge to qualify them for examination, and to derive the bias of their careers from the experience of their predecessors. Many there will be, whose minds will sway early towards the public services, which, if justly administered, should hold out to all who are found deserving the certainty of a respectable position in life, worthy of their calling, a fair chance of honourable distinctions for more than ordinary services, and the assurance of a sufficient maintenance, according to the rank which they have attained when their official careers shall have drawn to an end.

For such men there is already prepared, and in action, the "one portal system", which many ardent reformers desire to see established for the profession at large. That one portal is open to competitive examination to all who already possess the legal qualifications to practise medicine; and we may observe in it, on a small scale, the types of what would be displayed on a large one were the system adopted in full. It is seen that, at those examinations, the efforts of alumni are directed to this or that service which holds out the better prospects of the future; and they strive earnestly to gain, at first starting, that token of superiority which shall place them above their competitors; and we need not doubt that, "as the boy is father to the man", so they will realise in the future that pre-eminence they have asserted in the first stage of their careers.

As there are different branches of the public service open to the beginner, so there ever will be different walks in private practice holding out their special attractions and inducements to enter them; and we may expect to find men adopting this or that line of practice, guided by its highest inducements, but generally regulated by the degree of attainments of the seekers.

This has been remarkably displayed in the public services since these competitive examinations began, so that no one can fail to see that, in the scale of inducements, the Indian service stands *facile princeps*, attracting to itself the students who achieve the highest opinions of their conjoint examiners, as shown in the numbers of merit, as well as in the higher averages of all those who obtain its appointments. Next in order stands the Army service, and the lowest is the Navy.

It was not always so, as in times past the latter service had in it many men of high professional reputation; and, if we scrutinise the present active-list, it is found to contain among its officers of standing the names of several who shed lustre on it, and stand in good professional and scientific credit.

Unhappily, that branch of the public service has been allowed to decline greatly in its attractions, and a widespread discontent reigns supreme through it at present; the result of which is, that it cannot obtain a sufficiency of candidates to meet its wants, where the other two branches of the public services are far from being deficient of such as come up to the standard.

As far as we have gone into the causes of this, together with those of the very significant resignations of most of the young officers who have passed in with highest honours, we have it strongly impressed that, in addition to the discomforts of sea life, to which it is not easy for men to bow down with contentment, there is much reason for dissatisfaction with their relative position on board ship to other classes of officers with whom they are at least equals on shore. Finding this to pervade the naval system to the highest grades of their branch, of which the greatest rewards are inferior to those of the sister service, while its highest object of ambition has been surreptitiously abstracted from the active service to which it belongs in the army, they conclude that it is best to quit in time a service thus weighted throughout, and many such have then passed creditably into the kindred services.

To oppose this desire to go, means have been had recourse to which can only appal young ardent minds; and some, regardless of technicalities, have broken the tie, and have found the terrors of the law in full force against them. Some who have tendered their resignations have been refused, until, goaded to insubordination, they have brought themselves into positions from which their natures would have recoiled. Some, who have declined to accept appointments after asking permission to resign, have been "dismissed the service"; and opposition has been offered to the appointment in another service of a blameless young physician, who, after having served three years afloat, had obtained his discharge from the Navy, and then had passed into the other service.

This organised system of "terrorism" can have but one effect—viz., to deter every considerate young man from thinking of the Navy as the starting-point in his career until the practices now in vogue are rescinded, and more temperate counsels prevail. We are aware, that Boards, as well as individuals, are sometimes led into cardinal errors which it may be difficult to retrieve; but, in such cases, it is sound policy to do all that can be done to mitigate the consequences of their acts; and we trust that, in the face of the disastrous resignations and utterly inadequate supply of junior medical officers for Her Majesty's Fleet, such measures will very shortly be taken as will re-establish the popularity of the service in the medical schools, and draw once more into the medical branch of the Navy a sufficient amount of that professional skill and zeal which recent errors in administration have tended to diminish.

THE Lincoln County Hospital Building Fund now amounts to £16,727 14s.

BY an order of the Local Government Board, the Town Council of Exeter have been constituted the Port Sanitary Authority within the Cheekstone Rock.

DR. RUTHERFORD, the able Professor of Physiology in King's College, London, has been elected to succeed Professor Hughes Bennett in the chair of Institutes of Medicine or Physiology in the University of Edinburgh. The appointment is one which will certainly redound to the honour and add to the usefulness of the University. Professor Rutherford will be much missed in London.

MANY invalids intending to winter at Cannes this year, will be glad to hear that Dr. Marcet has fixed his abode there, where his medical skill will reinforce the experience already gained by the English practitioners now established in that delightful winter resort.

AT the first meeting of the Northumberland and Durham Medical Association for the session 1874-75, it was resolved to raise some memorial to the late Dr. Charlton; and the officers of the Association were constituted a committee to carry the resolution into effect.

THE INTRODUCTORY AT GUY'S HOSPITAL.

As the hour for the delivery of Sir William Gull's address, on Thursday, drew near, it was quite evident, from the crowded appearance of the corridors, the museum, and its approaches, that the anatomical theatre would be unable to hold the numbers who had assembled to listen to the lecture. Every available inch of space was occupied long before two o'clock, and still it appeared that some hundreds of expectant hearers were outside the lecture-room. Under these circumstances, it was agreed by the hospital authorities, about a quarter past two o'clock, that the meeting should adjourn to the large hall of the Bridge House Hotel. This accordingly was done; and, as it seemed doubtful to each one in the crowd whether he might not be eventually excluded if he lagged behind in the race, the passers-by in the Borough and St. Thomas's Street must have been considerably puzzled to account for the sudden appearance upon the pathway of a mass of young, middle-aged, and elderly men, all using their best speed to attain the common goal. We may be sure that good lungs and fleet limbs carried the day, and landed their owners in the front seats. When the seething crowd had somewhat subsided into quietude, Sir William Gull commenced his address. We need scarcely say he was listened to with marked attention, and his most able address was justly applauded. We are happy to be able to print the lecture at this early date; so that those who were not present at its delivery may at their leisure peruse an address which justifies the great interest it excited. At the conclusion of the lecture, the Treasurer delivered the medals and certificates to the students who gained prizes during the past session.

DEVON AND EXETER HOSPITAL.

AT the conclusion of the business of the weekly Board last week, the results of the annual examination of the students of the hospital were made known, and the prizes distributed by the Vice-President (C. J. Follett, Esq.) The prize given by the Committee was awarded to Mr. R. J. Bryden, who was first in Anatomy and Physiology, and who passed well in Medicine and Surgery. The medical officers' prize was awarded to Mr. Lewis Reynolds, as being first in Surgery. In Medicine, Mr. Wheaton received a certificate of merit. The Vice-President addressed a few remarks of advice and encouragement to those students who are leaving to continue their studies in the larger schools of the metropolis, especially urging them to retain a grateful recollection of their old *Alma Mater*. Mr. Roper, senior surgeon of the hospital, in thanking the Vice-President for his attendance, called attention to the exertions of the house-surgeon of the hospital in the cause of medical education in Exeter, and expressed a hope that the time was not far distant when the provincial hospitals should take their proper standing as the schools of medical study for the counties in which they were placed, and so properly prepare the aspirants to medical knowledge to duly profit by the immense advantages offered them in the larger fields of the metropolitan schools.

THE GERMAN SANITARY CONGRESS.

THE second meeting of the German Public Health Association was held on September 12th and three following days in Dantzig, under the presidency of Dr. Ehrhardt of Munich. The first subject on the programme was "the demands of Public Hygiene on the regulation of the buildings of new parts of towns, streets, and houses". The subject was ably treated of by Dr. Strassmann of Berlin and Herr von Haselberg, architect, of Stralsund; and was discussed with animation by the meeting. The questions of the value or worthlessness of a detached plan of building, and of the evils of cellar-dwellings, were especially considered; and the further consideration of the subject was deferred to the next meeting of the Society. The second question was "the influence of different dwellings on the health of the inmates, so far as could be ascertained from statistics". The information derived from observations made in Berlin supported the opinion already held as to the unhealthiness both of cellars and of attics, and their liability to become seats of diarrhœal disease. The second day (September 13th) was devoted to an examination of the drainage and sewerage of Berlin, under the guidance of Herr von Winter. On the 14th, the subject discussed was—"the reasons for and against the congregation of different kinds of disease in a hospital". The reporter, Herr Sander of Barmen, expressed himself as opposed to many special hospitals, which he held to be necessary only for small-pox, petechial typhus, and cholera. He also combated the opinion that large institutions compared unfavourably with small ones as regarded their sanitary condition. Dr. Hirt of Berlin brought forward some very instructive facts in reporting on "the employment of women in factories"; referring especially to the injurious influence of certain branches of industry, especially those in which mercury, lead, arsenic, and phosphorus were used, on pregnant women. In these they were liable to produce abortion, and he held that women ought to be excluded from such labour during gestation. At the next sitting, Professor Reichardt of Jena and Engineer Schmick of Dresden urged the necessity of a supply of spring-water to towns, even though great difficulties had to be overcome. Their report was approved by the assembly. A discussion also took place with reference to the effect of the law of 1868 on the erection of public slaughter-houses. Herr Jäger of Ebersfeld, the reporter, expressed his opinion that the establishment of such institutions was a measure productive of good, not of ill. The general opinion of the meeting was, that their erection ought to be made compulsory on the local authorities instead of being voluntary. It was decided to hold the next meeting of the Association in Munich. The Association consists of 552 members.

THE SOCIAL SCIENCE ASSOCIATION.

THE annual meeting of the National Association for the Promotion of Social Science commenced on Tuesday last, in Glasgow. The Public Health Section was presided over by Dr. Lyon Playfair, C.B., M.P. The special questions for discussion in this department are: (1) What are the best methods of sewering towns, and of disposing of their organic refuse? (2) In what way can healthy dwellings for working classes be erected in lieu of those removed for the purpose of carrying out sanitary or municipal improvement, or for other purposes? And (3) What influence has the employment of mothers in manufactures on infant mortality, and ought any and what restrictions to be placed on such employment? In addition to these papers, voluntary papers on the following subjects are announced: "The Neglect of Children in Large Towns, with some Remarks on the Crèche System", by the Rev. Dr. Elder Cumming; "On the Science of Disinfection", by Dr. John Dougall; "Infantile Mortality at Carlisle during the last Twenty Years", by Dr. Elliot, Carlisle; "On Some Shortcomings of the Public Health (Scotland) Act, 1867, and the Statutory Powers required to amend it", by Mr. K. M. M'Leod; "On Eighteen Months' Practical Enforcement of the Adulteration of Food Act, 1872, and the Conclusions drawn therefrom", also by Mr. M'Leod; "The Influence of Cisterns upon Water used for Domestic Purposes", by Mr. Pattison Muir; and "The Health of American Cities", by a Delegate from the Boston Association.

REPORTED CASE OF ASIATIC CHOLERA.

IN reference to a case of Asiatic cholera, asserted to have occurred near Portland Place, Dr. Whitmore, the medical officer of the district, informs us that he investigated it by the official advice of Mr. Netten Radcliffe, and, after having fully entered into all the particulars of the case, is of opinion that it was not Asiatic cholera, but simple cholera disease, or what is technically termed "cholera nostras".

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FROM the calendar of this institution for 1874, which has just been published, it appears that during the year from Midsummer-day, 1873, to Midsummer-day, 1874, 365 candidates passed the preliminary examination in general knowledge for the Fellowship and Membership of the College; 683 were admitted to the primary examination in anatomy and physiology, of which number 441 passed. The diploma of Member was granted to 342, and that of Fellow of the College to 11 candidates after undergoing the required examinations. The total income of the College from all sources in the year amounted to £13,093 1s. 3d. The disbursements over the same period were £12,672 14s. 5d., which includes the cost of the *conversazione* (£318) given by the College in August 1873. The following are the members of the Court of Examiners for the ensuing year:—Anatomy, Physiology, and Surgery: Mr. F. Le Gros Clark, F.R.S. (President), Mr. John Hilton, F.R.S., Mr. Hancock, Mr. Savory, F.R.S., Mr. T. B. Curling, F.R.S., Mr. Spencer Smith, Mr. Birkett, Mr. Holden, Mr. Marshall, F.R.S., and Mr. Holmes. Medicine: Dr. Peacock and Dr. Wilks. Midwifery: Dr. Arthur Farre, Dr. Barnes, and Dr. Priestley.

THE LATE MR. BRANSBY FRANCIS.

THE funeral of the late Mr. Francis took place on September 23rd. He was buried in the churchyard of the village of Costessey. A vast concourse of people assembled to witness the ceremony; the places of business along the route of the procession were all closed; and every mark of respect was paid on all hands to the memory of the deceased.

UNWHOLESOME FOOD.

A CURIOUS case was tried at Bishop Auckland recently, before a full bench of magistrates, which shows the difficulties which may arise in the inspection of meat. Dr. Manson, the medical officer of health, had condemned the carcase of a heifer, and summoned the owner, William Coulton, a butcher, for exposing unwholesome meat for sale. Dr. Manson said that from the appearance of the carcase the animal had suffered, when alive, from tuberculosis, and therefore the meat was unfit for human consumption. Mr. Mulvey, a veterinary surgeon, supported this view, as the whole cavity of the thorax and abdomen was studded with tuberculous deposits. On the other hand, Mr. John Farrow, another veterinary surgeon, deposed that the carcase was that of a perfectly healthy animal, notwithstanding the tubercles, which were of a hard bony nature, and entirely free from suppuration. The disease, not being a blood-disease, did not render the meat unfit for human consumption. This evidence was supported by several butchers and salesmen; and in the end, the bench decided upon dismissing the case, saying "that, having heard the conflicting evidence which has been given, we believe that both sides have given their evidence *bonâ fide.* Still, as there is a doubt about the animal being unfit for human food or not, we should not, after the important evidence which we have heard, be justified in convicting".

INCREASE OF SCARLET FEVER IN LONDON.

AT a meeting of the Metropolitan Asylums Board on Saturday last, the reports which were read showed that fevers were very prevalent, and scarlet fever especially so, among the lower classes in the crowded districts of London. In Stockwell Asylum, Mr. J. A. Shaw Stewart reported that, since the last meeting, 187 cases had been admitted into the fever side; that 21 deaths had occurred, and 110 had been discharged, leaving 116 cases under treatment. Of these cases, 80 were of scarlet fever; and St. Giles's and Westminster had, of the parishes allocated to this asylum, sent the most. Of 52 cases of typhus, Greenwich had sent 30. Mr. Barringer presented the report of the Homerton Asylum, allocated to the parishes on the north side of the river; and this showed the like results as to the epidemic of scarlet fever. In the eight weeks, 206 cases of fever had been admitted, 129 had been discharged in the same time, 41 had died, leaving 144 under treatment. Of the 206 admitted, 114 were of scarlet fever, 24 of enteric, and 29 of typhus. The parishes which sent the most scarlet fever were Holborn, St. George's-in-the-East, and Bethnal Green; while Whitechapel of itself contributed half of the typhus cases. Some conversation arose with regard to the prevalence of fever; and it was suggested to the committees of these asylums to consider whether it would be advisable, in the event of fever still increasing in the metropolis, to utilise the empty, or nearly empty, small-pox asylums for this epidemic.

HOSPITAL SATURDAY.

THIS movement, which commenced with the working men, seems to have been taken up with great spirit. The directors of the Crystal Palace have arranged a grand *fête*, in furtherance of the objects in view, on Saturday, the 3rd inst. (this day). In its present shape, however, we believe that the movement more likely to be injurious than beneficial in its effects.

THE WORCESTER TRAINING SHIP.

A SEVERE outbreak of scarlet fever is said to have occurred amongst the boys on board this ship. The authorities of the vessel, however, having acted promptly on the advice of the sanitary officers, the epidemic has been checked, and effective measures taken to prevent its spreading. Great complaints have been made of the want of space for sleeping accommodation, as well as defective ventilation of the vessel.

HUNTERIAN SOCIETY.

THE first meeting of this Society for the season will take place at the London Institution on October 14th, at 8 P.M., when Dr. Richardson, F.R.S., will read a paper on the "Pathological Results of Pectous Change in Colloidal Structures". We are requested to inform those gentlemen who are interested in this subject, that the Council of the Hunterian Society will be happy to see them at this meeting.

A MORBID APPETITE.

AN inmate of the Prestwich Lunatic Asylum has died from peritonitis, caused by swallowing a large number of iron nails and other indigestible substances. In the stomach of the deceased were found 1 lb. 10 oz. of iron in the form of nails, some of which were an inch and a half in length, several pieces of iron half an inch square, and the blade of a cobbler's awl.

THE PLAGUE IN THE EAST.

WE learn from a correspondent, that the Governor-General of Algiers has issued a circular, dated September 8th, in which he says that the presence of the plague in the East being now certain, and constituting a danger for Europe, Algerians are strictly forbidden to take part in any pilgrimage to Mecca this year.

SEPARATE MEDICAL EDUCATION FOR WOMEN.

THREE or four ladies having pressed for permission to enter themselves as students in the Madras Medical College, their application has led to an interesting discussion between the Madras officials. Dr. Smith, the Principal of the College, addressing the Director of Public Instruction on the subject, says that he entertains no objection to the proposal, but holds that "female students of medicine should prosecute their professional studies at medical schools and at hospital wards other than those attended by students of the male sex. I maintain", adds Dr. Smith, "that the laws of purity and modesty imperatively demand that in their strictly professional instruction and practical training the sexes should be separated, mixed classes being, from my point of view, an outrage upon common decency". The Director of Public Instruction likewise says, "I cannot but think that the delicacy of feeling and other womanly qualities which now exalt females and make them refining and purifying elements of society, will suffer sadly from innovation". In the meantime, the Government of Madras has requested the Principal of the College to report whether arrangements for the separate education of women in medicine cannot be made without great additional expense.

THE ASSOCIATION OF GERMAN NATURALISTS AND PHYSICIANS.

THE forty-seventh meeting of the Association of German Naturalists and Physicians was held in Breslau during the week from September 18th to 24th. At the meeting in Wiesbaden last year, when Breslau was proposed as the place of meeting, it was objected to by some, as being not sufficiently north. The question was settled by Professor Löwig, who said that in South Germany people drank wine from tumblers and ate unsalted butter; while in North Germany they used salt with their butter, and drank wine out of wine-glasses. The habits of the Breslauers in these matters proved them to be North Germans; and therefore Breslau was selected. The business of the meeting commenced with an address by Dr. Löwig, professor of chemistry in the Breslau University; after which the Association was addressed in terms of welcome, by Baron von Wordenflycht, President of the province of Silesia, by the chief Burgomaster of Breslau, Herr von Forckenbeck, on the part of the city, and by Professor Heidenhain on behalf of the University. The meeting appears to have been, as is usually the case with this Association, very successful both scientifically and socially. There has been, however, as the *Wiener Medizinische Wochenschrift* points out, too great a tendency in late years to the formation of special sections. Thus there was this year for the first time a section of Balneology, which was so thinly attended that it was decided in future to treat the subject as a department of practical medicine. The attendance in the section of Aural Surgery was also very small. It was decided—five members only dissenting—to hold the next annual meeting at Gratz in Bohemia. The *Wiener Medizinische Wochenschrift* is justly exultant over this decision, as indicating that German science is not limited by political boundaries.

A MEDICAL REGISTRATION CASE.

AT the Durham Sessions, before a full bench of magistrates, on September 26th, Mr. John Fisher Le Page was charged on remand for having, on the 25th day of March, at the township of Brandon and Byshottles, unlawfully, wilfully, and falsely taken and used the name or title of surgeon, thereby implying that he was then registered under the Medical Act, 1858, contrary to section 40 of the said Medical Act. He was also charged with having, on the 27th March, unlawfully, wilfully, and falsely used the name or title of a physician. For the prosecution, Mr. Brignal stated that Mr. Fisher Le Page held a qualification as a pharmaceutical chemist, and a short time ago was in the service of Mr. Robson of Durham, surgeon, as his assistant at Brandon Colliery; but subsequently the miners dissolved their connection with Mr. Robson. The defendant, however, has continued to attend the workmen and their families as a medical practitioner. Mr. Fisher Le Page did not possess the requisite qualifications; but he evidently found that practising in the locality as a medical man was very remunerative employment, and, in order to keep himself beyond the reach of the law, he engaged an assistant who possessed the necessary qualifications, and, whenever a certificate was given, it bore the names of both Mr. Fisher Le Page and his assistant. It had been ruled, however, in the case of Andrews *v.* Styrap (*Law Times*, v. 26, p. 704) that it was illegal to bracket two names together in one certificate in cases where one name was that of a duly qualified man and the other an unqualified one. In this case, the defendant was only a pharmaceutical chemist, and not that by examination. The assumption of medical titles by persons not entitled to them was a great wrong and hardship to gentlemen who had spent both their time and money whilst studying at college for their degrees. Although these proceedings were not taken at the expense of the Medical Council of Great Britain, yet they were taken with their sanction and concurrence. The Council, indeed, had no funds which could be appropriated in defraying the cost of a prosecution of this kind. For the defendant, Mr. Blackwell said that no case had been made out. In the case of Pedgrift *v.* Chevalier (*Law Times*, v. 2, p. 360), the judges who decided that case held that the mere fact of the absence of a person's name from the *Medical Register* was not sufficient to warrant a conviction under section 40 of the Medical Act. The magistrates, after consultation, decided on dismissing the case, having decided that it was ruled by the judgment quoted. In doing so, they were guided by the decision of the judges as to what should be proved before a conviction can follow. The magistrates refused to grant a case, but afterwards granted a certificate of refusal under the 4th section of the 20th and 21st c. 43, to enable the case to go before the Queen's Bench.

MORTALITY OF EUROPEANS IN INDIA.

A RETURN, included in the report of the Select Committee on East India Finance, gives statistics regarding the rates of mortality prevailing among English regiments in India between 1864 and 1870. After comparing the British Army in India, as a whole, with several regiments arriving between 1864 and 1869, Surgeon-Major Bryden, who prepared the return, arrived at the following conclusions. In every 1,000 soldiers under twenty years of age in the whole army, the death-rate was 7.61; under twenty-five years, 13.67; under thirty years, 17.41; and above that age, 29.94, giving a total of 68.63. Among the newly arrived regiments, the rate per 1,000 was 12.93 under twenty years, 24.87 under twenty-five years, 39.32 under thirty years, and 47.08 above that age—giving a total of 124.20, or nearly double the mortality in acclimatised regiments. From this it follows that European soldiers are exposed to twice as much danger during the first half of their stay in India as during the last moiety. On comparing the ratio of liability to death, nearly the same conclusions are reached in both cases. Among soldiers under twenty years of age, the percentage of mortality was only about one-quarter of that prevailing among those over thirty years, while between twenty and twenty-five years it was considerably less than between twenty-five and thirty years. This fact appears to prove the fallacy of the belief that young soldiers die off more quickly in India than veterans. Another column in the return, giving the mortality in newly arrived regiments during the second year of their Indian residence, serves to establish the same conclusion. In each 1,000 the death-rate was 3.95 among those under twenty years old, 15.84 under twenty-five years, 23.08 under thirty years, and 35.61 above that age, being a total mortality of 78.48. Since the average in the whole army was 68.63, and among regiments during their first five years of service 124.20, it would appear to follow that the most dangerous period for Europeans in India is between the second and sixth years of their residence in that country.

IRELAND.

CARDINAL CULLEN laid the foundation-stone of a new hospital at Harrymount, Kingstown, on Thursday, October 1st. It is to be called St. Michael's Hospital.

THE guardians of the Naas Union have granted a superannuation to Dr. George Robinson, Medical Officer of the Blessington and Ballyemore-Eustace Dispensary District, equivalent to two-thirds of his late salary.

MEATH HOSPITAL, DUBLIN.

AT a late meeting of the Committee of Management of this Hospital, it was resolved—"That, it appearing to the Committee that the receipts from subscriptions have seriously fallen off, and that it is largely due to the agitation for a Hospital Sunday, and consequently withholding of support from it and kindred institutions; and that, learning that a Committee has been formed of those institutions who are unfavourable to the movement, Dr. Owens and Mr. Garratt be selected to represent this Hospital on such Committee, and prevent any further loss."

DUBLIN MAIN DRAINAGE.

WE lately referred to the fact that three engineers had been appointed by the Corporation of Dublin to examine into various schemes, sixty-seven in number, for the purification of the river Liffey. They have now sent out a report, and are unanimous in condemning all the plans placed before them; but, as a recompense for this sweeping conclusion, they have suggested a plan of their own—viz, that intercepting sewers are to be constructed on both sides of the Liffey, one of which will discharge half the sewage of the city into the sea close to the Pigeon House Wall, and the other will empty itself close to Clontarf. These sewers are estimated to cost £190,000; but £30,000 in addition is specified for the formation of a reservoir for flushing the sewers, to be completed near Blessington, a village eighteen miles distant; making a total of £220,000. We doubt that anything will be done, temporary or otherwise, until next year's summer brings the matter again into prominence. We may add that the great epidemic of scarlatina which has caused in Dublin, during the last three months, no fewer than 236 deaths, may in a great measure be attributed to the effluvia from this river; and the result is the more melancholy, when it is remembered that an offer by Sir John Arnott to purify the Liffey without a farthing of expense to the citizens was rejected by the Corporation of Dublin.

HOSPITAL SUNDAY.

SEVERAL gentlemen, representatives of various charitable institutions in Dublin, believing that this movement will have the effect of curtailing the annual subscriptions obtained by the several hospitals in which they are interested, have expressed their intention for this reason to oppose the movement. At present, it is determined to hold simultaneous collections on November 15th in one hundred and two churches in Dublin, and we are convinced that the result will be satisfactory; but, at all events, we consider it premature to start an opposition until time has been given to see whether a failure will result or not.

TESTIMONIAL TO DR. HALPIN.

A MOVEMENT has been instituted in Arklow, by several of the residents of that town, to present a testimonial of a suitable kind to Dr. Halpin, medical officer of the district. Dr. Halpin's services during the past twenty years well qualify him for this mark of attention from his friends and admirers.

FEVER AT BALLYMONEY.

DR. M'ILROY, of the Castlequarter Dispensary District, reports to the guardians of the Ballymoney Union that for the past five or six weeks there has been a considerable amount of typhoid fever in his district, and that a similar visitation has taken place for the past five years at he same season of the year. On investigation, he found the sanitary condition of the parties attacked to be of the worst description; in nearly every house, decayed vegetable matter, with all sorts of filth, being allowed to remain in heaps so close to the habitations as to be deleterious to health. The drinking-water in many cases was also unfit for use, putrefying organic matter being present to a dangerous extent. The Board have directed their relieving officer to ascertain where these nuisances exist, and to take the necessary measures for their removal.

ABSTRACTS OF
INTRODUCTORY ADDRESSES
DELIVERED AT
THE METROPOLITAN AND PROVINCIAL SCHOOLS,
On OCTOBER 1st, 1874.

KING'S COLLEGE.

AT King's College, the opening lecture was delivered by Dr. FERRIER, Professor of Forensic Medicine and Assistant-Physician to the Hospital.

The lecturer, after welcoming the students, old and new, remarked that the study of medicine was one which presented peculiar attractions, dealing as it does with subjects of universal curiosity and interest, besides being of a continually progressive nature, and offering practically unlimited fields for new and original research. The important position and great influence which the medical profession at present possessed entailed all the graver responsibilities on those who would worthily fit themselves for their professional duties. In the short time allotted to medical study, almost the whole circle of the sciences had to be gone through. The impossibility of doing all well had led to serious doubts on the part of those whose opinion on medical education was of the greatest weight, whether some of the subjects at present included in the medical curriculum should not be cut out, so as to allow greater concentration on the more purely practical subjects. Thus botany and natural history, which can hardly be considered necessary to enable a man to recognise and treat disease, were proposed to be excluded. The lecturer admitted that, so far as purely practical work was concerned, these, as well as some other subjects which had to be studied, were not absolutely essential; but he thought there was danger in fostering the natural narrowing tendency of all purely professional pursuits to the exclusion of that breadth of scientific culture which had always been the boast of the medical profession, and to which as much as to its mere handicraft skill it owed its recent progress and present position. The disproportion between the proficiency achieved and the time spent in studying these accessory sciences, he thought, was much exaggerated; and he pointed out various relations in which even only a general acquaintance with these subjects was of the utmost practical importance.

While some branches of medical study might, without disparagement to them, be admitted to be only of secondary importance, there were others which claimed special attention as constituting the very foundation of all rational appreciation and treatment of disease. Prominent among these stood Physiology, the claims of which he desired to urge, not so much in reference to its position as the key to all scientific knowledge of the nature of disease, which all admitted, but to the less generally recognised important bearing it had on therapeutics or the treatment of disease. The tendency of modern medicine was to place therapeutics on a rational and scientific basis, in contradistinction to its present position, that of almost pure empiricism. Notwithstanding the thousands of years during which medicine had been cultivated, and the numerous scientific discoveries which helped to constitute the body of medical science, the term science was scarcely applicable to that department of it which related to the treatment of disease by means of remedies. Nor would it be, till we had succeeded in establishing more definite and precise laws regarding the efficacy and mode of action of drugs. There was hope that, by the study of experimental pathology and experimental pharmacology, which were only branches of physiological investigation, we might realise a science of therapeutics. The method here indicated as that which rational medicine ought to pursue was, however, opposed by many, who regarded as misleading all attempts to rationalise therapeutics by reasonings founded on physiological experimentation on the lower animals, and who looked upon pure clinical research as the only road to trustworthy results. In support of this position, many arguments were advanced; among others, the mischievous and pernicious errors which the history of medicine showed to have been the consequence of neglecting clinical observation to indulge in theoretical speculation and physiological theories regarding disease and its treatment. The lecturer proceeded to discuss how far a parallel could be drawn between the early efforts of medical philosophers and the methods inculcated by the physiological physicians of the present day. He gave a short sketch of the development of therapeutics and of the history of the chief revolutions of medical science, and showed that these truly demonstrated the pernicious consequences of medical practice directed by pathological and physiological theories founded on abstract speculation, and not on the contemplation of nature; and that, though through many errors some valuable facts had been established of which we reaped the benefit, yet they had often been arrived at by a reckless and hazardous system of experimentation on human beings, which had cost many lives, and from which multitudes had only escaped with debilitated and impaired constitutions. There was, however, little or no analogy between the physiology and pathology of the past and that of the present day, which was founded on rigid experiment conducted according to exact and precise method, and which discouraged all attempts to solve difficulties by mere abstract speculation. To physiological investigation of this character, we owed most of our recent progress in accurate knowledge of the intimate nature of diseased conditions. But, with all this advance in scientific knowledge of disease and its diagnosis, we were, as far as regards treatment, little better than empirics, unable to give any other reason for our practice than that it had been found beneficial by those who preceded us. And yet how eagerly every one, even the most rigid empiric, advanced some theory as to the physiological action of the drug he prescribed, and sought to support his treatment on some rational physiological or pathological foundation. The backward state of therapeutics naturally pointed to some peculiar difficulties inherent in the subject, or to some imperfections in the method of its cultivation. That the study of therapeutics presented difficulties not encountered in the exact science was a fact, the truth of which was easily demonstrated, but which was too often forgotten in the satires levelled at the uncertainty of medicine. The problems to be solved, incapable of being stated with all their data, could not be referred to exact calculation. Man in a state of health, and much more so in a state of disease, presented such a complex assemblage of phenomena, that the discovery of causes by mere clinical observation could not but be slow and always uncertain. The uncomplicated natural history of disease was difficult to ascertain; diseases varied and had special features imparted to them by the individuality of the patient; the mental emotions played an important part in the causation, progress, and cure of the disease; so that, to allow for each and all of these as well as many others, to estimate the exact proportion which each had in the production of the phenomena observed during the progress of treatment, to discount deficiencies and imperfections on the part of the observer, to eliminate all collateral circumstances of personal or other interest in the results recorded, constituted a mass of difficulty which the experience of countless generations had not yet been able to resolve. For, if we must believe the results of therapeutic research conducted under such conditions, we should be obliged to admit that the same diseases had been equally well cured by the most sanguinary and heroic, and by the most mild and expectant treatment; by remedies founded on the rational pathology of the disease; by infinitesimal parts of nothing; and by peppermint-water. With such conflicting evidence as to the value of therapeutics, need it be wondered that "doctors differ" had become a byword, and that many thinking men, despairing of certainty, had rushed into inveterate scepticism as to the value of medicine in general, and had assumed the position of "benevolent neutrality", declining to interfere between the patient and the *vis medicatrix naturæ*?

It was in the nature of the subject, pursued as it had been, that such things should exist; but that we should rest and be thankful, and accept as ultimate facts conditions which might be capable of being overcome, was hardly in consistence with the general spirit of scientific inquiry. We must recognise the necessity of reducing the problem to more limited dimensions, and of bringing the conditions of the investigation under our control, by applying to therapeutics the same exact system of experimentation which had done so much to advance the sciences of physiology and pathology. To experiment on human beings, after the manner of old, was contrary to the genius of the profession, and the progress of research pointed to experimentation on the lower animals as the only means of arriving at that knowledge of the exact action of drugs, which was necessary before a rational treatment could be linked on to a rational pathology. Against this method there were numerous objections, some of which were worthy of serious consideration. It is urged, with some show of reason, that we were not justified in transferring to human beings the results of pharmacological investigation on the lower animals, on account of the differences observed to exist, many drugs which had a powerful action on man exerting little or no influence on animals, and *vice versâ*. These facts were acknowledged, and several individual instances were discussed, but these anomalies were not to be regarded as ultimate facts any more than the so-called idiosyncrasies observable among patients. Physiological research had already succeeded in explaining several of these peculiarities; and though all difficulties had not been cleared up, the progress made justified the hope that they would all ultimately be removed. In the cases where animals and men were affected in all outward respects in a similar manner, and these only were argued from, unless physiology were a fallacy and biology a myth, the establishment of the action of the drug on one of the lower animals was applicable to man.

Hasty generalisation was greatly to be deprecated, and clinical observation, instead of being neglected by scientific therapeutists, required to be, if possible, more thorough, more accurate, and more minute. The differences occasionally arising between "practical men" and experimentalists showed the necessity that existed for a more thorough union of the physiologist with the physician. The results of trustworthy experience were by no means to be disregarded by the pharmacologist. Often the most successful practice was united with the most erroneous theory as to the action of medicines; but, though the theory was proved on investigation to be false, it by no means followed that the treatment should be abandoned. It was more philosophical to endeavour to ascertain the real foundation of its proved usefulness.

It was sometimes assumed that pharmacological investigation had added but little to our materia medica, as compared with the numerous valuable remedies which had been discovered and established by the method of empiricism which the rational physician would decry. No doubt, many of our most highly prized drugs were the result of lucky accident, but many more were the result of hazardous experiments on patients.

We could not always wait for lucky accidents, nor were we justified in experimenting on those who sought our aid. Yet, it could not be said that therapeutics had reached perfection; witness such opprobria of medicine, as cholera, zymotic disease, hydrophobia, etc., before which we had to confess ourselves almost powerless. Physiological research had established many valuable remedies, witness the anæsthetics, hydrate of chloral, nitrite of amyl, Calabar bean, and many others, besides extending the use of many already known, while the ascertained facts of physiological antagonism had enabled us to counteract successfully many formerly invariably fatal poisons. Results such as these justified the hope that physiological research would one day clear away the many opprobria of practical medicine. Yet there had been some danger that the progress of scientific medicine should be discouraged by the outcry of a certain class against what they called the inhumanity and cruelty of physiological investigation. The lecturer had no intention of making an *apologia vivisectionis*, for he despaired of convincing its opponents of its morality, seeing it only rested on a principle which was acted on, and necessarily, in almost every relation of life. But he strongly objected to the conduct of those who, professing to have such delicate sensibilities, pryed into what was not written for them, merely for the purpose of misrepresentation and vilifying in the public prints those who might be actuated by as high principles of humanity as themselves. To another numerous class, a proverb was applicable, which defined certain persons as unfit to see things half done, viz., those who could appreciate the benefits arising from certain physiological experiments, but were unable to understand the bearing or practical benefits to be derived from others of a similar nature, and would, therefore, oppose them as wrong and unnecessary. To such vexatious opposition, it was to be hoped there would soon be an end, but apparently with little chance of immediate realisation in a curious age of general enlightenment and holy pilgrimages. The lecturer concluded with the hope that he might have excited some degree of enthusiasm for the cultivation of rational medicine.

ST. MARY'S HOSPITAL.

THE Introductory Address was delivered by Mr. EDMUND OWEN, Assistant-Surgeon to the Hospital.

Addressing his hearers as "fellow-students of medicine", Mr. Owen assured them of the pleasure and responsibility which he experienced in being honoured with the task of offering them the formal introduction to their studies. Having bidden welcome to those gentlemen who were present as friends of the School and visitors, he begged the indulgence of their attention whilst he treated on subjects more or less connected with medical education.

The "introductory address" had been frequently spoken of as of questionable value; and this the lecturer thought to be due to a great extent to its being made anything but an address to neophytes, and, instead of containing much good and earnest advice, being often made the occasion of advancing the author's own peculiar views of medical or general science, or of well wrought arguments beyond the general ken. He thought that it should be rendered in its aim as nearly like that most celebrated of all addresses which was delivered nearly three centuries ago by an earnest queen on the eve of a most important event; then, indeed, it might have the desired effect of awakening in the young student a proper appreciation of the golden opportunities which were about to be offered to him.

Mr. Owen advised the new students to procure a small dictionary of medical terms, and to make it a rule to inform themselves, in one way or another, on all subjects which they might hear discussed, and which they might not at first comprehend. He advised them to read over the subject of a lecture before entering the theatre, and to be content with taking the shortest notes of a lecture or demonstration, lest they lost much of what was being said, and more of what was being shown. Experience had also taught him that the fuller the notes were of a lecture, the less inclination would there be to wade through them in the evening. He assured them that, even if they found reading most uncongenial, if they only made up their minds to conquer it, they would succeed; for, by gentle and continuous exercise of the intellect, it could be rendered completely subservient to the will. If, after working for some time at any one subject, it became wearisome, it should be put aside, as Dr. Carpenter recommended, and something else allowed to take its place—even play. Mr. Owen suggested that the best time for work would be between the hours of nine o'clock in the morning and one. He had been often informed from reliable sources, that those hours were most productive when the grass was heavy with the dew, but upon this point he could not speak from personal observation. Of this, however, he could authoritatively assure them: that, if they got into the habit of reading late at night and into the small hours of the morning, their health must suffer. He much regretted that many students only worked at their professional education when an examination began to stare them in the face—matching, as it were, the intellect against time. Such a process of cramming was extremely bad, the information so quickly acquired as quickly vanishing.

Having given further advice on the way of working, Mr. Owen passed to the subject of the exercise of memory, and of the artificial aids to which many had recourse. The great mind looked upon such schemes as intellectual trickery; but in these days, when the medical student was called upon to burden his memory with much information which would be of little practical use to him in after-life, he would of necessity develope some such artificial support. The idle man would abuse it; and thus names were found cropping up in examination answers, for which the only excuse which could be urged was, that they had the same initial letter as those which were required. But surely it was a legitimate help to inform the student who was occupied with the difficult subject of ossification, that the ossific centres were equal in number to the letters in the word in the case of *vertebra*, *rib*, *sternum*, *scapula*, *humerus*, and *femur*.

Whilst the student was occupied with his technical studies, he must be on his guard lest his imagination become cramped from a long captivity; and to this end it would be well for him to find time for reading the works of such authors as Shakespeare, George Eliot, or any other writer for whom he may have already acquired a liking. The lecturer cited these authors on account of their great familiarity with medical occupations and line of life. He also called attention to the value of the drama as a popular educator; and, whilst regretting that it did not hold a more prominent and beneficial position at the present day, recommended his hearers to see as much of Shakespeare, Sheridan, and Goldsmith, as might not be incompatible with severer studies. Referring them to the value of the proper use of a well exercised imagination, he reminded his hearers that without it the names of Columbus, Jenner, and Harvey, would not have become immortal.

The lecturer found great fault with our present sytem of medical education, attributing most of its weaknesses to one of two causes—the forced attendance of students upon lectures, and the multiplicity of metropolitan medical schools, with a consequent waste of teaching material. With regard to the former defect, the only plea which he had yet heard urged in its favour was, that the public required the "signing up" as a guarantee that the medical student was in the way of obtaining knowledge. For his own part, he felt sure that the public were as ignorant as they were careless upon the whole system of acquiring medical knowledge, and would be quite content that the final examination should remain the test of a man's fitness to practise his profession. It always seemed to him a most unhealthy system, that all students of a certain year should be driven in to lecture, without any regard for their varying tastes and intellectual capacities, there to be subjected to an injurious kind of "high-pressure" instruction. He thought that, at the present day, students were taught so much, that they were enabled to learn but little. He also went on to speculate on the manner in which our "improved" system of educational feeding would be criticised, could such clear-headed and practical men as Abernethy, Brodie, and Cooper, come amongst us once more and examine it. He looked forward to the time when, personal feelings being put out of the question, the eleven medical schools of London should be merged into two large educational centres—one north, the other south, of the Thames. By the present arrangement, he felt sure that medical education and science were great sufferers.

The lecturer then referred to the abuse of medical charity and the growing evil of "special" hospitals, characterising these institutions as being too often the private speculation of one or two eager practitioners, who, under the auspices of a blinded philanthropist, drew away, by specious advertisement, certain classes of disease which should be found as teaching material in the wards of a general hospital. He advised as to the recreations of medical students, and ended with earnest advice that, as they were occupied in watching the glorious working of Nature in the various vital processes, they should not allow a handful of knowledge to blind their eyes to the existence of a Divinity that is shaping all her ends. Rather, having placed such an honest belief high in their creed, to follow the advice given long since by a learned physician:

> "Search while thou wilt, and let thy reason go
> To ransom truth, e'en to th' abyss below.
> Rally the scatter'd causes; and that line
> Which Nature twists, be able to untwine:
> It is thy Maker's will."

It was in such a spirit as this that those princes amongst philosophers worked, Newton, Boyle, and Faraday, men whose mighty intellects had flooded the world of science with the light of truth.

ST. THOMAS'S HOSPITAL.

THE Introductory Address was delivered by Mr. William Mac Cormac, Surgeon to the Hospital.

After some preliminary remarks, Mr. Mac Cormac dwelt on the fact that the student must not depend exclusively for instruction on others, but must also, and most patiently, learn to instruct himself. To do this efficiently, he should have received a well-grounded preliminary culture. The lecturer pointed out that without such previous training, a man was liable to be distanced in the race of life; that the student who found himself required to fill up the deficiencies of a defective education, as well as to master the intricate details and manifold bearings of a great profession, would prove too heavily weighted either to do justice to himself or the calling he has chosen. Mr. Mac Cormac combatted the idea that, in respect of the task before him, the termination of the student's career would see the end of his exertions. He showed that excellence was not thus to be compassed, but must be aimed at, struggled for, without end. He pointed out that effort itself conferred a sure reward, a disciplined intelligence, and a well-directed will. He adverted to the relations of the teacher with the taught, the genial bearing of the one influencing the apt intelligence of the other; that there was between them a community of purpose which, rightly exercised, would lead to the best results, and that the student had no better friend or confidant than his teacher.

The long career of the ancient foundation of St. Thomas's afforded Mr. Mac Cormac the opportunity of giving some interesting details of the position of surgery and surgeons in bygone days; there was specialism, and of a very bad form, then as now. He pointed to some of the extravagances that were then committed, and the absurd length to which the belief in certain remedies was carried; quoting the somewhat amusing instance of a physician who, having refused to be bled in his extremity, was anathematised with the depletion which, it was hoped, he might have to undergo in a different world. The lecturer forcibly dwelt, however, on the debt of gratitude we owed to the worthies of the past, and to the immense difficulties which they not only encountered but overcame, and urged us

> "Ever to be mindful of the Faithful Dead."

Mr. Mac Cormac was justly appreciative of the enormous contributions made to modern science on the part of Continental practitioners, and dwelt upon the necessity of an acquaintance with the languages in which those labours were recorded. "There are", he said, "workers everywhere; but how are we to benefit by their work unless we understand their language? We may, indeed, avail ourselves of translations, but these at best are but diluted transcripts, bereft of all the life and verve of the original, and mostly come too late to prove of much advantage. We are, in fact, somewhat prone to wrap ourselves up in our insularity, if I may adopt the expression. Insularity may be an admirable thing geographically speaking, but in science it is too often fatal." The long list of names—too long to enumerate—of German, French, American, and English surgeons, to whom surgery and the world were indebted, was securely registered in the record of their fame.

The great efforts which had been made to mitigate the horrors of modern warfare were spoken of by Mr. Mac Cormac; and he enlarged on those efforts as one who had witnessed something of the evils they were intended to assuage. He showed how much our times were in advance of the past, but he also showed how even the immense resources of modern military surgery found themselves unequal to cope with the horrors of such modern battle-fields as those of Mars-la-Tour and Gravelotte, where 42,000 men fell dead or wounded on the German side alone.

In conclusion, Mr. Mac Cormac urged the student to cultivate, at once as a solace and recreation, some pursuit not immediately bearing upon his profession. He pointed out that of many within reach none was perhaps better deserving attention than the cultivation of general literature, which, as Sir John Herschel had said, placed its possessor in contact with the best society of every period of history, made him a denizen of all nations, a contemporary of all ages.

ST. GEORGE'S HOSPITAL.

THE Introductory Address was delivered by Dr. W. HOWSHIP DICKINSON, Physician to the Hospital.

The lecture opened with an allusion to St. George, contrasting his ancient calling as a soldier with his present position as patron of a hospital; wherein he wages no war but with disease; his enemy, that crowned shadow whom mortals fear; the frontier in dispute, that of the dark monarchy whence no ambassador returns.

Pausing for an instant on the importance of medicine in reference to the amount of preventable disease, the unnecessary deaths in England alone being equal, in one generation, to the population of London, or in one week to as many as were put to death in France in the reign of Terror, the lecturer said—"*Sanitas sanitatum omnia sanitas*" may well be taken, in default of a better, as the motto of a political party; and I think it will be well for the State, and but duly regardful of a waste of life which is only to be paralleled, and that but for a short time, by war on the largest scale and in the most sanguinary shape, when the profession to which we belong is represented in the councils of the nation as weightily as can be ensured by official place and conferred dignity."

Proceeding to the present state of medicine and its relations to the allied sciences, the antiquity of medicine was contrasted with the modern origin of the sciences with which its advance is connected. Old traditions and new knowledge, each with its claims to consideration, medicine in one view rich with the spoils of time, in the other encumbered with some of its dust, ancient and mediæval medicine, were touched upon; and the mediæval physician was sketched as a visionary, with the astronomical globe ready to his hand, and his portrait bordered by the signs of the zodiac; some of whose theories, the doctrine of signatures and the humoral pathology, still influence practice; the latter especially in the absurdities of counterirritation, some of which were described as more worthy of the genius of red Indians than of the benevolent intent of one Christian to another.

Turning now to later modes of thought, the great advances of chemistry during the last hundred years were referred to, with the medical improvements consequent thereupon, culminating in anæsthesia by inhalation. Pathology was similarly dealt with, together with the recent origin of the achromatic microscope and the new views thence derived as to the nature of disease; pathology, like the age, becoming materialist, functional or unsubstantial diseases flitting before the microscope like ghosts at sunrise.

The lowest forms of organic life were alluded to in reference to the large influences, strangely disproportioned to their minuteness, which, as causes of disease, they exert upon the fortunes of humanity. The lecturer declined to enter upon the subject of spontaneous generation, but professed himself willing, if necessary, to adopt the view of the Roman commander, with regard to the animals of the Nile—"Your serpent of Egypt now is bred of your mud by the operation of your sun, so is your crocodile."

The sketch of modern advance was completed by allusion to the instruments dealing with light and sound, which have advanced the art of diagnosis.

Thus, tracing the recent progress in medicine, directly or indirectly, to knowledge extraneous to itself;—seeing for how long, in the absence of the sciences, it remained stagnant, or with only fitful advance; how fanciful theories led to erroneous practice, which observation alone was inadequate to correct; and how, sharing in the development of science, it had made greater progress during the last hundred years than since the epoch of Galen, the physician of the early Roman empire;—to natural science was awarded the first place among the agents of medical progress. But it was not to be forgotten that science, however advancing, was yet necessarily imperfect, it might mislead as well as lead aright, and prove on occasion not a guiding star but an *ignis fatuus*; hence suggestions thence derived must be scrutinised in their application with suspicious care, ever adjusting, correcting, and, when necessary, renouncing the indications of principle according to the teaching of observed results. Giving due place to scientific or speculative thought on the one hand, and to experience on the other; the first was the motive power, the second the controlling influence; the first the steed, the second the bridle; with only the one, we should be sure to go astray; with only the other, we should for ever stand still, or at best advance in a very halting and footsore style.

Theory was insisted upon as an idea of purpose inseparable from human action; and *practical men* who affect to be superior to theory were stigmatised as no less theoretical than their neighbours, though influenced not by the rational principles of ripening knowledge, but by the exploded fallacies of the past. "A practical man", according to the great leader, whom, as a conservative, practical men should respect, "is a man who practises the errors of his predecessors".

No therapeutical suggestion should be discarded as too chemical; no pathological inquiry, however minute, as unpractical; no appliance in aid of diagnosis as newfangled or superfine; observation should be trusted, tradition distrusted. Students were urged to study the nature and course of disease, so as to be able to interfere with it when necessary and possible, and to be content to leave it alone when, as often happens, the disease of itself tends to health, or in other instances is outside the scope of our researches.

Let us, said the lecturer in conclusion, be no mere distributors of salves and potions, for everything its remedy, and half the remedies delusions, but, while we practise the art of medicine, let us study the science of disease, and accept promise of unbroken progress and increasing utility in association with that knowledge of universal nature, ever widening and deepening in all her modes and results, which is the glory of the age and the hope of the future.

MIDDLESEX HOSPITAL.

THE Introductory Address was delivered by Mr. ANDREW CLARK, Assistant-Surgeon to the Hospital.

After a few introductory remarks, the lecturer said he should address himself principally to those among his audience who were for the first time assembled in a medical school, and begged the senior students to consider such parts as were applicable addressed also to them. Whatever branch they took up, they would have a life of hard work; and, in speaking of the Army and Navy, he expressed a hope that the Government would soon look into the working of the medical departments of those services, lest an idea should gain ground in medical schools that they were not sufficiently good openings for young men, and their efficiency be at stake. He next alluded to the importance of the study of Preventive Medicine and Public Health, even to those who did not make that a speciality; and then pointed out how much remained for the scientific worker, especially in the domain of therapeutics, where we were still much in the dark; and urged the students to hard work, telling them that the higher public offices were open to them, as well as those in their own hospital and school. He urged them to bring to the exercise of their work charity and true love for their fellow-men, and laid particular stress on this, because it seemed to him that, although the profession exercised charity towards the world, there was a great want of charitable feeling among themselves, it being too common a thing to aggrandise oneself at another's expense. He spoke of the necessity of practical work, and pointed out the opportunities the Middlesex Hospital presented for practical study, but said at the same time that theory and science must not be forgotten. He considered, he said, that students had two great aims before them—one to obtain a legal qualification, and the other to acquire a thorough knowledge of medicine; and regretted that sometimes the two did not go together, as they certainly ought. In speaking of qualifications, he said so much depended on the future intentions of each individual, that he could not advise them as to the examinations for which they should present themselves, but hoped they would all go beyond the M.R.C.S. and L.S.A. In alluding more particularly to the subjects of study, he said emphatically that the only place to learn anatomy was the dissecting-room, where at least three hours a day should be spent; and those who had not parts of their own should employ their time by assisting others, there being no better way of learning than by teaching. All should work together, having one great prize to look forward to—viz., the acquirement of knowledge. He went on to say that three winter and two summer sessions—the time required by the licensing boards—were little enough for hospital work; and he begged the students to begin at once, and not wait until they had passed eighteen months of their curriculum, as advised by some. They could not have too much clinical work. At the same time, if they could afford a year, before becoming registered students, for preliminary scientific studies, so much the better. He advised men to take offices early in the hospital—say at the end of six months; and said that, if they only kept their eyes open, at any rate in the surgical wards, they would not fail to benefit by attendance there. He spoke of the duties of hospital officers, and remarked that students must not suppose patients were admitted for their instruction; but they were allowed to make use of them for that purpose where no injury was likely to ensue. In alluding to the subject of cramming, now-a-days very much in vogue, but not at all necessary for the ordinary medical examinations, he said the duties of the college tutor were not those of a grinder, as some appeared to suppose, but to help students, and especially junior students, out of difficulties, and advise them as to their studies. He recommended them never to be afraid to ask questions. He next pointed out the advantages to be derived from the class-examinations held every six weeks, which were instituted not so much to encourage the spirit of emulation, as to give facility in writing and speaking. Another and last method of learning he would mention was by conference; and they had opportunities of this by attending the meetings of the Hospital Medical Society. This was the oldest society of the kind in London; and its continued prosperity depended on the students, who, he hoped, would continue to take the same interest in it they had hitherto done, for their own and their successors' sakes. In speaking of recreation, he told his hearers it was as necessary as work, especially to residents at the hospital. He thought sports and pastimes were now competing too successfully with studies in our schools and colleges, and wished to impress upon students of medicine, whose engrossing and never-ending study should prevent too great indulgence in them, the necessity of making amusement secondary to work. The lecturer then alluded to the loss of Dr. John Murray, whose bust had recently been placed in the museum; and spoke of the Murray Scholarship founded in the University of Aberdeen, which was open to students of the Middlesex Hospital under certain conditions; and, in conclusion, said that students should be encouraged to persevere when they thought of the great discoveries of Harvey, Jenner, and Sir Charles Bell, who for twenty-two years was surgeon to the Middlesex Hospital; and that they had similar opportunities. Let us call to mind Longfellow's words:

> "Lives of great men all remind us
> We can make our lives sublime;
> And, departing, leave behind us
> Footprints on the sands of time.
> Still achieving, still pursuing,
> Learn to labour and to wait."

UNIVERSITY COLLEGE.

THE Introductory Lecture was delivered by Dr. F. T. ROBERTS, Assistant-Physician to the Hospital.

After a few prefatory remarks, the lecturer drew attention to the remarkable progress which had taken place in the medical profession as a science and an art. Instead of considering this subject at any length, however, he thought it would be of more service to those for whom his remarks were intended if he were to discuss certain questions bearing upon the position of the profession, its internal organisation and external relations, and upon medical education and examinations. Perhaps, it did not matter much whether they, as students, were up in all the latest theories, or were acquainted with the most recent researches; but it made all the difference in the world whether they were turned out, at the end of their career, at all competent to practise their profession, and whether they had correct notions as to the position of their calling, its relation to great questions with which it was concerned, and their responsibilities and duties in connection therewith. His conviction was that it did a great deal of mischief to allow those who intended to enter the profession to lie under sentimental notions as to its nature and position. Eventually, and in the abstract, the "doctor's" calling was everything that ever had been, or could be, said in its praise; but, at the same time, when realised in daily life, with its many difficulties and annoyances, with its dull and wearying daily routine, it might come to be regarded as not much, if at all, above the common level; what was worse, the conviction might be forced upon them that their calling was not quite so honourable as they were led to believe, while they could not avoid noticing that its external relations were extremely unsatisfactory in many points of view. Things were certainly better than formerly, and there were signs of still greater improvement, but there was a vast deal still yet to be done in the way of reform. The general social status of the medical profession was not nearly what it might be, and even its most illustrious members could only rise to a comparatively inferior position of eminence.

In connection with the army and navy medical department, there were real grievances of a most serious character. During the last year, this country had been engaged in a war, emphatically called a "doctor's

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war", and, while honours had been deservedly showered down upon others, the doctors were left pretty well out in the cold. The Poor-law service was in many parts in a decidedly degraded position. Politically, they were simply nowhere, outstripped in the race by almost every other class of individuals, headed by the publican and so-called "working man". Their interests, as a profession, were not considered as deserving of much notice; even in such questions as those concerning sanitary matters, the opinions of men, who, from their official position, were expected to advise on these subjects, had been quietly ignored, or sometimes insolently repudiated.

The lecturer then went on to remark that it would do no harm if a considerable addition of the medical element were infused into the constitution of both Houses of Parliament, and pointed out the influence which the medical profession ought to have in connection with all questions bearing upon the general health and well-being.

In considering the causes to which the unsatisfactory state of the profession might be attributed, Dr. Roberts observed that—first, its members were not a numerous or powerful body, and, therefore, Governments, etc., cared little about them; secondly, the public did not treat them fairly or kindly; they would take every advantage of them; numbers of persons obtained advice at the hospitals who could well afford to pay, while, on the other hand, they would readily give large sums to some pretentious quack. With all the late increase in charitable contributions towards the hospitals, and the generosity of anonymous donors, who sadly, however, needed direction as to what hospitals should be the objects of their generosity, there was no corresponding development of charity and consideration towards the medical staff of those institutions. He did not mean that they were not paid—a matter, however, not unworthy of notice—but they were not by any means always properly treated in other respects. People held very wrong ideas about their position, which were even encouraged by some gentlemen in their own profession.

The lecturer then spoke about the difficulties and trials which physicians and surgeons to public institutions had to undergo, and in connection therewith alluded to the sad events of the past year, paying a tribute of respect to the memory of Murray, Phillips, Dickson, Fuller, Allen, Webb, Harris, Bird, Anstie, etc.

Dr. Roberts then drew attention, thirdly, to the obstacles to true progress which existed within the profession itself. He urged the great importance of cordial co-operation and firm union in all their associations, from the most extensive to the most limited, as well of individual efforts and of highest action possible on the part of every member of the medical profession, as to the nature and aims of their vocation.

Turning to consider medical education and examinations, Dr. Roberts compared the past with the present state of things; and, in speaking of former lecturers, paid a tribute to the memory of the late Professor Grant, and also spoke in feeling terms of Dr. Sharpey, who had recently resigned the chair of Physiology. Discussing the present aspect of affairs, he alluded in strong terms to the very inefficient examinations still existing, and urged the necessity for a satisfactory curriculum of study and satisfactory examinations for every part of the kingdom.

He then pointed out the changes and advances which had been recently made with regard to these matters, treating them under the heads of alterations affecting time, subjects, and the methods of examination and instruction. Referring to examinations, he entered into a consideration of the causes of the numerous rejections of candidates, and dwelt at some length upon the question as to how far examiners, teachers, and students themselves were respectively responsible for the present unsatisfactory condition of things, as well as their proper relations to each other, and finally pleaded for their combination for the one great purpose of making the profession in reality the high and noble calling which it was in essence. For this end there were wanted examiners fully competent for their duties, and determined to perform them conscientiously and impartially, but yet with due courtesy and kindness; teachers not only possessing the ability, but eager to devote their best energies to the training of those committed to their charge, and students fully alive to their obligations and responsibilities.

After some words of exhortation, direction, and encouragement to the students present, Dr. Roberts concluded his address as follows.

"With all my heart, gentlemen, do I wish everyone of you success in the truest sense of the word. But, in order to win success, you ought to deserve it. We sometimes see a man who has spent his time in idleness and frivolity, in after-life, aided by favouring circumstances, get ahead of those who have been diligent and hard-working; and I confess that to me the sight is not an agreeable one. My sincere desire and hope is that those who have earned success here may achieve it hereafter, though there is no reason whatever why you should not everyone deserve it. And remember that a successful life need not be a brilliant or a long one. There are many obscure village practitioners, who in reality are far more successful than some who seem to float on the highest wave of worldly prosperity; and there are tablets in this College, erected to the memory of those, who, having scarcely emerged from their student-life, accomplished more in their brief career, and were more truly successful, than most men who reach their three score years and ten. To such men would I point you as examples. Follow in their footsteps. Make your mark for good in the sphere in which your lot is cast, whether it be large or small. Let your life be, not a dark blot or a hideous caricature, but a finished picture, grand and beautiful and attractive to look upon, which will be the admiration of future ages. You may even now, if you choose, be sketching the outline of that picture; and hereafter, if your lives be spared, you can fill it in and make it perfect and complete, by devoting yourselves earnestly and faithfully to your duties, whatever they may be; and by taking your part in the conflict with disease and death, in the alleviation of pain, distress, and misery, and in the endeavour to sweep away many of the direst ills which now afflict humanity."

CHARING-CROSS HOSPITAL.

THE Introductory Address was delivered by Dr. DOUGLAS POWELL, Assistant-Physician to the Hospital.

After some preliminary remarks, Dr. Powell observed that it was, perhaps, only on hearing the usual but none the less sincere congratulations upon the nobleness of the profession they had chosen, which were always offered to them upon these occasions, that students first questioned themselves, curiously, as to how they came to choose the medical profession; and the question, What is the use of it? might to them at first appear a little staggering. For, merely to say that the profession existed; that, of its superabundance, civilisation had yielded a fund for the lopping of overgrowths, the repair of degeneration, the preservation of buds and cuttings; and that thus doctors, like cooks and confectioners, were but the results and servants of luxury—was not a sufficiently encouraging answer to urge them onward. Nor, although a contingent pleasure, was the occasional sense of gratification that the immediate object of their lives was the relief of pain and misery, sufficient to justify to them their profession as a great one. It was too fitful and fleeting to sustain them to any high purpose, and was rather an element of over-anxiety and weakness if it held too high a place in the mind of the physician. On looking higher still for a worthier motive, they were met by the protest of some who would thrust them back again amongst the cooks and confectioners—that, by ameliorating the conditions of life, they preserved the feebler members of the human race at the expense of the strong, levelling down the whole human constitution by diluting the life of the strong with the lesser vitality of the feeble. He need not pause there gravely to contend against the futile notion that it would be possible for us to interfere with such laws of nature as determine the survival of the strongest. Such laws could not, however, be construed to mean that life was the exclusive right of those who had most of it. The laws of Nature, "bound fast in fate", were not to be changed by human will; but it seemed obvious enough that by improving the general conditions of life we acted with those laws, and upheld, if he might so say, rather than let down, the vitality of the race; for every evil condition that would extinguish a weak life, would damage, if not disable, a strong one. Proceeding to regard the matter from another aspect, Dr. Powell contended that in the intellect or mind of man, we found a new force having, within wide limits, the mastery over other forces, and, unlike them, capable of continued growth from generation to generation, and that the true aim of civilisation—a great scheme of Nature in which we but took our part—was towards the attainment of a higher development of the intellectual and moral elements of our being, to the crowning with God-like wisdom and grace that human form which, in muscle, and bone, and nerve, was as perfect centuries ago as now. He doubted whether in this direction any man had ever lived whose life had not contributed directly or reflexly to human advancement, the weak being the hostages of the strong, to bind them to industry, to lessen violence and strife amongst them, and to humanise them. The ascertainment and maintenance, then, of the laws of life and health, mental and physical, under all the conditions of human existence, was a worthy and sufficient *raison d'être* for ours as a profession, being, in other words, the maintenance of the best bodily or material conditions for continued intellectual growth.

In illustrating, in this point of view, the educational work before them, Dr. Powell quoted a recent article in the *Times* on the death of the late Dr. Anstie, saying that "science has yet to make itself heard and believed by the mass of even the educated public", and pointed out that it was only by the individual efforts of medical men, each amongst his own *clientèle*, teaching the laws of health, and the danger of neglecting them, that public opinion would ultimately be set right on such matters. He observed that a course of lectures on Public Health, commenced last session at Charing Cross Hospital, would be continued each year, the better to equip them for this good fight. The physician had sometimes to contend, however, against other agents, more subtle than material poisons, since they lurked in each human breast, at which he would but briefly hint now. Might we not sometimes warn in time "that way madness lies"? The passions and emotions were not mere storms in some independent ether, but were physiological, amenable to education, correlative, perhaps even interchangable. Their want of early control might lead to crime in one generation, or to mental feebleness, or some form of insanity, in another. The hereditary descent of peculiarities of character was an interesting subject for further study with a view to improved education.

Dr. Powell next urged upon his hearers the importance of early establishing for themselves a good tradition to which they would find it comparatively easy to remain loyal. He thought astuteness and decision of mind, the habit of thinking out everything to a conclusion, so attractive and commanding in the man, was particularly valuable in the professional man. He dwelt on the importance of note-taking and personal examination into everything as the best means of gaining early real experience, the safest antidote in practice to that indecision of mind against which he had already spoken. He warned senior students particularly against neglecting any branch of medical study; a man could only legitimately become a specialist after having thoroughly acquainted himself with the principles of medicine and surgery as exemplified in their every branch and department. Most of them would practise in every branch. Mentioning especially the diseases of women and children as being branches of study often somewhat neglected by students, he observed that the reflex phenomena of disease which make up a certain portion of the symptoms of all diseases, were often most clearly and simply presented to us for study in these departments, and that a good knowledge of children's diseases was the very alphabet of medicine, teaching us the resources of Nature, and how best to aid them by rest, diet, nursing, and medicine.

Dr. Powell concluded his address by commending the poor to the care of those about to pass on into practice. Amongst the poor the chief work of their profession was to be done, their chief experience gained. They had to try to raise them from their present state of sanitary discomfort and degradation, and to aid and protect them by their watchfulness and advocacy in obtaining and maintaining for them due sanitary reforms. They might greatly help them by teaching them to help themselves, and he hoped all having the opportunity would work hard in this direction, and do their best, each in his own district, to encourage some provident form of medical relief for the sick poor.

LONDON HOSPITAL.

THE introductory lecture was delivered by Dr. S. FENWICK, Assistant-Physician to the Hospital.

Dr. Fenwick commenced his lecture by stating why he thought introductory lectures should still be continued. Many of those now commencing their studies were not only ignorant of all the sciences allied to medicine, but were unpractised even in the methods by which they could be most successfully pursued. Up to the present time, their education had been restricted to languages and other branches of knowledge which only required a quick and retentive memory for their mastery, or they had been taught mathematics in which truths are deduced from facts intuitively recognised by the mind. In medical science, on the contrary, the student had to make himself acquainted with the facts from which conclusions have been derived. He has to judge how far many of the influences he is taught are justified by facts, and he has often to decide for himself between the claims of opposing theories.

All education, Dr. Fenwick remarked, had for its object either to store the mind with knowledge, or so to train and improve the mental faculties that the individual may more readily acquire knowledge for himself. The latter is *self* education. And it was of this self education, or rather of the best way of conducting it in respect to medical science, that he intended to speak on the present occasion. Self education consisted in the constant employment of certain mental powers so that they might be not only improved by exercise, but that their use might become gradually strengthened in habit.

The first habit he would advise them to cultivate was that of minute and careful observation. They would probably ask, What is easier than to observe correctly; and why trouble themselves to make it a habit? History pointed to the fact that men in all ages had been apt to neglect observation, and had allowed the plain evidence of their senses to be overruled by preconceived ideas. In illustration of this he cited the simplest operation in surgery, that of dressing a wound. For a lengthened period surgeons believed that wounds would not heal of themselves, but that every injury to the skin must go through four distinct processes before it could unite. They, therefore, encouraged suppuration and prevented adhesion by the use of plugs and tents. Many would no doubt think that it would be impossible for such errors to be now committed. Of course, in the present day, this could not occur to the same extent; but he much feared that many a widespread belief rested more on authority than on observation.

The use of observation is to furnish facts from which conclusions may be drawn; but they must remember that, though the observations might be correct, the inferences might be erroneous. Hence the necessity for testing observation by experiment. In this method of investigation they were able to vary the conditions under which any particular fact could be observed, and by frequently altering the conditions they could often eliminate from the problem all sources of error and thus insure the accuracy of their conclusions. The history of medicine abounded with instances where unaided observation seemed to point to conclusions which subsequent experiment proved to be erroneous. A single example would be sufficient to illustrate this. In 1786, John Hunter accidentally discovered that when death took place whilst the digestion of food was going on, the coats of the stomach was often dissolved by the fluid the organ had secreted during life. This discovery, although at first it excited great interest, was soon forgotten, more especially abroad. In the beginning of the present century, great attention was bestowed in France on morbid anatomy, and pathologists were not a little surprised to find how frequently after death the stomach presented the appearance of softening, in cases where, during life, no symptoms of disease of the stomach had been observed; and they were, therefore, led to infer that inflammatory softening of this organ was a frequent, insidious, and most fatal malady. Dr. Carswell, however, determined by experiment that the so-called softening of the stomach was a mere *post mortem* effect, and not the consequence of disease. In this case, there was no fault as regarded the facts, but the inferences were incorrect.

He had been particular in thus drawing attention to the use of experiments, because he believed it would in the future be one of the chief means of investigation. Let them look back at the history of medical science during the present century. During the first thirty years, there sprang up a school of earnest and enthusiastic workers in morbid anatomy. In every disease, the condition of each organ was carefully scrutinised, and nothing could exceed the clearness and precision with which the coarser morbid changes were described. As a result of this knowledge, methods of physical investigation were invented by which these conditions could be accurately distinguished during the life of the patient; and to this school we owed the discovery of auscultation and the various other means of physical diagnosis. Within the second third of the century, improvements in the microscope placed in the hands of physicians a new instrument of research, which they were not slow to employ. Investigation was turned into a new channel, and the schools of North Germany replaced in fame those of Paris and Vienna. The discoveries then made seemed to have placed medicine on a new basis, and vast were the expectations formed as to the future progress of medical science. Men attempted to base pathology on cells, fibres, and granules, and hoped to distinguish diseases by the microscopic character of their products. But we were no longer disputing as to the shapes and sizes of cells, or seeking for an explanation of cancer and tubercle in the form of cells or the sizes of their nuclei. Just as in former times investigations in physiology followed quickly upon discoveries in anatomy, so now the functional diseases of organs were claiming the attention of those who had nearly completed their inquiries into structural alterations.

A third habit of the greatest importance, which he recommended the students especially to cultivate, was that of recording their observations at the time they were made. He had often been surprised how little medical students were in the habit of noting down their own observations. In the lecture-room they might be seen copying the remarks and opinions of their teachers, but how few seemed to be aware of the importance of recording what they themselves witnessed in the wards or in the *post mortem* theatre. And yet a single fact, carefully and honestly noted down, might long after prove of incalculable value, although at the time it appeared of no great importance. This might be well illustrated by reference to the history of the discovery of anæsthetics.

He had been induced to lay before them these remarks, because he felt it was especially necessary in the present day to impress upon their minds the necessity of self education. Numbers were entering the profession who seemed to think that books and lectures could supply all the knowledge they need possess, and that to pass an examination with credit was the only aim of their student life. Books could never supply what could only be obtained by observation and experiment, and we could never by any method of examination test the acuteness of perception and the soundness of judgment that ought to characterise the physician, or the coolness, courage, and readiness of resource that are requisite for a surgeon. These could only be gained by patient observation and long experience. It was in affording them a field for gaining such qualities that the London Hospital was specially valuable. Already one of the largest, it would when the new wing was completed, be the greatest hospital in this country. The enormous number of accidents annually treated within its walls had long rendered it famous as a surgical school, whilst the nature of the population by which it was surrounded, the immense extent of the out-patient practice, and the number of special departments it contained, would give them opportunities for the study of medicine which could nowhere be surpassed.

WESTMINSTER HOSPITAL.

THE Introductory Lecture was delivered by Dr. POTTER, Obstetric Physician to the Hospital and Lecturer on Midwifery.

After a few words of welcome to the students, and alluding in feeling terms to the sad loss sustained by the School in the deaths of Dr. Frederic Bird and Dr. Anstie, both cut off in the midst of active work and in the full vigour of professional life, the lecturer went on to speak of the profession of medicine, and to congratulate those who had embraced it on their choice of so noble a pursuit. But, he told them, they must be certain of the truth of their choice, as they would find it a hard-working profession, success difficult of attainment, state rewards but few, and the chances of making a fortune infinitesimal. He continued: "To be honoured professionally, however, is open to you all, and it is rare that honest work remains unrewarded in this way. It is a source of pride to us that, of the four seats at the Censors' Board of the College of Physicians, two are at present held by the senior members of our staff, Dr. Basham and Dr. Fincham." After giving definitions of a doctor from two authors, he said: "I give you these in preference to others, as you will probably for the most part occupy the honourable position of general practitioners; and remember that some of the best and most useful professional work has been done by them. To give one instance only, the immortal discoverer of vaccination laboured as a general practitioner in the country. In the present day also, a strong feeling is being manifested by many against the hard-and-fast line drawn between the different departments of practice; and, even should you in the future desire to become specialists, you cannot successfully practise as such without being good general practitioners." After reminding his hearers that they were to be medical students, he spoke with regret at the abolition of the old-fashioned apprenticeship, believing that a year or so occupied in this way would be of great advantage.

"The seeing a great deal of practice, and especially the minor and petty cases which make up to a large extent the bulk of everyday work; the minor diseases of children, scarcely ever seen in a general hospital; the handling of drugs and the art of prescribing, never successfully learnt in any other way; the traditions and etiquette of the profession; and last, not least, the opportunity it affords the young man to ascertain whether he really likes or dislikes the profession of his choice, as he sees, in addition to the purely medical point of view, the kind of daily life that he must expect if he go on with it—all these were advantages of the apprenticeship. A good deal of elementary knowledge of botany, chemistry, and some acquaintance with the bones of the skeleton, can also be gained during this year."

Addressing specially the new students, he insisted strongly on the necessity for order in their medical studies. At first, they should devote themselves mainly to anatomy and the dissecting-room, afterwards taking up physiology, and especially working well in the new Physiological Laboratory. Supposing that the student's diligence had been rewarded by passing his first examination, his mind was now set free for the more practical work to follow. Speaking on the subject of midwifery, Dr. Potter dwelt on its importance as the key-stone to practice, and laid great stress on the necessity of a sound practical knowledge of the subject, and the attendance on as many cases of labours as possible. He spoke also of the impossibility of attempting to teach the diseases of women and children as part of a three months' course of midwifery.

The importance of taking notes in the class-rooms and also in the wards was strongly insisted upon. "These golden opportunities may never again occur to you in your lives; this aggregation of cases in the wards under skilled supervision you will only be able to avail yourselves of for a limited time. Even if you never look at your case-books again, which I am far from thinking will be the case, these short histories of disease are better filed in your mind from having been committed to writing at the time. At this time also, attend the special departments now carefully formed and arranged within this building, so that your time need not be wasted in running over the town to the so-called special institutions." The advantages of the Westminster Hospital as, *par excellence*, a small school were then dwelt upon. In a small school where there was no crowding every one had his chance; he was brought more closely into contact with his teachers; in the wards, he saw all the cases without having to fight for the privilege, and, in the latter years of his student life, was able to hold the various appointments and have the direct charge of patients. Those finishing their curriculum or about to enter into practice were given advice as to their duties and responsibilities, not to practise their profession in a mere routine way, as drug-distributors or as a tradesman selling his goods, but to practise it intellectually. Even in a remote country district, good work might be done, and the late Dr. Uvedale West was instanced as having brought out a most admirable monograph in the midst of a large and struggling poor practice. "As to your duties, the first is to cure your patients, not to devote yourselves too scientifically, as the German physician who, going round his wards, told his students in what condition the various organs would be found after death of the patients, and forgot to prescribe for them. For this cure, it is of paramount importance to ascertain what is the matter with your patient, uncertain diagnosis leading to very uncertain treatment; but, while making use of the instruments of precision which we in the present day can bring to our aid for this purpose, do not neglect the old-fashioned art of observation, remembering always that medicine is, and must be to some extent, an empirical art, and must not be despised as such, the introduction of quinine and other drugs into practice, and the important discovery of vaccination, being the result of observation alone. Bear constantly in mind the potence and impotence of our art; watch nature closely, and give her her way when she acts well. It is far easier, and requires less experience, to do something actively than to watch patiently. But, if you cannot cure your patients, at least do no mischief to them or be guilty of that quackery which says, 'I can cure', when we know the disease to be an incurable one. While acting conscientiously in this way, do not neglect moral treatment; for, in the many cases grouped under the name hysteria, a judicious medical and moral treatment will often largely benefit or cure, whereas the reverse plan of telling the patient there is nothing the matter will only aggravate the disease. However, whether you can cure or not, cultivate a kindly and genial manner; even in the sad and unfortunate cases where we can do little but alleviate, a gentle and sympathetic manner will often cheer the poor sufferer."

The advantages of preventive medicine were then insisted on; and the duty of warning people against baneful habits, as drinking, opium-eating, immorality, etc., was impressed. To the busy practitioner, the necessity of taking rest, at least an annual holiday, was strongly advised. "The number of deaths in our profession during the last year from overwork ought to be a warning to us all." The students were exhorted to avoid, as far as possible, medical squabbles, for these only brought our profession into disrepute. Collisions and differences of opinion must occur in practice from time to time, but it is always better in such cases to suffer than to injure. After quoting the opinion of the good and great Sydenham as to the responsibility of the medical practitioner, the lecturer, after wishing success to them all, concluded in the words of our great humourist:

> "Come wealth or want, come good or ill,
> Let young and old accept their part,
> And bow before the awful will,
> And bear it with an honest heart.
> Who misses or who wins the prize,
> Go, lose or conquer as you can;
> But if you fail, or if you rise,
> Be each, pray God, a gentleman."

SHEFFIELD MEDICAL SCHOOL.

THE Introductory Address was delivered by Dr. J. C. HALL, Lecturer on Medicine, and Senior Physician to the Sheffield Public Hospital. He selected, as the groundwork of his address, the great importance of a general education to fit students to grasp that technical education necessary to obtain their diplomas. Much, he remarked, had been said of late, of the education of the masses; and, if the students present intended to maintain their position—if they did not care to be pushed into the middle of next week, by those at present socially in a lower position, they must be up and doing all in their power to obtain that knowledge absolutely necessary to enable them to succeed in the profession on which they had that day entered; that knowledge which the great Lord Bacon had truly described as power—knowledge of the most valuable kind, for it placed a microscope in the hands of the minute, a telescope in the hands of the distant, observer, to help their researches; whilst, with an educated eye, the mind surveys the beauties of the universe; those evidences of design which have so clearly left traces of the Great Designer, in the waves of the ocean, the trees of the forest, the flowers of the field, the old thorns with their young May-blossoms, we feel the force of the remark of Plato—"the world is God's epistle to mankind". Dr. Hall next proceeded to urge that an earnest purpose finds means to make time for the attainment of knowledge, and showed how one hour a day set apart for any purpose—for example, the mastering of French or German—was fruitful of improvement. He asked

> "What is man,
> If the chief good and market of his time
> Be but to sleep and feed?—A beast, no more.
> Sure he who made us with such large discourse,
> Looking before, and after, gave us not
> That capability and God-like reason
> To fust in us, unused."

He urged on the students present to cultivate their intellectual powers; for the prayer, "give us this day our daily bread", applied to the mind as well as to the body. It was worth while, in the dawn of "life's young dream", to strive hard for the possession of knowledge; to pass sleepless nights, to give up for the attainment of it, laborious days, to spurn for it present pleasures. A life spent in the attainment of useful knowledge is a life of virtue, not of crime. With whose happiness does such an one interfere? In the pursuit of knowledge he injures no one; in the attainment of it, he does good to all. The cultivation of the mind gives, for ever, a companion no enemy can alienate—no despotism enslave. It is at home a friend, in other countries an introduction, in solitude a solace, in society an ornament. Without education, what is man? Next, the inductive philosophy of Lord Bacon, and what it had done for mankind, was put before his hearers at considerable length; the lecturer remarking, that its fruits were exhibited in the lengthening of life, in the mitigation of pain, in the increased productiveness of the earth, in lighting up night with the splendours of day; and, thanks to what we had been taught by this philosophy, through the electric telegraph, the dream of the poet had been more than realised; for now we can truly say that we have the power, quick as thought, to

> "Speed the soft intercourse from soul to soul,
> And waft a sigh from Indus to the Pole."

After continuing his subject at some length, Dr. Hall concluded by saying to the students present, "Do not look upon your calling as a money-getting one. If pounds, shillings, and pence be your object, abandon it at once. I advise you, in such a case, to take to steel-melting, or to buy a share in a good bitter beer brewery. Ours, as my late teacher, Sir B. C. Brodie, said, 'Ours, gentlemen, is a noble profession, but a very poor trade.' For my own part, I hesitate not to say, the happiest moments of my existence, 'the greenest spots in life's dull waste', have been those in which, by the exercise of our noble art, it has been my high privilege—blessed by the Great Father of the universe—to restore a husband to a wife, a wife to a husband, or a child to parents, who have long been sorrowing almost without hope. I know, as that great physician Dr. Williams pointed out years ago, that it has been too much the practice to sneer at the medical profession; to designate it as 'poor and degraded', and that, too, by the uneducated rich, who ought to have known better. Poor it is, slighted it has been, but I say, emphatically, degraded it never can be, so long as by giving sight to the blind, hearing to the deaf, making the lame to walk, and restoring reason to the miserable victims of insanity, it proves incontestibly that its foundations rest on true science, and that its one sole object, its one sole aim, is the good of our fellow-creatures."

ASSOCIATION INTELLIGENCE.

SHROPSHIRE ETHICAL BRANCH.

THE annual general meeting will be held at the Lion Hotel, Shrewsbury, on Monday, October 5th, at 1 P.M.; the President, W. A. DAVIES, Esq., in the Chair.

Subjects for Discussion.—The Revised Tariff of Medical Fees; The Proposed Tariff of Surgical Charges; the Suggested Preface thereto. Cases and communications by members.

Dinner will be served at 3 P.M., for the convenience of the country members. Tickets, exclusive of wine, 7s. 6d.

Members have the privilege of introducing friends, on transmitting their names to the President.

Chamber Concert Music by a select band of musicians, under the leadership of Mr. Appleby of Liverpool, will be provided, as usual.

Gentlemen intending to read papers, etc., will oblige by communicating their titles (for insertion in the "circular note" of invitation), before the 8th proximo, to

JUKES STYRAP, *Honorary Secretary and Treasurer.*

Shrewsbury, August 31st, 1874.

SOUTH MIDLAND BRANCH.

THE eighteenth autumnal meeting of this Branch will be held on Tuesday, October 6th, at 2 P.M.—the President, ROBERT DE'ATH, Esq., in the Chair—at Tickford Lodge, Newport Pagnell, the house of H. Hailey, Esq., who will kindly provide luncheon between 12.30 and 1.30 P.M.

Gentlemen intending to read papers, etc., are requested to furnish the titles before the 28th instant, to Dr. Bryan.

J. M. BRYAN, M.D., }
WM. MOXON, } *Hon. Secs.*

Northampton, September 13th, 1874.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE first meeting of the session 1874-75 will be held in the Council Room of the Midland Institute, on Thursday, October 8th, 1874; the Chair to be taken at 3.30 P.M. precisely.

T. H. BARTLEET, }
BALTHAZAR W. FOSTER, M.D. } *Honorary Secretaries.*

Birmingham, September 1874.

BATH AND BRISTOL BRANCH.

THE first ordinary meeting of the session will be held at the College Green Hotel, Bristol, on Thursday, October 22nd; FREDERICK MASON, Esq., President, in the Chair.

EDMUND C. BOARD, *Honorary Secretary.*

Clifton, October 1874.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING will be held at the White Hart Hotel, Reigate, on Thursday, October 22nd, at 4 P.M.; CONSTANTINE HOLMAN, M.D., in the Chair.

A testimonial will be presented to Dr. Lanchester, late Secretary to the District.

Papers will be read by Dr. P. H. Pye-Smith, on some cases of Abdominal Tumour; by Dr. C. Holman; by Dr. J. Walters, on a case of large Naso-Pharyngeal Polypus successfully removed, on a case of Poisoning by Arsenic, and on a case of Poisoning by Hydrocyanic Acid.

The Chairman kindly invites members and their friends to lunch at 1.30 P.M., at "The Barons", Reigate.

Dinner will be served at the White Hart Hotel, at 6 P.M. Tickets, including wine, 14s.

JOHN H. GALTON, M.D., *Honorary Secretary.*

Woodside, Anerley Road, S.E., September 30th, 1874.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEETING.

THE autumn meeting of the above District will be held at Chichester, on Tuesday, October 27th; Dr. TYACKE in the Chair.

Any gentleman desirous of reading a paper, or bringing forward cases, is requested to communicate forthwith with the Honorary Secretary.

WM. J. HARRIS, *Honorary Secretary.*

Worthing, September 28th, 1874.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 29th, at 5 o'clock.

The following question has been settled by the Council as the one on which each member should be asked to express his opinion at the meeting after dinner: "What is your opinion as to the best treatment of whooping-cough?"

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, September 29th, 1874.

MR. ROBERT SHACKLETON, borough accountant, has died at Batley from the effects of morphia administered to him by a druggist in mistake for some other medicine.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 24th, 1874.

Bell, John Duncombe, Antigua, West Indies
Gallimore, Thomas, Infirmary, Chester
Haslam, William Doidge, Redhill, Surrey
Southam, John Binns, St. George's Road, Bolton
Steward, Alfred, Newtonheath, Manchester
Towt, George Frederick Ewens, Crewkerne, Somerset

The following gentlemen also on the same day passed their primary professional examination.

Clegg, John Hague, St. Bartholomew's Hospital
Dutton, Edward George, Guy's Hospital
Scott, Alexander Thomas, Middlesex Hospital

At the Preliminary Examination in Arts, held at the Hall of the Society, on September 25th and 26th, 1874, 124 candidates presented themselves; of whom 34 were rejected, and the following 90 passed, and received certificates of proficiency in general education. In the First Class, in order of merit:

1. Z. Meunell. 2. F. J. Butler and Henry Pearce. 4. T. F. P. Adolphus, T. H. May, H. F. Stokes, and T. S. Tuke. 8. T. A. Appleton, James Harrison, M. G. C. Hoskins, P. Peacock, S. C. B. Robinson, A. Weakley, W. Whitworth, and F. W. Woodman. 16. W. H. S. Mackay and N. Rushworth. 18. W. J. Clarke, H. H. F. Eden, A. S. Mackrell, and T. P. Pemberton. 22. W. S. Battis, B. Gilchrist, and C. A. Herbert. 25. T. A. Evans, H. D. Mackay, J. W. Payne, and G. Stevenson.

In the Second Class, in alphabetical order:

John Allnutt, A. E. Benthall, R. C. Birch, Herbert Blott, C. A. Bloxsome, T. Bushby, C. Collett, G. W. Collins, H. L. Cortis, Arthur Cross, J. H. W. Davis, R. A. Davies, L. Dresser-Ernest, W. Edwards, A. G. S. Findlay, W. H. R. Forsbrook, B. H. J. Gardiner, Alfred Gibson. E. Godson. W. R. Gould, F. Graveley, Ernest Grey, W. C. Guthrie, M. H. Hale, W. H. Hall, F. A. Harris, U. A. Carpenter Harris, L. R. Hayland, P. H. Hogg, T. Hopps, H. J. R. Hosford, W. H. Iorns, E. M. Knapp, A. W. Knight, J. A. Langley, J. Lofthouse, J. S. McDonagh, Arthur Manners, A. Mantle, T. H. Morse, H. J. Palmer, A. B. Payne, G. L. Pardington, F. Parish, Ernest Rawson, G. A. Roper, A. E. Rowcroft, F. M. G. Smith, H. R. Spackman, J. W. A. Steel, Charles Edward Steele, J. McDougal Stewart, J. Sutcliffe, Edgar Taylor, C. Molesworth Tuke, George Rayleigh Vicars, Henry Wakley, Lawrence N. Walker, Wm. Sparrow Watson, Alfred G. Wells, Wm. Frederick West, and Miles Melbourne Williams.

MEDICAL VACANCIES.

The following vacancies are announced:—

ATKINSON-MORLEY CONVALESCENT HOSPITAL—Resident Medical Officer: £75 per annum, furnished rooms, and board. Applications, 7th instant, to Charles L. Todd, Secretary, St. George's Hospital.

BANGOR and BEAUMARIS UNION—Medical Officer and Public Vaccinator for the Anglesey No. 1 District: £85 per annum, and fees. Applications, 13th instant, to John Thomas, Clerk, Bangor.

BEDMINSTER UNION, Somersetshire—Medical Officer for No. 8 District: £40 per annum and fees, and £15 per annum as Medical Officer of Health. Applications, 5th instant, to Henry O'B. O'Donoghoe, Clerk, Long Ashton, Bristol.

BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications, 6th instant, to the Honorary Secretaries.

BIRKENHEAD BOROUGH HOSPITAL—Junior House-Surgeon: £60 per ann.

BRIDGNORTH UNION, Salop—Medical Officer for the Workhouse and No. 3 District: £97 per annum.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon: £80 per annum, board and lodging. Applications, 13th instant, to the Secretary.

DENTAL HOSPITAL OF LONDON, 40, Leicester Square, W.C.—Dental House-Surgeon. £40 per annum.

ETON UNION, Bucks—Medical Officer for the Iver District: £66 per annum.

FISHERTON HOUSE LUNATIC ASYLUM, Salisbury—Assistant Medical Officer: £100 per annum, board and lodging. Applications to Dr. Finch.

FORT AUGUSTUS, Inverness-shire and surrounding districts—£80 to £100 per annum from parochial appointments, and good private practice. Application to George Malcolm, Esq., Invergarry, by Fort Augustus.

GLASGOW MEDICAL MISSION—Superintendent: Not less than £250 per annum. Applications, 12th instant, to William Sloan, Secretary, 73, Gordon Street, Glasgow.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Two Clinical Assistants. Applications, 5th instant, to the Secretary.

HOSPITAL FOR WOMEN, Soho Square—Dispenser.

KENT—Public Analyst: 21s. per analysis for the first hundred; 10s. 6d. per analysis for the second hundred; 6s. per analysis beyond. Applications, 12th instant, to F. Russell, Clerk of the Peace, Maidstone.

LAMBETH, Parish of—Resident Medical Officer and Dispenser, Infirmary, Princes Road: £100 per annum, board, apartments, etc. Applications, 12th instant, to W. B. Wilmot, Clerk, Brook Street, Kennington Road.

LANCASTER GAOL—Surgeon. Applications, 31st instant, to the Clerk of the Peace, Preston.

LANCASTER INFIRMARY and DISPENSARY—House-Surgeon: £100 per annum, apartments, etc. Applications, 12th instant, to the President.

LEEK UNION, Staffordshire—Medical Officer for the Endon District: £20 per annum.

LINCOLN UNION—Medical Officer and Public Vaccinator for No. 6 District: £30 per annum, and fees. Applications, 6th instant, to J. W. Danby, Clerk.

LIVERPOOL INFIRMARY FOR CHILDREN—House-Surgeon: £80 per annum, with board.

NEWTON ABBOT UNION, Devon—Medical Officer and Public Vaccinator for No. 9 or Dawlish District: £53 per annum, and fees. Applications, 13th inst., to John Alsop, Clerk.

RATHDOWN UNION, co. Dublin—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Stillorgan Division of the Blackrock and Stillorgan Dispensary District: £110 per annum, and fees. Applications, 6th instant, to Henry A. M. Drought, Esq., Avoca Avenue, Blackrock.

ST. FAITH UNION, Norwich—Medical Officer for the St. Faith District and the Workhouse: £44 and £20 per annum respectively.

ST. GEORGE'S HOSPITAL—Visiting Apothecary. Applications, 14th October, to C. L. Todd, Secretary.

ST. PETER'S HOSPITAL FOR STONE—House-Surgeon: £50 per annum, board and residence.

STOCKWELL FEVER HOSPITAL—Temporary Resident Medical Officer: £3 per week, board, lodging, etc. Applications, 9th instant, to the Committee.

STOURBRIDGE DISPENSARY—House-Surgeon and Secretary: £130 per annum, furnished rooms, and allowance for horse hire. Applications, 8th inst., to J. H. Shepherd, Honorary Secretary.

STRANORLAR UNION, co. Donegal—Medical Officer, Public Vaccinator, etc., for the Stranorlar Dispensary District: £100 per annum, and fees. Applications, 12th instant, to John Gunning, Honorary Secretary.

UNIVERSITY COLLEGE, London—Professor of Comparative Anatomy and Zoology. Applications, 31st inst, to John Robson, B.A., Secretary to Council.

WEST BROMWICH DISTRICT HOSPITAL—House-Surgeon: £80 per annum, board, residence, and washing. Applications to P. D. Bennett, Esq., West Bromwich

WESTMINSTER HOSPITAL—Physician; Assistant-Physician. Applications, 13th instant, to F. J. Wilson, Secretary.

WESTRAY and PAPA WESTRAY, Orkney—Parochial Medical Officer: £50 per annum, and house and private practice. Applications to James Scott, Inspector of Poor.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Gamer, John E., M.B., appointed Senior House-Surgeon to the Preston Royal Infirmary, *vice* R. Blair, M.D., resigned.

Gamgee, A., M.D., F.R.S., Professor of Practical Physiology and Histology at Owens College, appointed Assistant Physician to the Children's Hospital, Pendlebury, near Manchester.

Gemmell, Samson, M.B., appointed Assistant to the Professor of Practice of Medicine in the University of Glasgow, *vice* A. W. Smith, M.D.

Guthrie, George, M.B., C.M., appointed Assistant Medical Officer to the County Asylum, Burntwood, Lichfield, Staffordshire.

Stewart, Donald, M.B., appointed House-Surgeon to the Blackburn and East Lancashire Infirmary, *vice* Williams, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

***Hunt**, Richard Thomas, Esq., Consulting Surgeon to the Manchester Royal Eye Hospital, at Disley, Cheshire, aged 71, on September 22nd.

Lomax, Henry T., M.R.C.S., late of Sutton-in-Ashfield, Notts, at Cheadle, aged 62, on September 16th.

Robson, F. A. H., M.D., at Iver, Bucks, on September 21st.

Stokes, John Fred, L.R.C.P. & S.Ed., at Bootle, near Liverpool, aged 26, on September 18th.

Thompson, Robert, Esq., Surgeon, at Norwich, aged 62, on September 21st.

Wood, William Thomas, M.B., eldest son of Andrew Wood, M.D., at Darnaway Street, Edinburgh, on September 28th.

Testimonial.—Dr. O'Neil Quin has been presented with an address and a purse of two hundred and fifteen sovereigns, on the occasion of his resigning his office as medical officer of the Silvermines Dispensary District, which he held for upwards of half a century, and as medical officer to the Nenagh Union Workhouse, which office he held for twenty-two years.

Presentations.—Mr. Shelton Jones has been presented with an illuminated address, handsomely framed, a lithographed list of subscribers, and a purse containing sixty sovereigns. The address was as follows:—"Testimonial presented to Mr. Shelton Jones, L.R.C.P. and L.R.C.S., by personal friends and well-wishers, on the occasion of his leaving Denbigh, together with a purse of sixty sovereigns, subscribed in testimony of their late regard for him, as well as their appreciation of that high personal and professional character which led to the following resolution being passed by the Board of the Denbighshire Infirmary, on accepting his resignation as house-surgeon of that institution: 'Denbighshire Infirmary Board Room, August 1st, 1874. Proposed by Dr. Turnour, senior medical officer, and seconded by Mr. J. R. Heaton, Plas Heaton. The governors and subscribers record with regret their sense of the loss the charity will sustain by the resignation of Mr. E. Shelton Jones, house-surgeon to the institution for a period of upwards of five years. During the time he has held that office his professional skill, personal kindness and attention have been devoted to the welfare and comfort of the sick and suffering poor who have been placed under his charge. The governors and subscribers cannot permit their connection with Mr. Jones to sever without expressing their appreciation of his unblemished private character and professional zeal and ability.'"

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Dr. John Williams, "On the Relation between Congestion of the Uterus and Flexion of the Organ"; Dr. Bathurst Woodman, "On the Prevention of Mammary Abscesses by the application of the Principle of Rest"; Dr. Gervis, "Cases of Retroversion of the Gravid Uterus"; Dr. Madge, "Case of Ileo-cæcal Intussusception in an Infant of Eight Months"; and other communications.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Dalby, "Case of a Foreign Body impacted in the External Auditory Meatus"; Mr. Haward, "Case of Caries of the Cervical Spine"; Dr. Southey, "Case of Extensive Cancer in the Lung".

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

MR. E. R. MORGAN.—The communication can only be inserted as a paid advertisement.

SKIN-DISEASES IN DOGS COMMUNICABLE TO MAN.

SIR,—I should be glad to know if any irritating eruption having origin in contact with dogs has been noticed by systematic writers or others? I ask with reference to several cases of a cutaneous affection occurring in one family in which a pet dog is suspected as the cause of the annoyance.

The eruption in my patients corresponds very closely to Wilson's definition of eczema rubrum. The dog in question evinces by his actions unmistakable signs of cutaneous irritation; but in him I have seen no eruption.

September 1874. I am, etc., M.R.C.S.

READING AT MEALS.

SIR,—One often hears it said that it is injurious to read while eating; that it is prone to cause indigestion, etc.; theoretically, by diverting the blood from the stomach. I should much like to have the opinion of some of your readers on this subject, and hope this may be the means of promoting a discussion in your pages. For myself, I can but think that light reading, as conversation, tends to improve digestion. I am, etc., BACHELOR.

THE ANALYSIS OF BUTTER.

SIR,—In No. 713 of your JOURNAL, we see a note on Butter. In *Food, Water, and Air*, for July, we published a method for estimating foreign fats in butter, based upon the fact that butter contains 9.5 per cent. of volatile acids. Mr. Wanklyn now states that he was only able to obtain 0.1 per cent. of butyric acid, adding, "possibly the butter-fat was not quite dry", thus expressing his belief that we mistook water for volatile acids. We are sure Mr. Wanklyn is aware that water does not neutralise caustic potash. By mere distillation of butter-soap with dilute sulphuric acid, we obtained as much as 7.2 per cent. of volatile acids, which neutralised a large quantity of standard potash solution. The greatest care was taken to secure absence of chloride of sodium.

We cannot understand why Mr. Wanklyn directs his attack against Dr. Hassall, he being the editor of *Food, Water, and Air*, and not against the authors of the paper. We are, etc., ARTHUR ANGELL, F.R.M.S.
Ventnor, September 2nd, 1874. OTTO HEHNER

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITIS MEDICAL JOURNAL, should be forwarded direct to the Publish Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, later than *Thursday*, twelve o'clock.

F.R.C.P. (Tavistock).—We do not answer medical questions unless they are asl by medical men.

AN APPEAL.

IN our impression of September 5th, we published an appeal from Mr. de Berdt Hovell on behalf of the widow and daughters of the late Dr. T. C. Lewis. The following letter from Mr. de Berdt Hovell shows the state of the fund subscribed for the benefit of Mrs. Lewis and her daughters up to the present time in response to his appeal.

"Sir,—I have just received the contributions in behalf of the widow and daughters of the late Dr. T. C. Lewis, which you have acknowledged in the JOURNAL, amounting to £6 10s. I am much obliged to you for the trouble you have taken, and beg to state that I have received, in addition, the following sums.

	£	s.	d.
A. W. Moore, Pimlico	0	10	0
J. F. Wilton, Folkestone	1	1	0
D. Davies, St. Leonards	1	1	0
A Friend	2	0	0
R. B. Ruddock, Richmond Hill	0	5	0
Dr. Bull, Hereford	3	3	0
H. Stear, Saffron Walden	2	0	0
A. R. Graham, Weybridge	0	10	0
W. Martin, Hammersmith	1	1	0
R. Barker, Sunderland	0	10	0
T. Prichard, Northampton	5	5	0
J. Liddle, Bow Road	1	1	0
Dr. P. H. Pye-Smith, Finsbury Square	2	0	0
W. Gayton, Homerton	0	10	0
W. T. King. Victoria Park Road	0	10	6
Mrs. Astle, (Stoke-upon-Trent)	1	15	0
E. M.	0	10	0
F. M.	1	5	0
J. R. Clouting, Thetford	0	5	0
James Adams, Finsbury Circus	1	1	0
Dr. Clapton, St. Thomas Street	2	2	0
Total	£28	5	6
Amount received by the Editor	6	10	0
Amount received by me	28	5	6
	£34	15	6

"I am, etc., "D. DE BERDT HOVELL.
"Five Houses, Clapton, E., September 30th, 1874."

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Sept. 28th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle: The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Lisbon News Letter; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

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AN ADDRESS
ON THE
PROGRESS OF SANITARY REFORM.

DELIVERED AT
The Annual Meeting of the Social Science Association.

BY

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My address has been written under peculiar conditions, and requires apology. When the session of Parliament ended, I had not found time to consider even what the subject of the address should be. Since then I have been rambling in Switzerland and Italy, and of course have had no access to books of reference. Under these circumstances, I thought it best to address you in the capacity of an old sanitary reformer; for it was as long ago as 1846 that, as a member of the Royal Commission on Public Health, I published my report on the state of large towns in Lancashire. The memories and gathered experience of a veteran sanitary reformer may not be without interest, even if they are related without that method which would have been more apparent had the address been written in his library.

The first question which occurs is, Are we making distinct and satisfactory progress by our sanitary measures? The answer to that question depends upon our periods of comparison. If we go back far enough in the history of our country, there are distinct assurances of improvement. Suppose that we begin with the Restoration, although our earlier records relate to London only. For twenty years after the Restoration, there was an exceptionally high mortality, even for that epoch, in the metropolis, and no doubt throughout the kingdom. Macaulay describes it as a time "when men died faster in the purest country air than they now die in the most pestilential lanes of our towns, and when men died faster in the lanes of our towns than they now die on the coast of Guiana." He was right, for the rate of mortality in London from 1660 to 1679 was no less than 80 in the thousand. Let us put in a tabular form the rates of death at various periods since then. The annual deaths from all causes per thousand of the population were:—

1660-79	80.0
1681-90	42.1
1746-55	35.5
1846-55	24.9
1871	22.6

If, instead of a single year 1871, we take the average of thirty-four years, the existing death-rate in England is 22.4 per 1,000. Hence one gratifying fact comes out clear and palpable, that the death-rate is on the whole continually decreasing in this country, and that the chances of our lives are much better than in the days of our ancestors. If we restrict our view to the periods of the last two censuses, 1861 and 1871, we are at first disappointed by learning that the mean age of the whole population was exactly the same, 26.4, in both these years, and that the rate of mortality is only slightly different, two children out of 1,000 of the population being annually saved in the last year of the decade, while one more adult is cut off. But it would be a mistake to suppose that a stationary mortality necessarily indicates no improvement. The causes of mortality are increasing, and though the mortality remain stationary, there must be improvements in our hygienic arrangements to prevent the deteriorating action. There is a constant disposition among our population to congregate in towns and to leave rural districts. Hamlets become villages; villages are transformed into towns; and towns grow into cities. At the beginning of this century, England had no town except London with more than 100,000 inhabitants; now there are thirteen. There are 103 towns now in England and Wales containing upwards of 20,000 inhabitants, and these 103 towns contain a larger population than the whole of England and Wales did at the beginning of this century. And as the rate of mortality is largely influenced by the density of population, the causes producing sanitary improvement must be at least equal to those of deterioration. But that remark applies to England only; for when we turn to Scotland the deteriorating influences become unhappily too apparent. The following numbers give the rate of mortality for every thousand of the population in Scotland.

	1855-59.	1861-70.
Principal towns ...	26.93 ...	28.18
Large towns ...	23.94 ...	24.58
Small towns ...	20.27 ...	22.08
Rural districts ...	16.20 ...	17.30

Thus, every class of districts in Scotland is augmenting in its rate of mortality. Do not let us Scotchmen, saturated as we are with national pride, shut our eyes to this startling fact. Our towns are increasing in density of population, and sanitary appliances are not equal to the increase. But the character and habits of the population are also changing. Scotchmen emigrate in large numbers, while an Irish Celtic population takes their place. From ten to thirty per cent. of the population of our towns now consists of this Irish Celtic element, and their habits have not improved the sanitary condition of the Scotch urban populations. But this one circumstance is far from explaining the general deterioration, which is nearly as marked in small towns and rural districts as it is in the centres of manufacturing activity. No doubt the death-rate is much in proportion to the density of population; but it is not in proportion to the numbers in a city. The death-rate of London, that huge metropolis, is only 22.4 per 1,000, or the same rate as that of small Scotch towns, and very different from 30.4, the death-rate of Glasgow, or 31.3, the death-rate of Greenock. Nor can the difference be due to climatic severities, for while 30.4 out of 1,000 die in Glasgow, only 19.4 die in the rural districts of Lanarkshire. Let me leave this part of the subject for the present, although I will return to it hereafter, to consider the causes which govern life and death, so far as disease is preventable by agencies over which man has control. My phrase is unphilosophical. Man has not control over a single natural force. He may indeed use the forces of nature, by means of his intelligence, to effect a specific end, but he cannot turn them a hairbreadth out of their course. The laws of health, like other laws of nature, are relentless in their severity. If you stand on the verge of a precipice and overbalance yourself, the law of gravity relentlessly pulls you down and dashes you to pieces on the base. Equally without mercy are you punished for the smallest infraction of the laws of health, whether you live in cities or in fields. Man, indeed, has no control over a single law of nature, but if he live in obedience to these laws, he will find that they are arranged with supreme beneficence for his well-being. An intelligent submission to them produces health and longevity, while the slightest infraction of them is mercilessly punished with disease and shortness of days. What are these laws? Many are known; others remain to be discovered. For my purpose, at present, I can only refer to some of the more important.

By Public Health is meant the health of communities, as distinguished from that of its individual members, though necessarily the former is the sum of the positive and negative conditions which act upon the individuals. The health of an individual depends not merely upon existing, but also on antecedent causes. Part of his health is transmitted from his ancestors, and may be a mere survival of hygienic conditions which have been extirpated. Part of our health also depends upon the external conditions of our upbringing when young, and part also on the influences, physical and moral, to which we are exposed all through our lives. As there is no individual who can be said to have all his organic functions in the most perfect action, so there is no community that can be considered in a perfectly healthy state; for the general health depends upon all the moments of the private health of individuals. The health of a nation, physiologically considered, stands closely in relation to that of an individual. The nutrition and health of an individual depend upon the well adjusted balance of the supply and waste of the particles which compose the body. These particles of the body, all through the life of a man, are incessantly dying and are being replaced by new particles continually springing into life. Every organ is thus undergoing, through its particles, a continued and rapid alternation of death and life. As the whole body is to one of these particles, so is the whole body politic of a nation to the individuals of which it is composed. The death of an individual in a State is strictly analogous to the death of a particle in a single man, and the birth of an individual in a State is the analogue of the moulding of a new living particle into the body of a man. When an individual becomes diseased, there is some want of balance between the waste and supply of his organs—or rather, of the underlying protoplasm which is incessantly changing from life to death. When the waste of the ultimate particles is greater than the power of restoration, disease attacks the individual. So in the body politic: when the rate of mortality is too high, that is, when the individuals of its population, which constitute the particles of the State, waste too rapidly, the State suffers from public maladies. Hence the State medical officer and the private physician work on like principles; for to the former the community, to the latter the individual, is the patient. This relation of the individual to the community, and the reflex action of the community on the individual, give a double motive for sanitary action. For the community, depending as it does on all the moments of health of individuals, requires to watch and cherish them; while each individual must feel that it is his interest to watch the health of his neighbour, upon whose soundness rests the foundation of his own well-being. So that the common law of health is the Christian law :—"Thou shalt love thy neighbour as thyself."

If this analogy between the physiological condition of a community and an individual be real, as I believe it to be, the essential conditions in the health of communities and of individuals must be the same. They must be well clothed, well fed, well housed, well aired, and well watered.

The more we consider the question of public health, the simpler does the problem become in theory, though its attainment is difficult in practice. All that we need aim to secure is purity or cleanliness in the house, the air, and the water, and genuineness in the food and clothes. In fact, a great part of sanitary science can be comprised in that one word—cleanliness. No epidemic can resist clean houses, clean air, and clean water. Death, like the evil demons of old, shuns cleanly places. In olden times, as among the Jews, evil spirits dwelt in filthy places, especially loving tombs and ordure. Every latrine contained a special demon of its own, and does to the present day in a different sense. I am quite sure that the chamber of Sara, the daughter of Raguel, as described in the book of Tobit, must have overlooked a dunghill, otherwise she would not have been so grievously afflicted by Asmodeus, who, out of love for her, strangled her seven husbands. But Tobias, her eighth husband, for whom her father-in-law considerately dug a grave as soon as the marriage was performed, obviously knew that there might be smells even too bad for a demon, for, on the bridal night, he threw the putrid heart and liver of a fish on some burning embers in her chamber, and, as the narrative tells us, "the which smell, when the evil spirit had smelled, he fled into the uttermost parts of Egypt". To my mind, the book of Tobit is a distinct hygienic allegory. The good Tobit had a craze for burying dead bodies, and had all his troubles in consequence of his hygienic propensities. Sleeping in a foul place, the sparrows muted warm dung into his eyes and rendered him blind. But Raphael, whose name, by interpretation, means "the medicine of God", comes as an angelic guide to his son Tobias, and puts all things right by his hygienic knowledge—conquering even the foul demon Asmodeus and curing Tobit of his ophthalmia; acquired, as our workhouse children now get it, by foul air.

The ancients fought against evil smells more vigorously than the moderns. Sometimes, indeed, they simply tried to mask them with perfumes. Thus, when we hear that ancient Capua had whole streets filled with perfumers' shops, we know that it must have been a foul-smelling and ill-governed city. If you were to ask me at the present day what are the best rules for disinfecting foul smells, I could not give you simpler or better ones than those of Ulysses, as described in Homer. After slaughtering Penelope's suitors, and scattering their blood and brains over her spacious halls, he first makes a thorough cleansing :

> "With thirsty sponge they rub the tables o'er
> (The swains unite their toils) ; the walls, the floor,
> Washed with the effusive wave, are purged of gore."

And it is only after thus thoroughly removing every origin of bad smells that he uses a disinfectant to destroy any foul gases which might still lurk in the room :

> "Bring sulphur straight, and fire, the monarch cries :
> She hears, and at his word obedient flies,
> With fire and sulphur, cure of noxious fumes,
> He purged the walls and blood-polluted rooms."

Contrast the proceedings of the wise Ulysses with those of Eidothea, the daughter of the old sea-god. She fell in love with Menelaus, who, with his two companions, was cast upon the island of her father. To conceal them from the old sea-god, she wrapped them in the skins of fresh flayed seals, and made them lie among the flock. Menelaus groaned under the horrid smell of his disguise, till the divine lady brought a powerful scent to mask the putrid odour :

> "Dire was the ambush, and the scent severe,
> Who could a rank sea-beast at such close quarters bear?
> But she, delivering us, a great help planned,
> And placed ambrosia near the lips of each,
> Which in our nostrils breathed an odour bland,
> And the sea monster's stench did overreach."

Ulysses was an excellent hygienist, but Eidothea was not. The first went to the root of the matter and first removed all sources of impurity ; the latter merely concealed a stench by a perfume. Hercules, too, was one of the oldest and most thorough of the ancient sanitarians. He saved the Eleans from pestilence by draining their marshes, and executed a thorough sanitary operation when he cleansed out the Augean stables by turning into them the waters of the Alphaeus. But, of all sanitary reformers, Moses was among the most practical. He was learned in the wisdom of the Egyptians, and they, as we know, were hygienists. One of their commandments, though it does not remain among the ten which Moses brought down from the Mount for our guidance, was, "Thou shalt not pollute rivers". The hygienic laws of Moses, supplementary to his ten moral commandments, are full of wisdom. The purifications required by religious observances were in the main hygienic precautions. The ceremonial part still remains in the East as a survival of a purpose which is now forgotten. Moses gave to us the principle of the modern earth-closet, and excellent rules for isolating and disinfecting diseased patients and their excreta. He established health-officers, or rather, gave to the high priest the function of an officer of health. Before long, we may be obliged to enact the ancient laws of Moses for isolating patients with infectious disease, and for cleansing the houses in which it occurred. In the case of cattle, we knock them on the head and kill them, and there is an end of cattle-plague. We cannot do that with men. But, if we could isolate cholera patients and disinfect their excreta, we could as easily prevent its spread as in the case of cattle-plague. We do isolate them in the case of ships ; why not in houses? The isolation of patients afflicted with small-pox, scarlatina, and measles will one day become a part of hygienic law, though at present it would not be supported by public opinion. In the time of Cardinal Wolsey, plague patients were strictly isolated. During the best times of Greece and Rome, public health was much studied. The anatomical and pathological examination of the intestines of sacrifices was a hygienic precaution to ascertain whether the locality upon which a city was to be founded or a camp pitched was in a healthy condition. The supervision of hygienic arrangements was an office of dignity among the Greeks and the Romans. Epaminondas, one of the greatest military geniuses that Greece produced, did not refuse the office of "telearch" at Thebes, though its chief duty was to supervise the cleansing of the streets. For this Plutarch justly commends him. In like manner, at Rome, the cleansing and disinfection of streets and sewers were placed under a high officer of state, because, as Justinian tells us, "uncleansed and unrepaired sewers threaten a pestilential atmosphere, and are dangerous". Of the surviving works by which the greatness of Rome is still evidenced, perhaps, the first is the civil law, but second stands its sanitary works, as evidenced in the great aqueducts, the cloaca maxima, and other hygienic appliances. It is, then, clear that the ancients knew as well as the moderns the main conditions of public health ; viz., that foulness is the source of disease, and that cleanliness is its preventive. Purity of the person, purity of the dwelling and its surroundings, purity of the air, purity of the water, purity of the soil—in one word, cleanliness—form the beginning and the end of hygiene. It is chiefly amid great plagues and calamities that men look for more occult causes of disease, such as comets, terrestrial exhalations, volcanic emanations, celestial conjunctions, or the poisoning of wells by Jews, just as now people are apt to refer them to electricity or magnetism. Sydenham himself, that model physician, must look deep down into the bowels of the earth for the causes of epidemics—into the *interiora terræ viscera*. Men would not then look at their own surroundings for a simpler explanation, but fastened on some strange phenomenon which might appear. There are some rough mining districts in this country, where, if a strange traveller appear, the boys run after him with the shout, "Here is a stranger; come let us stone him!" Philosophers seized hold of any strange phenomenon in like manner, and pelted it as the cause of human woe. But the progress of knowledge brings us back to the simplicity of ancient faith, that foulness breeds the demons who desolate our hearths, and that they cannot abide in cleanly habitations which they abhor. And so the sum and substance of all our sanitary science accumulated by ages may be summed up in the pregnant advice of the prophet—Wash and be Clean. It is the simpleness of the remedy as a cure for the public ills which so grievously affect us that prevents its public recognition. If I had talked to you about *schizomycetes*, including bacteria and its allied forms, if I had described vibriones, and all those organic bodies which are floating in the atmosphere, or which appear in decaying substances and in the blood of diseased persons, you might have thought that the chairman of the health section had some sanitary learning, and that it was worth coming to hear his discourse. But you revolt at the simplicity of his statement—that cleanliness is the beginning and the end of all practical sanitary work. Well, you are not singular. There was once a rebuke to such doubts given on another occasion : "If a prophet had bid us do some great thing, would we not have done it? How much rather when he saith unto us, Wash and be clean?" That cleanliness—both physical and moral purity—is next to godliness, should be the saving faith of every sanitary missionary.

Do not, however, think that I undervalue the numerous researches which have been made in recent years as to the organised causes of disease, whether we call them by such general names as microzymes or *contagium animatum*. I have read all the memoirs on these subjects with the highest possible interest, for the specific characters of diseases lend much support to such views. When you find that the virus of small-pox reproduces small-pox only, and that of scarlet fever breeds scarlet fever only, you are as much inclined to refer their origin to a specific organism as you are to attribute a puppy to a dog or thistle-down to a thistle. But the researches on the microzymic origin of disease, though vastly important, are scarcely yet within the domain of practical application. These bodies of low organised types are always associated with foulness. But whether putrid emanations are the result of the growth of these organisms, or whether the emanations form the only soil in which they can grow, neither I, nor any one else, can tell you with certainty. Perhaps the problem will ultimately be as insoluble to philosophers, as that involved in the doubt whether it was the first hen that laid the first egg or the first egg that produced the first hen. But what is quite certain is that if filth be entirely prevented none of these entozoa will permanently remain, and therefore the practical maxim should still guide you—WASH AND BE CLEAN. But understand this practical maxim in its full significance. I do not mean mere personal or objective ablution, but an uncompromising war with uncleanliness of all kinds. In this war you may use water as an agent, or disinfectants, or drains, or fire, or any other means of utterly removing and destroying all filth and all its consequences.

Let me now give a few illustrations of the consequences attending the neglect of this hygienic maxim. When the civilisation of the Egyptians, the Jews, the Greeks, and the Romans faded, the world passed through dark ages of mental and physical barbarism. For a thousand years there was not a man or woman in Europe that ever took a bath. How different that time was from the times which preceded it—when daily baths were common among the poor—you may gather from the praises of personal ablution which abound in ancient authors. Take, for instance, Martial's address to his friend Oppian, on the limpid and unpolluted water in the Virgo and Marcian wave, in which it was rapture to bathe:

> "Water so bright, and clear, and fair,
> You think no liquid can be there;
> You're not attending, Oppian,
> You'll die without once having washed, poor man!"

But only think what must have been the state of Europe when thirty-three generations were like Oppian, and never once washed, if their historian Michelet is to be believed. No wonder that there came the wondrous epidemics of the middle ages, which cut off one-fourth of the population of Europe—the spotted plague, the black death, sweating sickness, and the terrible mental epidemics which followed in their train—the dancing mania, the mewing mania, and the biting mania. But even when the middle ages had passed away, and the sun of civilisation was again rising over the gloomy darkness of these centuries, what a heritage of filth-produced disease still remained! Look at Defoe's or Montaigne's description of the plagues of their day. Montaigne gives us some statistics which Defoe does not do. The plague at Bordeaux, from which Montaigne fled to his country-house, killed 18,000 out of 40,000 people. It followed him and destroyed whole villages. The harvest was not reaped, the grapes were ungathered, and men's minds were occupied not with the thought of life, but how to protect their bodies from wild beasts after their death. He draws a terrible picture of one of his own workmen, whose last act of life was to draw the earth over his expiring body. It is not a pleasing task to dwell on the habits of the population, even in our country, in past times. Go back only to the time previous to the Reformation, and you can have no difficulty in understanding why luxury and squalor produced the plagues of the times of the Tudors and the Stuarts. High above all other dwellings were the castles and the monasteries; but the cabin of the peasant was worse than any to be now found in the furthest isles of Scotland. It was made of reeds and sticks plastered over with mud. In these wigwams lived an ague-stricken population. In the towns, the mechanics lived in rooms without glass windows, slept on straw beds, and worked in workshops unheated by coal fires. Even in well-to do houses, rushes covered the earthen floors, and got saturated with scraps of food, which remained to putrefy under a new layer of rushes scattered over it, so that the "petremen" came to dig saltpetre out of the floors. Filth, instead of being abhorred, was almost sanctified. The monks imitated the filthy habits of the hermits and saints of early Christian times, for the early fathers commended them. Even St. Jerome used to praise the filthy habits of hermits. He especially commends an Egyptian hermit who only combed his hair on Easter Sunday, and never washed his clothes at all, but let them fall to pieces by rottenness. St. Antony never washed his feet. St. Thomas à Beckett, when martyred, had under garments in a state which makes one shudder in the remembrance. And so the monks up to the time of the Reformation, and indeed in part up to the present day, thought, or professed to think, that by antithesis, pollution of the body indicated cleanliness of the soul. Practically, indeed, it helped to it; because the odour of sanctity, which infested these old monks and hermits, helped to keep them apart from the temptations of the world; for the world scarcely cared to come into too close contact with these odoriferous saints. But this association of filth with religion was unhappy in its consequences, for men ceased to connect disease with uncleanliness, and resorted to shrines and winking Virgins for cures of maladies which were produced by their own physical and moral impurities. Under all these influences plagues were very destructive in England. Men first began to connect them with filth by some striking examples. Thus, in 1665, when the Court and Parliament assembled at Oxford, it had an immunity from plague, and the reason of this immunity was traced to the thorough cleansing which the magistrates gave to the city to fit it for its distinguished guests. The great fire of London, also, taught Englishmen a wholesome lesson, for it came as a great sanitary agent to extirpate the foul nests of disease in the metropolis; and so at last the moderns learnt what the ancients knew very well, that public health can only be assured by cleanliness, and that filth is the parent of disease both among individuals and communities.

Hippocrates, who was the first hygienist that wrote a whole book on public health, took as his text pure air, pure water, and a pure soil, and you see we have arrived at nearly the same view of the essential conditions of health. Napoleon, as a result of long experience in the hygiene of armies, came to the same conclusion, for he said to Antonomarchi at St. Helena, "Life is a fortress which neither you nor I know anything about. Why throw obstacles in the way of its defence? Water, air, and cleanliness are the chief articles in my pharmacopœia." And so are they in the pharmacopœia of the public health medical officer. Let us consider them separately. Air is of all things the most familiar to us, and the one most forced on our observation. To breathe it is the first act of life; to be unable to respire it is the last act, which is followed by death. All during life it is never absent from our voluntary or involuntary actions. It fans us with gentle breezes, and it buffets us with storms. Surely we ought to know everything about this familiar object; yet, in fact, we are by no means intimately acquainted with it. During my lifetime it has incessantly presented new phases to closer observation. When I was a student of chemistry at the Andersonian University in this town, a pupil of my dear friend Graham, whose statue now adorns George's Square, air was a mixture of oxygen and nitrogen, with moisture and accidental quantities of carbonic acid. Then, when I went to Giessen to study under another dear departed friend, Baron Liebig, I learned for the first time that it contained ammonia, and that this with the carbonic acid constituted the food of plants; then, as years passed, nitric acid and ozone were found in it. Still later, it was found to contain organic matter in decay and multitudes of living organisms, which exercise much influence on decay and putrefaction. When such interesting strangers are born in the lifetime of an individual during half a century, how little do we know of any object the most familiar to us. Of the air that we incessantly breathe, and of the water which we continually drink, our knowledge even now is far from complete. But this we do know, that air, pure, free, and abounding air, contains within itself the power of purifying itself from all the abominations which we pour into it, and that it is a wonderful mechanical scavenger for carrying away all gaseous impurities. If you only imitate the ways of nature in your hygienic arrangements, they will be fruitful in good results. The excreta of animals during life, and their bodies after death, all pass through the processes of putrefaction and decay, and in new forms enter into the atmosphere. With such a mass of festering corruption in the world, there must be some provision not only to render these gaseous emanations innocuous, but also to convert them into objects of positive utility. The first process is never to allow the contaminated air of one part of the atmosphere to remain in the same place. By the great polar and equatorial currents, and by the local winds which are mere eddies in these great streams, the putrid emanations are spread uniformly throughout the atmosphere, and when made truly gaseous they are still further mixed by diffusion. The oxygen of the air chemically attacks the organic matters of the miasms and foul products of decay, and burns them up as completely as if they were passed through a fire. Their organic character is thus destroyed, and they pass into the inorganic forms of carbonic acid, water, and ammonia, which are in fact the food of plants. The ozone of the air is oxygen in a more active form, and is a strong burner up of decaying matters. Supposing, however, that a shower of rain washes some of the foul matter out of the air before its oxidation or burning is complete, the air follows it to the soil, which from its porous character absorbs oxygen, and thus the soil acts as a disinfectant, and prepares the foul materials to become the food of plants.

This conversion of putrid matter into carbonic acid, water, and ammonia is undoubtedly the final result of natural purification. The desire to attain it speedily has been recently expressed in the attempts to revive the cremation or burning of dead bodies. I quite approve of the end proposed, though I am not quite clear as to the means of producing it. Burial in a porous soil produces the same results; and, if the earth be sufficient and well selected, it does so quite inoffensively. Then the bodies decay, not by putrefaction alone, but by eremacausis. That word, which is merely the scientific word for decay, means burning by degrees, from ἠρέμα, "by degrees", and καῦσις, "burning". So a porous soil, containing sufficient loam to be absorptive, is in fact a slow furnace, where burning is complete in itself. Sepulture was adopted by the Egyptians, who never doubted the resurrection of the body, and was continued by the Jews, although there is very little evidence that they believed in a future state. But modern science tells us that we may burn or bury the dead utterly regardless of the body itself, for that inevitably, sooner or later, passes into gases destined to be the future food of plants, and, through them, of successive generations of men and animals. If cremation, therefore, be the most practical process of attaining this inevitable end, I see no objection to it. Only I doubt whether it is so. Many years since, I proposed that bodies should be thrown into gas-retorts, heated white hot. The volatile portions would be converted into illuminating gases, which might at once be burned, or, if desired, could be used, so that we might continue to live in the light of our ancestors; while the residue, in the same form as the body, would be harmless coke, and might be given to the survivors for sepulture. This process, I think, is more practically attainable than cremation in crowded cities, and is equally sanitary. But, as I get older, I am inclined to think that the process of burial in the earth is the wisest of all, provided it is done with honesty—not in the midst of populations or with overcrowding of the dead, as with the living—but allowing sufficient absorptive earth to secure the final result, equally the end of cremation and sepulture, that the whole organic matter of the body shall pass into the gaseous forms of carbonic acid, water, and ammonia. These, as I have shown you, are the final results of atmospheric purification.

How differently do we act in our civic arrangements! Instead of allowing garbage to be freely oxidised, or applying it to plant-life, which is its natural destination, we dig holes close to our own doors, and cherish the foul matter in cesspools, under conditions in which air cannot enter freely, and therefore the most favourable for injurious putrefaction. We forget the experience of our forefathers, that every cesspool has its own particular evil spirit residing within it; and we are surprised when the demon emerges, especially at night, and strikes down our loved ones with typhoid fever or other form of pestilence.

Perhaps we go a step further in the hygiene of moderns, and do throw the foul matter into drains, which empty themselves into our once beautiful rivers; though in many cases they are still used as a beverage by people lower down in the stream. And, when they remonstrate with us, we, surly wolves, growl at the poor innocent lambs lower down the stream because they object to drink our abominations. This country once gloried in her beautiful rivers; but they are now mere open ditches, which pollute the districts through which they flow. Rivers in their normal state contain dissolved air sufficient to oxidise and destroy any accidental organic contaminations. This purifying power of air dissolved in water is essential, because no water, either in rivers or springs, could otherwise be pure. All sources of water are ultimately obtained from rain; and that is never pure, because it washes out organic impurities from the atmosphere. At the same time, it carries down air in solution, so that it brings with the poison its natural antidote. The air-purifying process is, however, limited, and is altogether insufficient for streams polluted with town-sewage and manufacturing refuse. In them you find no free oxygen, for that has been used up by the first small portion of impurities poured into the streams. Take, for instance, the beautiful Clyde, which ought to wash, but which fouls, this great city. I have analysed its waters miles above and miles below Glasgow. Long before it reaches the outskirts of the city, it is already fouled; but, after passing Broomielaw, its condition is abominable. My friend Dr. Angus Smith has analysed the waters in its isthmus, and has found these pollutions even in the water of the beautiful sea-bathing resorts which are so much frequented by the upper classes of the city. The self-purifying power of rivers, and even of the sea pouring in its tidal wave to dilute them, has no chance against the mass of abominations which large towns pour into them. But there is no longer an excuse for their doing so, for there are now various effective and well matured processes for purifying drains before the water is ultimately discharged into the river. You cannot take out these abominations from the river itself, but you can readily prevent them being put in. Coleridge saw this when he wrote so fiercely on the foul smells of the city of Cologne:

> "But tell me, Nymphs! what power divine
> Shall henceforth wash the river Rhine?"

The only mode of restoring our great rivers from their present condition of open ditches to their natural purpose of watering and purifying the districts through which they flow, is to prevent polluted matters being poured into them. Parliament must enact for this country the ancient commandment of the Egyptians, and say to all municipalities and manufacturers, "Thou shalt not pollute rivers". They have already said so to the latter in regard to air. When I was a student in Glasgow, I remember that the tall chimney of St. Rollox used to vomit forth noxious vapours, destroying vegetation, and annoying the inhabitants. I had some small influence in persuading the late Lord Derby to pass an Act forbidding the pollution of air, and I am sure that the Messrs. Tennant and all other soda-manufacturers are glad that we forced them to condense their acid fumes. Well, I say with perfect deliberation, and after full study of the subject, that our knowledge in regard to the purification of drain-waters, whether these contain town-sewage or manufacturing refuse, is abundant and practical; and that all municipalities and manufacturers should now be prohibited by heavy penalties from fouling rivers. The compulsion would be a positive benefit to both. I may remind you that the present Prime Minister has lately told a deputation that he is greatly interested in this object. I hope that he is destined to do for water what his former friend and political chief, Lord Derby, did for one of the many impurities in air. Such a triumph of sanitary legislation would be worthy of the great State doctor who has taken as his motto "Sanitas sanitatum omnia sanitas". If he achieve the purification of our rivers, I am sure that I can promise him from this Association, and indeed from all political parties in the State, an amount of applause which can best be expressed in the words, if not in the meaning, of Macbeth, when he says:

> "Come, sir, despatch; if thou couldst, doctor, cast
> The water of our land; find its disease,
> And purge it to a sound and pristine health,
> I would applaud thee to the very echo
> That should applaud again."

Mr. Disraeli has obviously thought much about subjects of public health, as evidenced in the wise observations of Mr. Phœbus in *Lothair*. When, then, in his celebrated Manchester speech, he pledged himself that a Conservative Government would devote special attention to sanitary subjects, I believe that he expressed a deliberate and mature conviction. But hitherto, probably from the force of circumstances, we have had promises only, without their fulfilment. Surely another session cannot pass without a serious attempt at sanitary reform, when we recollect that the Prime Minister of England is the same orator who used the following remarkable words: "I think public attention ought to be concentrated on sanitary legislation. I cannot impress upon you too strongly my conviction of the importance of the Legislature and Society uniting together in favour of these important results. After all, the first consideration of a Minister should be the health of the people."

In the recent progress of hygiene, nothing has been more clearly proved than that diseases are largely propagated through foul water; and recent investigations seem to point to the unpleasant circumstance that the germs of disease chiefly come from the excreta of men as they enter into a state of putridity. Whole villages and streets in large towns have been stricken with disease by portions of human excreta finding their way into water. Take the fever epidemic in London last year. A dairy company used the water of a well which had received the drainage of a person infected with fever; this drainage having percolated through the soil to the well, and contaminated it in the usual manner in which well-water is so constantly fouled. Hundreds of persons, among whom were some of my relations, were stricken down by the milk polluted with this impure water. Take as another example the case which has happened while this address is passing through the press. A large public school, supported by national subscriptions, is thoroughly wrong in its hygienic arrangements. In its cisterns are foul waters, and close to its playgrounds are filthy cesspools. A most distinguished sanitarian—Dr. Anstie—visits it, and is lost to the world and to science during his inspection. Let us hope that the sacrifice of this precious life may lead to much sanitary improvement in our public schools. When the virus of disease enters the body in a state of solution, it is in a state most favourable for development. And, as water is the common vehicle for removing impurities from dwellings, it becomes especially important to prevent waste water from entering into any source of water-supply which is to be used for drinking or any other domestic purpose. But what is the condition of many towns, such as London itself? They are situated on rivers from which their water-supply is derived; and it may be, and often is the case, that hundreds of thousands of persons pour their abominations into the river before it is used for the town lower in the stream. London in this way has to drink all the foul drainage of about a million persons above it in the stream. The people cannot realise this nastiness, or they would not tolerate it for a day. Glasgow is happily situated in this respect, for it receives the pure and soft water of Loch Katrine. If London had such a source of supply, I believe that it would stand as a model in its death-rate to all the towns in the kingdom.

From what I have already said, you will observe that the natural purifiers, on which we should rely in combating the pollution of our cities, are a free supply of untainted air, unpolluted water, a porous soil, the pores of which are open and not filled up by undrained waters, and, let me add, a healthy vegetation in the squares of our towns to help to purify their atmospheres, and to pour into them life-giving oxygen. It is the want of these conditions which make both town and country dwellings unhealthy.

In ancient as well as in modern hygiene the importance of an adequate ventilation of streets and houses was well known. It was also a matter of recognised experience that even efficient ventilation of these would be of little use unless the ground on which they were built was also ventilated—that is, drained of underlying water, so that the air might penetrate and circulate freely through the porous soil, in order to disinfect it from the continually accumulating *débris* of a crowded population. A few years since, while wandering amid the ruins of Cæsar's palace at Rome, I was stricken with the well known fever of that city, and during my convalescence I had ample time to speculate on its causes. Those of you who have been in Rome will recollect how shallow now is the depth of the Tarpeian rock, and how deep down below the level of the surrounding streets are the floors of the forum and ancient temples and palaces. All that is above them is the organic and inorganic *débris* of thousands of years, which when stirred up, and coming into contact with oxygen, begins again to decay, and continually emits those exhalations which find their expression in the Roman fever. The same is the case on the site of ancient Jerusalem. I remember to have read somewhere that when a shaft is sunk to the base of the Temple, the decaying matter of many past generations is set into action, and quickly destroys the wood with which the shaft is lined. Unless, therefore, the soil upon which a city is built is well drained and ventilated, the dwellings of the city cannot be healthy. It is not in fevers alone that the influence of the soil is apparent. Probably consumption itself, that great scourge of this country, is a chronic zymosis, or disease like many of our fevers, arising and communicable from like hygienic deficiencies. It is greatly mitigated by drying and ventilating the soil, as well as by ventilating the dwellings. After the sewerage of Salisbury had been made effective, the deaths from phthisis fell 49 per cent., in Ely they fell 47 per cent., in Rugby 43 per cent., and in Banbury 41 per cent. Dryness, and elevation, and well-ventilated rooms are powerful means to prevent, as they are to retard, consumption. In the last generation the average period of that sad disease was two years. Now, according to Dr. Williams, it is eight years. With pure air in the soil and in the dwelling, let us hope that the succeeding generation will point to it as a rare disease instead of as one of the most common maladies of this country.

Free ventilation around the houses, as well as within them, was enjoined by the ancients, but was as much neglected by them in practice as it has been by the moderns. Zeno ordered, after a long neglect, that houses in Constantinople should be twelve feet apart all the way up. His orders were disobeyed, but fire in Constantinople has repeatedly done for it what fire has done in London. Ancient Rome, like modern Glasgow, became very bad with its closely built houses, and at last they were ordered to be five feet apart, and not more than nine storeys high. Augustus limited their height to seventy feet, and Trajan to sixty feet. We do not know how many people lived in these houses, or how many congregated on an acre. But we do know some facts as regards our own population. Taken on an average all through England, the towns are less packed with houses and people than one could have anticipated. In primitive countries, where the savage lives on the produce of the chase, there is one inhabitant to each square mile. In the time of our Saxon ancestors in this country there were five houses to each square mile, and probably about thirty inhabitants. Good but high-handed Queen Elizabeth was so horrified with the gigantic growth of London, although it then contained only 160,000 people, that she forbade the erection of any more buildings within three miles of London and Westminster, and she prohibited the division of a house into tenements for various families, "because" (I quote her own words) "great multitudes of poor people inhabiting small rooms, and those very poor, and such as must live by begging or worse means, being therein heaped together and in a sort smothered, with many families of children and servants in one house or small tenements, it must needs follow that, if plague or sickness came amongst them, it would presently spread through the whole city and confines." Well, does this not sound like modern lecturing in the crowded city of Glasgow, where noble and gallant efforts, however, have recently been made to mitigate the evil, and with a large promise of success? In Queen Elizabeth's time there were 15 houses and 83 people to the square mile in the whole of England. Now there are 73 houses and 390 people. In all the English towns—excluding the rural districts—there are 713 inhabited houses, and 4,061 inhabitants to a square mile. That gives nearly an acre to each house containing six persons. You see, therefore, that the area of a town is far from being wholly occupied. But just compare that with large parts of Glasgow before the passing of its Improvement Act in 1866. Instead of six people to an acre, which is the urban average in England, there were districts with 600 people to the acre, 50,000 people being huddled together on 80 acres. In 1871, when the census was taken, only 5½ per cent. of all the families in Glasgow had more than four rooms, or, in other words, 94½ per cent. of the families had such insufficient accommodation that in no case had they more than four rooms, and in most cases fewer. Edinburgh has 78 per cent. with this scant accommodation, and 22 per cent. with the superior, and its rate of mortality is 2.57. If you now compare, by a simple rule of three, the relative density of population with the relative mortality of Edinburgh and Glasgow, you will find that the increase of mortality in Glasgow nearly corresponds to its increased density in population.

The four towns of largest mortality in Scotland—Paisley, Dundee, Glasgow, and Greenock—have such dense populations that from 93 to 94 per cent. dwell in houses with four rooms and under. Notwithstanding the efforts made in Glasgow and Edinburgh to improve the house-accommodation of the poor, the latter often defeat the intentions of those who built capacious houses, because they overcrowd them with lodgers. The working man does not spend the same proportional amount on rental that the middle class man does, and is apt to try to decrease his weekly house payments by adding lodgers to the other inmates, who are already amply sufficient for the accommodation provided. If a room be adequate in its cubical contents of air for one person sleeping within it, yet it may be wholly inadequate for two or more persons. Although the amount of air required by an individual for respiration is comparatively small, yet he fouls so much air both by carbonic acid and organic exhalations that a large quantity of air must pass through an apartment to keep it sweet. If the air contain even one cubic foot of carbonic acid to 1,000 cubic feet of air it is vitiated air in an apartment. Now, to keep pure air in a room, from 2,000 to 3,000 cubic feet should be allowed to pass through a chamber every hour for each person sleeping or living in it. I need not trouble you with the data for this assertion. It is not a large enough allowance for hospitals or for rooms where there are exhalations of the sick. And, unluckily, the prevailing impression is that a far smaller amount of air suffices. In schools, for instance, often not one-fifth the amount of ventilation is given which is requisite for health.

Our rooms would become intolerable if it were not that there are natural, though insufficient, sources of ventilation beyond our control. The walls and mortar, though not transparent to light, are transparent to air, and through them is constantly passing an interchange of vitiated and pure air. Brick, is, however, more porous to air than sandstone or limestone, and Scotch houses are not so easily ventilated by natural means as English houses. Indeed, were it not that the mortar which joins the stones happens to be readily permeable to air, stone houses would be in a bad condition. Of course it is obvious, that the fewer persons there are in a house or room, the greater becomes the superficial area of the building to each individual, and the more efficient the uncontrollable ventilation. Still air is of little use in ventilation, for the origin of the word, *ventus*, wind, indicates that there must be air in motion. There are only two practical modes of producing this in our dwelling-rooms. We must either admit the external air when it is in motion, or we must produce movement by an elevation of temperature, such as fires, within the room. As the pernicious effect of draughts on susceptible persons depends on an abnormal cooling of the body, the task of the ventilator is to obtain efficient change of air without chilling one part of the body more than another. In modern hygiene, nothing is more conclusively established than the fact that vitiated atmospheres in our dwellings and their surroundings are the most fruitful of all sources of disease. The exceptions to this statement are easily explained. Thus, in the wretched dwellings and filth-polluted premises in the islands of Scotland, you would expect to find a large rate of mortality, when in reality it is comparatively small. The reason is, that during the day the inhabitants respire pure air, and during the night it circulates freely through their badly constructed cabins, neutralising the foulness in which they are content to live. But in great cities like Glasgow there is no ozone-bearing air within miles of any part of it, and the houses are built of materials which render natural ventilation difficult. Then comes the packing up of the population into an incredibly small area, and the death-rate tells the woeful result. There is no subject to which I look with more interest than to the results which may be expected from the vigorous effort which the municipality of this city has made in recent years to mitigate this evil. The example is already telling on London, and I hope that the efforts of my friend Mr. Kay-Shuttleworth, and others, will be crowned with success next session, and that we will see a large effort to improve the dwellings of the poor in the metropolis. Light and air are as necessary to the dwellers in cities as they are to the trees of a forest. There you see trees, pining for air and light, push their branches in the direction of every inlet. In their struggle for existence many are dwarfed, and come to nothing; a few, stronger and more robust in constitution, push aside the weaker, and appropriate the essential conditions of life to themselves. If the forest be under skilled care, the forester, with his pruning-knife, cuts down the weak saplings, and leaves sufficient space for air and light to those of promising growth. But, in an overcrowded city, grim Death, with his scythe, exercises little discrimination, and cuts down all those who come within its fell swoop. I have only alluded to the physical evils of overcrowding; but the moral evils are greater still. Although there is an excessive rate of mortality in overcrowded districts, there is no lessening of the population by such unhealthy agencies. A crowded and unhealthy district, with all its inevitable consequences of low morals and low intelligence—where the condition of human beings is scarcely above that of animals—where appetite and instinct occupy the place of higher feelings—where the barest means of support encourage the most improvident and early marriages—is not the place where we shall find a diminishing or even stationary population. For the early unions in such places are followed by early offspring; and, although more than half that offspring may be swept away by disease during infancy, yet nearly a third of it will grow up in spite of all the surrounding evils, to follow in the steps of their parents, and in their turn to continue a race, ignorant, miserable, and immoral as themselves.

Next session, the Friendly Societies Bill purposes to deal with some of the many causes of juvenile mortality. The death-rate of children in a district is a sort of hygienic barometer of the surrounding physical and moral atmosphere. It is in a falling state in Scotland. The deaths among illegitimate children especially are on the increase. That is new in Scotland, but it is old in England. In some districts in London their rate of mortality, when put out to nurse, is 70 to 75 in the hundred within the first year, and in many manufacturing towns the deaths of illegitimates are 30 per cent. King Herod was not a more efficient baby exterminator than such hired nurses. But there are many moral causes of infantile mortality besides illegitimacy. When I reported on the hygienic state of the large towns of Lancashire in 1846, I was much censured because I dared to show, by statistics, that the children insured in burial societies died faster than uninsured children. That parents should neglect their children for their burial money is very horrible; but the conviction that they do so was strongly forced upon me by the evidence, and twenty-eight years later it is again forced on public attention by the far higher authority of the Friendly Societies Commissioners. In 1846 I also was distressed to find the use of opiates among children very prevalent in manufacturing districts. In this case the motive was not criminal; for the practice had arisen in ignorance of its bad effects. But it was not difficult to trace a large amount of direct and indirect mortality to this pernicious custom. Among children the administration of opiates, under the names of quietness and soothers, is nearly as destructive to health as the excessive use of alcoholic stimulants among adults. The craving for both arises from those depressing physical causes of disease which abound in cities. Dirt and drunkenness are often cause and effect. Indeed, the physical and moral causes of disease are nearly as intimately associated as filth is with the entozoa of which I have already spoken. Shocking and repulsive as some of these causes are, especially in relation to infantile mortality, it is no use for us, like ostriches, to bury our heads in the sand and refuse to see them; for it is the relentless King Death who is our pursuer. I have sometimes been unwise enough to think that the enormous infantile mortality of our crowded places might be an important provision for securing a more healthy race of survivors in the struggle for existence. But a little reflection shows how untenable such a view is. We might as well suppose that the abnormal waste of a particular organ of the body was best fitted for the health of an individual as to consider that the increased mortality of unhealthy districts in a town gave a superior race to its surviving inhabitants. No doubt unsanitary conditions first sweep off the weak, and those unfit to live under the continuance of existing causes of disease. But these become stamped at the same time into the organisms of the survivors, who carry them, through inheritance, into succeeding generations, though the original causes may have been removed. The survivors carry with them the seeds with which they have been impregnated during an unhealthy upbringing.

> "A man, perhaps, the moment of his breath,
> Receives the lurking principles of death;
> The young disease which must subdue at length,
> Grows with his growth, and strengthens with his strength."

We are not always neglectful. Sometimes we look upon a human infant as a dangerous animal that may turn round and bite us when it grows up, and so we give some attention to the children of the dangerous classes, and try to tame them by improving their dens and educating them to a limited degree. But the children of the productive classes receive no such public care, and they grow up stunted in frame and of low productive value, because the State does not provide for conditions of healthy human development in crowded populations. If babies were pigs, or oxen, or sheep, the Vice-President of the Council would be daily questioned in the House of Commons if any unusual mortality came amongst them; but, being only human infants, no one thinks of their welfare. Beasts, with a selling value, are taken more care of than men in free countries. I do not remember the proportion of veterinary surgeons to horses, and of surgeons to men in our own army; but I recollect that Chenu, in describing the late French war, said that every 1,000 horses had 4½ veterinary surgeons, while every thousand men had only two surgeons. If we succeeded in getting the dwellings of our working classes made as healthy as the cell of the felon—and surely that is not an unattainable luxury—eight years would be added to the productive ability of our working population.

I have mentioned various subjects in regard to which legislation is promised to us by the present Government, and I have no doubt of their desire to improve the condition of the people; but there is among their supporters a strong objection to increase local taxation, and without that large measures of improvement cannot be carried out. I should like, therefore, to show you by a single illustration how productive local taxation is. Sanitarians at present are inclined to believe that urban deaths need not exceed 17 in the 1,000. But let us assume, in the case of Glasgow, that its death-rate might be reduced to that of London—that is, to 22.4 in 1,000. In this case, the unnecessary and preventable deaths in Glasgow, as compared with London, are 3,817 annually. But these deaths imply a far larger number of cases of preventable sickness among the living. Statistical investigations made by Pettenkofer show us that for every case of death in public institutions for the sick there are 34 cases of serious sickness, so that the 3,817 unnecessary deaths must be multiplied by that number in order to give you the minimum cases of preventable sickness. These cases of sickness last on an average eighteen days and a half. Hence the cases of preventable serious sickness taken at only two shillings a day represent an annual cost to the city of Glasgow of £240,000. This, however, represents only a portion of the interest of money which might be well spent in paying borrowed capital for the improvement of the city. I put this for the present purposely on the mere money aspect of the question. Franklin's aphorism, "Public health is public wealth", is true even in its more vulgar meaning. Whether the saving of life of human beings, with higher hopes and aspirations than existence in the world, is to be appraised on a mere money standard, is quite another question. But my object is simply to show that, taking the smallest part of the money saving, it is obvious that money judiciously spent in sanitary improvement is not unproductive taxation, but capital bearing abundant interest.

I began by discouraging statements of our slow progress in the improvement of the country as a whole. As regards Scotland, indeed, I had to admit that the causes of deterioration are still more powerful than the means of improving the social condition of the people. If I understand my countrymen aright, the conviction of this fact will not render them hopeless, but will stir them to new exertions. Yet I would not take leave of you without pointing out that there is abundant proof that sanitary measures are producing great results when well applied. Take the case of the army, for example. About twenty years ago, if my memory serve me right, I was a commissioner of inquiry into the hygienic condition of military barracks. Then their ventilation was in a woeful condition. I spent various nights in the sleeping-rooms of the soldiers, and found all the hygienic arrangements deplorably bad. Since the Crimean war, the military authorities, aided by the excellent hygienists among the medical officers of the army, have placed the health of the army in a much more satisfactory condition, and the result is that the mortality of the army is now less than half of what it was before the war. But it is not in our army alone that such results have been produced. Formerly the deaths from sickness in campaigns were four times greater than the deaths from wounds. Every campaign now lessens the proportion, because the sanitary conditions of the soldier's life both in peace and war is much better attended to. In the last war, the German troops lost less than a third of their dead by disease, while formerly the loss had been four times that from wounds. The following figures give the deaths from disease for every hundred men lost in the campaign:—

French in the Crimean war	79
United States troops in American war ...	80
Germans in last French war	29

The small loss from disease as compared with wounds in the French war, promises much for military hygiene in future campaigns. In the Crimean war, after the sad experience among our own troops owing to defective sanitary organisation, we sent out a sanitary commission and improved the hygienic condition of our troops, while France failed to do so. And the final result, according to Chenu, is that while we lost 12 in the 1,000 of our men, France lost 155.*

Formerly the rate of mortality in the chief towns of British India, such as Calcutta and Bombay, was appalling; now, by hygienic improvements, and in spite of the tropical climate, it scarcely exceeds that of Manchester, Liverpool, and Glasgow.

If I had time, I could quote to you many cases in England where sanitary constructive works have largely reduced the mortality, but I have taxed your patience too long, and must now draw to a conclusion. I have indicated the promises of sanitary legislation which have been given to us by the present Government, but to none do I attach more importance than a reorganisation of our system of local government which the Conservatives are bound to attempt. If wisely done, its consequences may be immensely beneficial. In England, at the present time, there is a casual agglomeration of 1,500 separate sanitary authorities, without system or cohesion. Their areas of administration are diverse in the extreme, being neither bounded by counties, parishes, nor natural watersheds, and their duties are divided without meaning between authorities in the same district. They have been lately put under medical officers of health without preparation or qualifications for their duties, some well paid and devoting their time to this important work, others having little more than nominal payment and giving little more than nominal time to their important duties. Notwithstanding this too sudden and unprepared universal appointment of medical officers, yet in the administration of the Health Acts there has been recently manifested a disposition to "distrust the doctors" and to work the Acts, at least at head quarters, by lawyers and other persons not connected with the medical profession. This is the old error of making common sense the fetish for worship, which Archbishop Whately and others have so effectively condemned. Even the most fervent worshipper of common sense, as opposed to technical training, never relies on it in important emergencies of his life. He goes to the lawyer to make his will or to convey property; he consults the parson on religious doubts when on the sick bed; and he does not spurn the doctor to cure him of his grievous ailment. But it is well known that the Local Government Board are afraid of the doctors in the administration of Health Acts. Who beside them possess the knowledge? I can testify, from an experience of thirty years in sanitary work—and impartially, because I am not in the medical profession—that there is not a class of men in the country who labour so zealously for the prevention of disease as the doctors, though their training hitherto has been cure, not prevention. Certainly their private interests have never been allowed to stand in the way of their efforts to uproot disease, although their living depends upon its existence. This unselfishness in the application of their science to prevention has always been to me a source of high admiration. Why, then, is there this vulgar distrust of the doctors in the administration of our Health Acts? Extend this prejudice against technical knowledge, and how absurd it would be. Would you improve the progress of telegraphy in this country by suppressing electricians; or the law and justice of the country by putting down lawyers? Would the Secretary at War promote the conduct of war by suspecting soldiers; or the First Lord of the Admiralty the efficiency of fleets by distrusting sailors? Would our railroads and harbours be better governed if engineers were held at a discount? But this is actually the state of things at the Local Government Board—the Health Ministry of the country. The Privy Council handed over to that board Dr. Simon and his associates, with a wealth of medical experience in public hygiene. Ever since, that wealth has been locked away from public use. Certain I am that their experience could not have guided the board in the utter confusion of organisation in regard to medical officers of health. They have been appointed without any system. Some have a small parish to attend to, others have a thousand square miles. The last are appointed for combined districts, but are managed by uncombined authorities, and have neither assistants to aid them nor power to enforce their decisions. The officers of health are without any definite rule for obtaining available knowledge of prevailing sickness, even when it is treated at the public expense within their own districts; and they are not, universally at least, informed of the deaths as they occur. The medical officers of health have been appointed without any examination on their knowledge of State Medicine, and in the majority of cases they do not possess this knowledge. I am perfectly certain that this utter confusion could not have resulted had the Local Government Board consulted the experienced State medical officers belonging to them. This distrust of the doctors in higher administration is simply a general mistrust of science. And the time has now arrived when science must be trusted in government. Science is entering into the higher education of the country, and the prejudice against it among legislators, who were educated in classical universities, will in time be removed. For the progress of a country depends upon the progress of science, and the welfare of a nation is secured by the most intelligent application of science to its manufactures and to its government. The health of the country—and that governs the productive power of its people—depends as much upon the applications of medical science as the working of a machine depends upon a good application of mechanical laws. To trust the whole administration of Health Acts to Poor-law inspectors and lawyers is an amazing example of unbelief in the first principles of the laws of health. The well-being of the people depends upon physical causes, which, when intelligently understood, mean physical science, and the trained physician is the natural and most intelligent agent for extending its knowledge and application to the prevention of disease.

What we want in the future is not new law, but more efficient administration of existing law. To heap up new sanitary law on the decaying mass of indigested sanitary law which already forms a dismal agglomeration, is like the practice of our ancestors, who thought that a few clean rushes, thrown upon the corrupt mass of foul rushes on the floor, sufficed for sanitary purposes. What we want is superior organisation and efficient administration of existing law. But, in our happy-go-lucky style of government, are we likely to get it? I doubt whether it will be wise to continue the local government as a separate department of the State. Its functions, in reality, appertain to the Home Office, which, when properly organised, should divide itself into two great departments—the one dealing with police and justice, the other with the physical interests of the people. One Secretary of State might have the supreme responsibility, but each of the divisions should be scientifically administered. It would be as absurd to put a man trained in physical science at the head of the branch of police and justice, as it is to put a man merely trained in law in charge of the physical interests of the people. It is an exploded fallacy that only lawyers are good men of business, and that scientific men are not. Is my friend Sir John Lubbock a worse banker because he is an eminent man of science? Is Mr. Spottiswoode a worse printer because he has distinguished himself as a physicist? Is Mr. Warren Delarue a worse stationer because he is equally conspicuous as an astronomer and as a chemist? The local government of the country, in as far as it relates to the physical interests of the people, will remain an example of arrested development, unless science receives a recognised position in its administration. Now, the Local Government Board is drifting into the position of a large and responsible ministry dealing with the physical interests of only one portion of the people, and having no imperial object or comprehensiveness; for, though it includes England, it excludes both Scotland and Ireland.

I have already shown that the sanitary conditions of Scotland are deteriorating, while those of England are improving. The natural course of administration, then, should be to bestow upon the former even a greater portion of ministerial care and responsibility; but it receives none at all. The time may, however, arrive, when English legislators will remember that there is a certain portion of Great Britain to the north of the Tweed, and that its local government, as well as that of England, is worthy of imperial care. In questions of such imperial importance as education and public health, it is a foolish policy to treat the three parts of the kingdom by fragmentary and unconnected legislation. In relation to sanitary questions, public conscience has been recently much aroused, and will ultimately obtain attention to its calls. No doubt sanitary science, both in the abstract and in its application, is, like many other sciences, of slow growth. The crop of truths, which we are now harvesting, results mainly from seed sown by our forefathers. The seed which we ourselves may throw upon the waters will assuredly come up into a harvest, though it may not be for many days. But he who will not sow for futurity, deserves nothing from the past. It is our duty to labour for a future which we may never see, and not merely to live on the wealth of accumulated experience, as the heir of riches does when he uses them for himself alone. This Association contains many missionaries for the propagation of sanitary knowledge. Their mission is to stand between the living and the dead, and bid the plague to cease. There have been times when a Scotch professor like myself dared not have preached such doctrines in Scotland; for his countrymen once hugged the belief that pestilences were divine judgments, which ought not to be interfered with by human agency. Even then they forgot that there is far more of mercy than of wrath in all divine arrangements. Undoubtedly, pestilences are warnings that man is transgressing the beneficent laws provided for his well-being. But a god of wrath and pestilence is now a god of the heathen, not of the Christian. That ought to have been understood long ago. The prophet heard the wind which clave the rocks, but the voice of God was not in the wind. He felt the earthquake which shook the world, but the voice of God was not in the earthquake. He saw the fire, as it pursued its track of desolation, but the voice of God was not in the fire. It was only after these terrors had passed away that the prophet heard the voice of God as a still small voice. That whispers to us still; not in plagues and pestilences, but, when these dangers have passed, as an ever-present voice in all the ordinary occurrences of our lives. It tells us of the beneficent wisdom which regulates all the laws of creation, made for our well-being, and not for our destruction. It is by disobedience to them that we are punished by 125,000 persons being unnecessarily cut off every year in this country. Our own acts produce those demons of destruction which the Jews of old credited with the slaughter of the people; and by our own acts we can convert them into preserving angels. I think it is in the epilogue to the *Honest Man of Fortune* that Beaumont and Fletcher thus describe our responsibilities for what befalls us:

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* In the Crimean war, 95,000 French died—75,000 from sickness and 20,000 from wounds. In the American war, the United States troops lost 42,010 men from sickness and 10,142 from wounds. In the late French war, the Germans lost altogether 40,881 men, of whom only 12,253 died from sickness.

> "Our Acts our angels are, or good or ill,
> Our fatal shadows that walk by us still."

The object of the health section of this Association is to show our countrymen how this sacrifice of preventable deaths may be avoided. That number of deaths imply more than four million two hundred thousand cases of preventable sickness. It is upon these that we must operate, by rooting out the causes which produce them. I began by drawing your attention to the death-rates of the country. These have been derived from the excellent system of death-registration which we now possess. But there is another system of registration which it would be important to add to our sanitary records—the registration of sickness. Registration of deaths represents the wrecks which strew the shore, while that of sickness would tell us of the coming storms and enable us to trim our vessels to meet them. Till we have such a system of disease-registration, public health cannot be administered with full intelligence. We must not forget that the function of the sanitarian is prevention. His function begins and ends before man reaches his final state of decay, "or ever the silver cord be loosed or the golden bowl broken...or the wheel be broken at the cistern". When this wheel, or circulation of the blood, is broken, a new and a great wheel begins, involving in its rotation all organic and inorganic matter. In this there is the highest example to us of hygienic organisation. You know how the waste of animals during life, and of their bodies after death, passes into the gaseous forms of carbonic acid, water, and ammonia. These substances form the aërial food of plants, which, in fixing and moulding some of their constituents into new forms of organic life, purify the atmosphere of its noxious products, and restore the life-giving oxygen abstracted in the respiration of animals. Thus plants convert the foul products of animals into new food necessary for their growth and development. The great and abounding air into which passes all the foulness of the living, and all the putrid products of the dead, becomes at once the grave of organic death and the cradle of organic life. In this wonderful circle death and life rapidly appear in correlation; and past generations of animals, by a process of dissolution, produce living generations by a process of evolution. All this is in the harmony of nature, without jar or disturbance. We should strive, in our hygienic efforts, to take part in this great circle, without vainly attempting either by ignorance or by design to mar such wonderfully conceived plans for preserving the world in purity and sanity.

PROMOTION IN THE INDIAN ARMY.—Under the authority of the Secretary of State for India, it is notified that, although a certain period of regimental service is not required by the Royal Warrant of July 1st, 1873, as a necessary qualification for promotion to the administrative grade of the Medical Department, it will still rest with the Government of India to select for promotion to that grade officers possessing sufficient regimental experience to enable them to exercise supervision over military hospitals and regimental military staffs.

INTRODUCTORY ADDRESS
ON
UNIVERSITY AND MEDICAL TEACHING.

Delivered at the opening of the Medical Department of Owens College, Manchester.

By THOMAS H. HUXLEY, LL.D., F.R.S.,
Professor of Natural History in the Royal School of Mines.

MY first business to-day is to declare that the medical school which has now for some years been in course of erection, is formally opened, and ready for the work which will, I hope, for a very long series of years be successfully continued in it. I am very proud to be made the medium of this declaration to-day, and I might, perhaps, express my regret that official engagements, from which I could not free myself, prevented me from being present this time last year, when the magnificent buildings which I have seen to-day for the first time were formally opened by his Grace the Duke of Devonshire. Indeed, an occasion of that kind, and an inauguration such as took place last October, was one at which any man having the interests of so great a section of Her Majesty's dominions as Lancashire at heart might have been glad to be present; for although in name you professed only to have established a College, that which you practically did then was to lay the foundation of a great university for Lancashire. If you look into the origin of universities, you will find that it was no part of the original constitution of an university to be endowed with rich fellowships, or even the possession and power of granting degrees. Those admirable men originally associated themselves together for the purpose of forming corporations which were called universities, and they were impelled by a desire to learn and to teach, without caring more for the future fate of their learning and teaching than what might be necessary for securing the full efficiency of that learning and teaching. It was only subsequently that the power of granting degrees became conferred upon them, or, perhaps I should more accurately say, at first associated with them.

I find that, like the older universities, this body has practically divided itself into departments, which in the case of the older universities were true faculties, but are here known by the more modest name of departments. You have a department of arts, a department of law, a department of science, and a department of medicine; and this classification of the departments into which you have spontaneously divided yourselves, when contrasted with that which existed early in the history of the older universities, is in itself a striking indication of the times; and the present state of affairs differed from what would naturally have arisen in older times by the absence of something and by the presence of something. It would be wholly needless and undesirable for me to dilate upon the reasons which have led to this remarkable difference; they are patent and obvious to everybody; nor will I for a moment dwell upon what considerations might be urged to show that the difference which now exists is possibly not an essential and not a desirable one. On that point ideas vary. But I congratulate you upon having made this great step, and I congratulate Lancashire upon having seen that her highest interests are bound up not only with the elementary education of the people, but with the higher education of the upper and those classes which are more accustomed to depend upon their intellectual and less upon their manual labour. And I congratulate you upon having done so great a work and by your own spontaneous efforts. The sum that has been raised for the establishment of this College is perhaps not vast in relation to the enormous wealth of Lancashire, but it is a great sum; and let us hope that those who possessed that enormous wealth, when they considered what this College is doing, what a great work it is performing, what most beneficial results will certainly accrue from its efforts in the future, that they would understand that, although they were giving liberally, it is only a forecast of that which is to come.

I notice in these donations, and in these sums of money subscribed for the purpose of building and endowing and providing with scholarships this great institution, what appears to me to be a peculiar feature; at least I know nothing exactly like it anywhere else; and, as it appears to me to be a feature of great importance and one which is desirable to be imitated as fast as possible by other educational bodies, you will pardon me if I dilate upon it for a short time. You have two scholarships which differ from the ordinary scholarships in this, that they are rewards not merely for learning, and not merely for careful attention and diligent study of that which the student may learn in the lecture-room or from books, but they are rewards which are given to those who exhibit in some degree that most valuable and most important of all intellectual gifts, the power of advancing truth by the pursuit of original research. I refer to the Dalton scholarship and the Platt scholarship. I can conceive no object more important at the present time than that of encouraging original research in science; and the way of doing it, without at the same time doing more harm than good, is one which has come very seriously under my consideration as one of the royal commissioners for the advancement of science. I earnestly wish that we could look elsewhere to the solution of that problem by means analogous to those adopted here—I mean to say by private benefactors coming forward with their endowments, which endowments should benefit those only who are engaged in original research. But the introduction of scholarships of that kind into the early life of young men, when it is so important that their attention should be directed to original research, is a new feature in this institution; and permit me to say, however important in other respects, I am not sure that it is not one of the most important of its features.

I may now pass on to say a few words respecting the organisation of the several departments of instruction and learning into which the working power and teaching power of your institution has separated itself; and here allow me to say, that I do not propose to step for one instant beyond my last. Your Faculty of Arts speaks for itself; the distinction of many of its members, and the fact that they are authors of works well known and esteemed all over England and wherever the English language is read, is sufficient to give that faculty a high position. It certainly would not become me to speak of its operations as if I were a judge of them in any way whatever; but I may be allowed, as a person whose pursuits lie elsewhere, and who has the misfortune to be accused sometimes of seeing no merit and desert in anything but his own pursuits—allow me to say, that I trust that the position of the Arts Faculty in this institution will never, by a hair's breadth or shadow, be diminished; but that a sound and thorough training in literature and general knowledge will be regarded henceforward, as very properly it is now, as the essential foundation in the intellectual life of every educated man; and let me say, that to no person is such education and such training of greater importance than to us who are called men of science. Our occupations are very engrossing, and they can be pursued with success only by the intensest stress and attention; and we are obliged even to limit ourselves to particular fractions and particular portions of our own study if we are to make any advance therein; and, unless we have the good fortune to be trained in early youth to take a broad and general view of the interests of human nature, unless our tastes are disciplined and refined, and unless we are led to see that we are citizens and men before anything else, I say it will go very hardly indeed with men of science in future generations, and they will run the risk of becoming scientific pedants when they should be men, philosophers, and good citizens. Still less, if possible, can I have anything to say respecting the Faculty of Law; but, as regards that of Science, by which, of course, is understood physical science, I can only express my unmeasured satisfaction at the completeness—I may almost say magnificence—of the arrangements provided for the teaching of this subject in this institution. The laboratory of my friend the professor of Chemistry has, I take it, few parallels; and, if the laboratory of my friend the professor of Physics be not so complete, I am sure it is far better than nine-tenths of such laboratories, and I am certain that those benefactions at which I was looking just now will before long enable him to put his establishment on the same footing as to completeness and magnificence as that of his colleague of Chemistry. I understand—indeed, I know very well, knowing how much my distinguished friend Professor Roscoe has been in this institution—that he had, I believe, the advantage of being on the spot when the building went on; and, although I am sure he is the last man to take any more than his own share, somehow he has got a good deal.

But now I come to that which is my proper subject to-day, and that is our medical school. I have not seen, in the course of my experience—I say it deliberately—I have not met with any more efficiently organised institution than you have within the four walls of that medical school. I have some acquaintance with such institutions and their interests; and I undertake to say, that you will not find better constructed appliances for the teaching of those branches of science which relate to medicine than you will find in that school. Everything has been very carefully considered, and everything has been done which the idea of convenience could suggest, or which the notion of efficiency requires to have carried out; and I should like particularly to address myself to that particular corner over there, and to say to those gentlemen, whose strong lungs I admire much, that, if they do not apply those equally strong Lancashire brains in becoming first-rate medical men, it will not be the fault of the institution or the fault of their teachers, but their own most assuredly. I recollect in former days, when I was an examiner in the University of London, the Manchester medical school of that day used to send up exceedingly well prepared men; and, if that was done with the means and appliances then existing, although no longer an examiner, I expect to see the list of the University of London crowded with successful men from Manchester in future times. I am sure, addressing myself rather to the lay portion of my audience, it may astonish many, and puzzle them somewhat, to know why so elaborate an apparatus is needed for the teaching of medicine, and why men require to spend so long a period of arduous study in that most important of pursuits. I believe this surprise arises from the prevalence in the general mind of the notion which was once exceedingly common in the philosophical mind—I mean this, that the human body in general is dependent upon forces and powers which were altogether different from those we find working in other kinds of matter. It is not two hundred years since the notion existed that the vital processes of the body were subject to some demon who kept the body straight, I suppose when in good temper, and let it go wrong when out of sorts; and, when it was gravely supposed that there was a broad gulf between the phenomena of inorganic nature and those of life. Now let me say this, that the whole of our modern scientific study of medicine depends upon precisely the contrary assumption—upon the assumption that the living body is a mechanism infinitely more refined, and infinitely more difficult to understand, than our coarse human machinery; but still the mechanism of it is governed by rules and laws which can be discovered, and which can be applied and reasoned from, in order to understand its processes. Modern medicine, in fact, is a kind of engineering. It is the attempt to understand the machinery of the body, for the purpose of being able to put it right when it goes wrong. I have seen in your great factories in Manchester some of those astonishing complicated pieces of machinery which seem almost endowed with life, by which the products which make Manchester so famous are produced. Let me put before you the case of the possessor of one of those machines, who, finding that it has gone wrong and that it will not work properly, finds himself, as Sir Robert Peel would say, with three courses open to him: either that he might sit down and hope that it would get better, and, perhaps, even offer up his prayers that it might get better; or that he should send to the nearest blacksmith and tell him to bring his hammer and bottle of oil, and tap here, or oil there, in the chance of setting the machine right; or should, thirdly, send for some skilled and experienced mechanic who, from long study and familiarity with it, would be able to judge by the mode of action where it was wrong, and be able to put his finger on the part which was broken or injured, and thus be able to set it right. Now the human body is a machinery which, in complexity, stands to the spinning-jenny in the same relation as the spinning-jenny stands to a child's windmill. But it stands by the same laws, and those who have to deal with it must be guided by the same reasoning. Sickness is the going wrong of the machinery. Death is the destruction of part of the machinery; and the only way in which that machinery can be set right, if it go wrong, is not by sitting down and hoping for it, is not by sending for the first blacksmith, who will administer his purge here and his bleeding there, and who is what we call a "quack"; I mean a person who is really ignorant of that with which he is dealing, and who yet, nevertheless, presumes to meddle with it. That is the essence of quackery. Or, thirdly, we must send our skilled engineer, who, by the help of what he calls symptoms, finds out what wheel is out of place, what cog is broken, and, by his previous knowledge of therapeutics and remedies, knows in what way it is possible to get this erring wheel or broken pinion into its place again. And it is in order that we may have such skilled engineers to the body that all this great apparatus, which you see erected here, and all this long period of study is carried out.

I do not know anything which strikes me more forcibly than the progress which this kind of knowledge has made within the last thirty or forty years. I find that your medical school in Manchester was first founded mainly, I understand, by the zeal and energy of a memorable man now no more—Mr. Turner—whose acquaintance I had the pleasure of making many years ago, aided by his *fidus Achates*, Mr. Hunt, who is also, I believe, deceased. I understand the first medical school in Manchester was founded in the year 1824. I happen to remember that date for a very simple reason, that, inasmuch as the school was founded in 1824, it is as nearly as possible six months older than I am. It is something astounding to know what progress has been made since that time. I happened to take up to-day the syllabus of your sessional work here, and I turn, not unnaturally, to the class of Practical Physiology and Histology, and, on looking over the various doings of this course of instruction, it struck me that, thirty years ago, when I began my medical studies, there certainly was nobody in London—nay, nobody in the world—who could have given you this course of instruction. We had not the instruments which are requisite to carry it out. The whole course of medical study since that time has been completely changed—by, in the first place, discoveries made by the use of the microscope, and, in the second place, by that application of delicate instruments to the illustration of the mechanism of the body, which is the very essence and a great part of modern physiology. At that time, even organic chemistry was hardly in existence. We used to use, when I was a student, what was called Turner's *Chemistry*. It is this recognition of the fact, that the study of life is essentially a question of applied physics and chemistry. That is what has changed the whole course of our medical studies. It is that which makes that elaborate appliance necessary, and that you who commence your medical studies should come prepared with the outlines of physics and chemistry as your foundations. One of the greatest reasons of the backwardness in medical study is, that those who come to study are, by reason of the lamentable defects of their common school education, utterly unprovided with a knowledge of what those physical studies mean.

I do not think it would be needful for me to detain you longer. The subject is a tempting one, and I might be disposed to enlarge still more upon the advantages which you who are now commencing your career have over those who are thirty or forty years older than yourselves. Though not enlarging upon these advantages at still greater length, if it were possible that I could stamp upon your minds as firmly and as strongly as it is burnt into my own, that all these appliances, and all these mechanical aids for the study of medicine, are simply thrown away unless they have the foundation of human hard work and clear-headedness to go upon. You have before you probably that which is the most responsible of all human careers. It is hard for you not to realise that. It is hard for you, curbing the hot blood of youth, to understand what issues may depend upon your present career; but depend upon it, exactly in proportion as you make use of these advantages, as you feel the burden of your responsibilities, as you acquire that knowledge which was essential for you, so will your lives in the future be passed in the satisfaction of well merited renown, or in the misery of a violated conscience.

A CASE OF POISONING BY MUSHROOMS.

By JAMES SEDGWICK, M.R.C.S., Boroughbridge.

THE following case of poisoning by mushrooms appears sufficiently severe, and probably rare, in the early advent of tetanic muscular spasm, as to demand a short notice from me, more especially as such symptoms, I find, have only been very seldom seen, and then in fatal cases.

About 6.15 P.M. one day in August 1874, T. F., when in perfect health, partook of about eight or ten carefully chosen small young mushrooms; after which, he took a walk round his farm, retired to bed about 11 P.M., feeling perfectly well, and not in the slightest degree suspicious that the mushrooms could be poisonous, and entirely ignorant of any of the symptoms of poisoning by fungi.

About 1.30 A.M., when I first saw my patient, I found him supported by his nurses, walking in the open air. He said he felt so sleepy, and had been obliged to leave his bed and room, because he could only breathe with very great difficulty. He added that, after sleeping until 12.15, he awoke suddenly with spasmodic twitching in his hands and arms, soon followed by a suffocative feeling; so much so, that he felt he should die from it. This necessitated his removal to the open air; and a glass of brandy and water was given.

At 1.30 A.M., he was drowsy, and not quite collected; said he felt as if he should soon be delirous; but both tetanic muscular spasm and dyspnœa had subsided. Pupils somewhat inactive; pulse regular. I at once emptied the stomach twice by emetics, and then gave an aperient. The vomited matter contained several mushrooms, very probably all that had been taken; and, though six hours had elapsed since the meal of mushrooms had been eaten, very little could have passed the stomach. Great relief followed the action of the emetics. He had no return of discomfort, except a feeble digestion, and for a few days a feeling in his arms which he described as similar to that caused by riding an unruly pulling horse for a day.

REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

BY JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

II.—ANTAGONISM BETWEEN SULPHATE OF ATROPIA AND CALABAR BEAN.

WHEN the Committee commenced their investigations into this subject, the antagonism had already been indicated by Dr. Fraser. It was resolved, however, to determine the question with exactitude. Subsequently, a very lengthened inquiry was published by Dr. Fraser,* with whose general results those of the Committee coincide.

The preparation of Calabar bean employed was in the form of an alcoholic extract made by Dr. Cook, formerly of the firm of Messrs. T. and H. Smith of Edinburgh, now residing in Liverpool. It was prepared as follows. The powdered beans were acted upon with spirit of specific gravity .830, at 60 deg. Fahr., until the powder was exhausted. The clear solution thus obtained was evaporated in a vacuum of twenty-six inches until the spirit was entirely removed. To the residue thus prepared, three ounces of water were added, and the whole was heated gently. The residue was partly dissolved, leaving some oily matter floating on the surface. This mixture was filtered, and a fluid obtained, one ounce of which represented four ounces and a half of Calabar bean; or, in other words, twenty eight grains of the extract free from oil were present in each ounce.

Numerous experiments were made on rabbits and on rats.

A. *Experiments on Rabbits.*

TABLE IX.—*Showing Effects of a Minimum Fatal Dose of the Extract of Calabar Bean on Rabbits.*

No.	Weight of Rabbit.	Dose of grains.	Result.
116	3 lbs. 8 oz.	¼	Died in 1 hour 40 minutes
117	3 lbs. 8 oz.	½	Died in 12 minutes
118	3 lbs. 12 oz.	½	Recovered; ill nearly 24 hours
119	3 lbs. 12 oz.	1½	Died in 7 minutes
120	4 lbs.	½	Died in 19 minutes
121	4 lbs. 1 oz.	1½	Died in 8 minutes
122	4 lbs. 2 oz.	¼	Recovered; very ill 6 hours
123	4 lbs. 4 oz.	¾	Died in 6 minutes
124	3 lbs. 6 oz.	¾	Died in 29 minutes
125	4 lbs.	½	Recovered after severe illness
126	3 lbs. 8 oz.	¾	Died in 31 minutes
127	3 lbs. 7½ oz.	½	Recovered after severe illness

Taking into account the relative weights of these rabbits, it was concluded that three-quarters of a grain of extract of Calabar bean for every three pounds weight of rabbit was the minimum fatal dose of the extract employed; and it is so understood in all the investigations on the supposed antagonistic properties of other substances to Calabar bean. The minimum fatal dose of the extract prepared by Dr. Fraser was 1.2 grains for every three pounds weight of animal; but he states (p. 575) "that the lethal activity of this extract" [the extract given him by Dr. Cook] "is considerably greater than that of the extract prepared by myself".

The symptoms following the subcutaneous injection of three-quarters of a grain of this extract into a rabbit were as follows.

Experiment 126.—Male rabbit, weighing 3 lbs. 8 ounces. Three-fourths of a grain of extract of Calabar bean, dissolved in ten minims of water, were injected under the skin of the back. In a minute and a half, there were slight twitchings of the skin. In three minutes, the breathing became very hurried, and the animal seemed to be distressed. Saliva now accumulated profusely in the mouth. In two minutes more, the animal rested on its abdomen and chest, and spread out its legs, which were stiff. It attempted to regain its natural position, but in vain. The pupils were now contracted from 7-25ths (their diameter before the experiment) to 3-25ths of an inch. Soft diffluent fæces were passed. At the end of eighteen minutes from the time of the introduction of the poison, the animal was lying on its side. The respirations were much laboured. It remained in this condition for thirteen minutes more, with severe occasional muscular tremors, when it died—that is, thirty-one minutes after receiving the three-fourths of a grain of the extract. In one case (Experiment 123), the animal died from three-fourths of a grain in six minutes; but it was found that this dose usually destroyed life in from twenty-five to thirty-four minutes.

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* *Proceedings of the Royal Society of Edinburgh*, 1868-69, pp. 587-590. See also the *Practitioner* for February 1870; and an elaborate paper in the *Transactions of the Royal Society of Edinburgh*, vol. xxvi, part iii, for the session 1870-71.

Minimum Fatal Dose of Sulphate of Atropia for Rabbits.

This was investigated before the appearance of Dr. Fraser's elaborate paper in the *Transactions of the Royal Society*, but subsequently to the preliminary note. The results are seen in the following table.

TABLE X.—*Showing Effects of a Minimum Fatal Dose of Sulphate of Atropia on Rabbits.*

No.	Weight of Rabbit.	Dose in grains.	Result.	No.	Weight of Rabbit.	Dose in grains.	Result.
128	4 lbs. 12 oz.	1	No apparent effect	138	3 lbs. 6 oz.	10	Recovered
129	3 lbs.	4¼	Recovered	139	3 lbs. 4 oz.	11	,,
130	2 lbs. 12 oz.	3	,,	140	3 lbs. 4 oz.	12	,,
131	3 lbs.	4	,,	141	3 lbs. 4½ oz.	14	,,
132	4 lbs.	5	,,	142	3 lbs. 9 oz.	16	,,
133	3 lbs. 8 oz.	6	Died in 17 min.	143	3 lbs. 8 oz.	18	,,
134	3 lbs. 6 oz.	6	Recovered	144	3 lbs. 8 oz.	20	Died in 50 min.
135	3 lbs. 9 oz.	6	,,	145	3 lbs. ½ oz.	21	Died in 36 min.
136	3 lbs. 6½ oz.	8	,,	146	3 lbs.	21	Died in 34 min.
137	4 lbs.	9	,,	147	3 lbs.	21	Died in 33 min.

This table indicates that the minimum fatal dose of sulphate of atropia for a rabbit is about twenty or twenty-one grains. In one instance (No. 133), the animal died in seventeen minutes from a dose of six grains. This must have been in some way exceptional, although it cannot be stated in what way it was so, because many rabbits recovered from larger doses.

The effects of sulphate of atropia on rabbits were as follows. Up to four or four-and-a-half grains, no symptoms whatever could be observed. From four to six grains, there occurred dilatation of the pupil; uneasiness, as manifested by the rabbit moving restlessly about; respirations reduced; and the cardiac impulses were accelerated in number. From six to fourteen grains, in addition to the symptoms noted above, there were, paralysis, more marked in larger than in smaller doses; slight quivering of special groups of muscles; violent starts of the whole body; and a drowsy condition. From fourteen grains to twenty-one grains—the minimum fatal dose—in addition to the foregoing symptoms, there were increasing paralysis, and the respirations were reduced both in number and in depth. The animals died, in those cases in which fatal doses had been given, with severe spasmodic convulsive starts and twitchings. The action of the heart, and the depth and frequency of the respiratory movements, decreased until life was extinct.

After having ascertained the fatal doses of extract of Calabar bean and of sulphate of atropia, the action of the one on the other was next investigated.

TABLE XI.—*Showing First Series of Experiments on the Effects of Calabar Bean Extract and Sulphate of Atropia.*

No.	Weight of Rabbit.	Dose of Sulphate of Atropia in grains.	Dose of Extract of Calabar Bean in grains.	Result.	Remarks.
148	3 lbs. 8 oz.	½	1	Survived for 5 days	Ill for 24 hours; died on 5th day
149	3 lbs. 12 oz.	½	2	Died in 14 minutes	Severe convulsions
150	3 lbs. 4 oz.	2	2	Died in 45 minutes	Convulsions; not so severe as in No. 149
151	4 lbs.	1½	1½	Died in 62 minutes	Ditto, ditto
152	6 lbs.	4½	1½	Died in 25 minutes	Severe convulsions
153	3 lbs. 4 oz.	1½	1½	Died in 30 minutes	Convulsions; not severe
154	5 lbs.	3	1½	Died in 17 minutes	Slight convulsions; died very suddenly

It will be observed from this table that, in one case (No. 148), the rabbit survived for five days. It was very ill for twenty-four hours; it then apparently became well; but on the fourth day it showed no inclination to take food, and on the morning of the fifth day it was found dead in its box. All the other cases died in periods varying from fourteen to sixty-two minutes after receiving the injection of Calabar bean extract. In every case, life was prolonged by the use of the atropia, and the symptoms were modified. This will be seen by comparing the following additional experiments.

TABLE XII.—*Shewing that after Fatal Doses of Calabar Bean Extract the Subcutaneous Injection of Sulphate of Atropia prolongs Life.*

EXTRACT OF CALABAR BEAN ALONE.				EXTRACT FOLLOWED BY SULPH. OF ATROPIA.				
No.	Weight of Rabbit.	Dose in grains.	Result.	No.	Weight of Rabbit.	Dose in grains.		Result.
						C. B.	S. A.	
155	3 lbs. 6 oz.	1½	Death in 8 min.	156	3 lbs. 5½ oz.	1½	½	Death in 34 m.
157	3 lbs. 8 oz.	1½	Death in 7 min.	157*a*	3 lbs. 7 oz.	1½	½	,, 40 m.
158	3 lbs. 7 oz.	1½	Death in 8 min.	159	3 lbs. 7 oz.	1½	½	,, 36 m.
160	3 lbs. 5 oz.	1½	Death in 9 min.	161	3 lbs. 4½ oz.	1½	¾	,, 100 m.
162	4 lbs.	1½	Death in 16 min.	163	3 lbs. 14 oz.	1½	¾	,, 110 m.
164	3 lbs. 10 oz.	1½	Death in 9 min.	165	3 lbs. 9 oz.	1½	1	,, 29 m.
166	3 lbs. 9 oz.	1½	Death in 9 min.	167	3 lbs. 10 oz.	1½	1¼	,, 31 m.

In none of these cases was life preserved, although it was evidently much prolonged by the action of the sulphate of atropia. As the dose of extract of Calabar bean was double the amount of the minimum fatal dose, it was determined to make another set of experiments, in which a smaller dose of extract of Calabar bean was employed. The results are as follows.

TABLE XIII.—*Showing the Influence of Sulphate of Atropia on Minimum Fatal Doses of Extract of Calabar Bean.*

No.	Weight of Rabbit.	Dose in Extract of Calabar Bean.	Grains Sulphate of Atropia.	Result.	Remarks.
168	3 lbs. 10 oz.	¾	½	Died in 40 hours	During all this time very ill
169	3 lbs. 9 oz.	¾	¾	Recovered	Killed on sixth day with same dose of C. B. extract in 10 minutes
170	3 lbs. 12 oz.	¾	¾	,,	Ditto, ditto, in 7 minutes
171	3 lbs. 11 oz.	1	½	Died in 90 min.	Symptoms of C. B. poisoning modified, but animal very ill
172	3 lbs. 12 oz.	¾	½	Died in 3 hours	
173	3 lbs. 14 oz.	½	½	Recovered	Recovered from same dose of C. B extract given 8 days afterwards
174	3 lbs. 9 oz.	⅔	½	,,	Recovered, ditto, ditto
175	3 lbs. 10 oz.	¾	¾	,,	Died with same dose of C. B. extract 9 days afterwards in 12 minutes
176	3 lbs. 12 oz.	¾	¾	,,	Recovered after very severe illness
177	3 lbs. 12 oz.	1	¾	Died in 40 min.	

An analysis of these cases shows that sulphate of atropia prolongs life, and may even save it, after a fatal dose of extract of Calabar bean. In those cases of recovery from a fatal dose of Calabar bean, the animals were for many hours very ill. They were prostrate, and had frequently severe tremors. To favour the chance of recovery, it was found necessary to keep them warm, and to save them from being annoyed by other rabbits. The doses given to Nos. 173 and 174 were evidently not fatal ones, as the animals recovered from the same doses of Calabar bean extract, without the use of sulphate of atropia, given eight days after the first experiment. It will be observed, also, that No. 176 recovered in the second experiment from a minimum fatal dose of Calabar bean extract nine days after the first experiment. As it appears to be impossible to account for this fact, it is better to reject this experiment. Still we have three cases—Experiments 169, 170, and 175—in which the animals recovered in the first instances from the effects of doses of extract of Calabar bean, as modified by the action of sulphate of atropia, which, given alone some days afterwards, killed in from seven to twelve minutes. In the case of No. 177, too large a dose of extract of Calabar bean was evidently given; but, even in this case, life was much prolonged, seeing that the animal survived forty minutes, when it probably would have died from the same dose of extract of Calabar bean, without the counteracting influence of sulphate of atropia, in from eight to twelve minutes.

It is evident that the antagonistic influence of sulphate of atropia on the effects of extract of Calabar bean is not nearly so well marked as that of chloral hydrate as an antagonist to the effects of strychnia. Even after the introduction of sulphate of atropia, the symptoms produced by the previously injected extract of Calabar bean continue to be well marked. The animal seems to be extremely ill. There are salivation, twitchings of the muscles, and perhaps slight convulsions. This state of things may continue for several hours, and the animal slowly recovers. In the case of strychnia and hydrate of chloral, if the animal be kept undisturbed, it may not exhibit a single indication of the presence of the strychnia, and it becomes roused from the effects of the hydrate of chloral as if it had received it alone.[*]

The experiments made on rabbits clearly show that sulphate of atropia does antagonise fatal doses of extract of Calabar bean, but within a very limited area.

B. *Experiments on Rats.*

Fifty experiments were made on rats with reference to the question of the antagonism between extract of Calabar bean and sulphate of atropia. They were pursued in the same order as in the case of rabbits. In the first instance, the minimum fatal dose of each substance was determined, and then several crucial experiments were made. The results are to be seen in the following tables.

TABLE XIV.—*Showing Minimum Fatal Dose of Extract of Calabar Bean for a Rat of average size* (10 *oz.*)

No.	Weight of Rat in oz.	Dose in grains.	Result.	No.	Weight of Rat in oz.	Dose in graius.	Result.
179	9	1-64th	Recovered	189	10½	1-10th	Died in 14 min.
180	8	1-32ud	,,	190	10	1-12th	Died in 15 min.
181	8	1-20th	,,	191	10	1-16th	Died in 24 min.
182	8½	1-18th	,,	192	9¾	1-16th	Died in 21 min.
183	8	1-16th	Died in 20 min.	193	9¾	1-18th	Recovered
184	9	1-12th	Died iu 17 min.	194	8¾	1-20th	,,
185	10	1-8th	Died in 15 min.	195	8½	1-21st	,,
186	10½	1-4th	Died in 12 min.	196	10½	1-24th	,,
187	10½	1-3rd	Died in 5 min.	197	10	1-16th	Died in 23 min.
188	10½	2-3rds	Died in 4 min.	198	10	1-18th	Recovered

From these experiments, it was determined that the minimum fatal dose for a rat of extract of Calabar bean was nearly one sixteenth of a grain. The minimum fatal dose for a rat of sulphate of atropia was then ascertained. The results are as follows.

TABLE XV.—*Showing the Minimum Fatal Dose of Sulphate of Atropia for a Rat of average size* (10 *oz.*)

No.	Weight of Rat in oz.	Dose in grains.	Result.	No.	Weight of Rat in oz.	Dose in grains.	Result.
199	9½	½	No apparent effect	211	9	3⅔	Ditto
200	10	⅔	Ditto	212	10	3¾	Ditto
201	9¾	4-5ths	Ditto	213	10¼	3 5-6ths	Ditto
202	11	5-6ths	Ditto	214	10	4	Ditto
203	10	1	Ditto	215	10	4½	Ditto; spasms
204	11¼	1¼	Ditto	216	10¼	5	Ditto; spasms; excitement
205	10	1¾	Ditto	217	10	5½	Ditto, ditto, ditto; strong convulsions; died in 6 minutes
206	10	1⅔	Drowsiness				
207	10½	2	Ditto				
208	8¾	2½	Ditto				
209	9½	3	Ditto; slight tremors	218	10½	5½	Died iu 12 min. with same symptoms
210	9	3½	Ditto, ditto; dilatation of pupil				

It was evident from these experiments that the minimum fatal dose of sulphate of atropia for rats was about from five to five-and-a-half grains.

Having ascertained the minimum fatal dose of each substance, ten crucial experiments were now made, in which the question of antagonism was tried. The results of these are detailed in the following table.

TABLE XVI.—*Showing the Influence of Sulphate of Atropia on the Minimum Fatal Dose of Extract of Calabar Bean in Rats.*

No.	Weight of Rat in oz.	Dose in grains.		Result.	Remarks.
		Cal. B. extract.	Sulph. of Atropia.		
219	10	1-16th	1	Survived for 30 hrs.	The same dose un-antagonised would probably have killed it in 15 to 20 min.
220	10½	1-20th	1¼	Recovered	Not evidently a fatal dose, as it recovered 5 days thereafter from same dose
221	10½	1-14th	1	,,	Killed 5 days afterwards in 36 minutes by same dose
222	10¾	1-12th	1½	Died in 37m.	Life prolonged by sulphate of atropia
223	9¾	1-10th	¾	Died in 20m.	Ditto
224	8	1-8th	1	Died in 18m.	Ditto
225	9½	1-16th	⅔	Survived for 17 h.	This animal was very Ill; died from congestion of lungs
226	9¼	,,	1	Recovered	Killed by same dose 7 days afterwards in 22 minutes
227	10	1-18th	1 1-6th	,,	Recovered again after same dose in 10 days; evidently non-fatal.
228	10	1-17th	1 1-10th	Recovered; very ill 6h.	Died 5 days afterwards in 3 hours from same dose; a weakly rat

The above table shows that, as is the casc in rabbits, sulphate of atropia antagonises the action of extract of Calabar bean, but that the area of antagonism is very limited. In all of the above experiments, the extract of Calabar bean was first injected in solution, and was followed immediately afterwards by sulphate of atropia. It is to be observed that, in Nos. 221 and 226, the animal recovered from a fatal dose of extract of Calabar bean by the action of sulphate of atropia; and that the same dose of extract of Calabar bean destroyed life in from twenty-two to thirty-six minutes when given to the same animals several days after the first experiment.

General Conclusions regarding the Antagonism between Sulphate of Atropia and Extract of Calabar Bean.

1. Sulphate of atropia antagonises to a certain extent the fatal action of Calabar bean.

2. The area of antagonism is even more limited than Dr. Fraser has indicated in his paper already referred to.

In all the experiments made in connection with this branch of the inquiry, it was found that so-called antagonism existed within very narrow limits. The danger was, not death by too great a dose of sulphate of atropia, the supposed antagonist, but death from the effects of the extract of Calabar bean. In this respect, there was also a marked contrast to the action of hydrate of chloral on the physiological effects of strychnia. In the latter instance, the danger evidently would be, in a case of poisoning by strychnia, to give too large a dose of hydrate of chloral; whereas, in the case of poisoning by extract of Calabar bean, it would apparently be very difficult to arrest its effects by sulphate of atropia, because a small dose of the latter produces little effect (at all events in rabbits), and the effects of the extract of Calabar bean are so violent as soon to destroy life. It results that, for all practical purposes, atropia, as an antidote to Calabar bean, is useless, and not to be compared with the effects of chloral hydrate, as shown by the Committee under the next head.

[*To be continued.*]

SODA-WATER.—WE take the following report from the *Pharmaceutical Abstract and Review*. At Longton Police Court, before Mr. H. C. Greenwood, stipendiary, on September 6th, Mr. S. Taylor, soda-water manufacturer, Longton, was charged with selling half a dozen bottles of adulterated soda-water, on the information of Captain Knight, the food-inspector. The point raised was, whether the soda-water could be said to be adulterated by its being devoid of bicarbonate of soda, and thus depriving the customer of the benefit to be derived from the active ingredient which it should have contained. The county analyst had certified that in this particular case the water analysed was devoid of the smallest particle of soda, and only contained water and carbonic acid gas. The wife of the maker swore that, he being busy, she herself superintended putting the soda into the bottles, and that each bottle contained the required quantity. The informations were dismissed; the stipendiary deciding that the Act did not apply in this case; and that, to adulterate, there must be an addition to, but here there was a taking from, alleged by the prosecution. A case was asked for by Mr. Fulford, counsel for the prosecution, and granted.

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[*] It is to be noticed that Dr. Fraser quotes the following experiments made with the extract supplied to him by Dr. Cook.

Dr. Fraser's paper, p. 579, *Edinburgh Royal Society Trans.*, vol. xxvi.—"Experiment 57 (*a*). A rabbit, weighing 3 lbs. 8 oz., received two grains of extract of physostigma, prepared by Dr. Cook, and, one minute and thirty seconds afterwards, 0.5 grain of sulphate of atropia. Recovery took place.—Experiment 57 (*b*). Nine days afterwards, the same rabbit, now weighing 3 lbs. 8½ oz., received one grain of extract of physostigma, prepared by Dr. Cook. Death occurred in thirteen minutes and thirty seconds."

Dr. Fraser also observes (p. 575), referring to Experiment 57 (*b*): "The second portion of the experiment shows that the lethal activity of this extract is considerably greater than that of the extract prepared by myself; nevertheless, atropia so completely and successfully antagonised the lethal action as to prevent the occurrence of any symptom of serious import after the administration of a dose twice as large as that by which death was afterwards produced in about thirteen minutes."

It is evident, therefore, that Dr. Fraser must have obtained from Dr Cook an extract weaker than the one furnished to the committee, because they have never been able to save an animal from a dose of extract above three-fourths of a grain. This point is of considerable practical importance, because it shows that extracts, prepared even by the same man, may have different strengths.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 10TH, 1874.

ASIATIC CHOLERA.

SURGEON-MAJOR DR. ROBERT PRINGLE, in a paper read before the Medico-Chirurgical Society of Edinburgh, and published in the *Edinburgh Medical Journal* (September 1874), gives the results of nearly twenty years' experience of cholera in the Bengal Presidency. The paper is one of much interest and practical value. The subject is discussed under three heads or questions.

1. What is Asiatic cholera; and where does it originate?

In reply to this question, Dr. Pringle says that cholera is the result of a poison introduced into the system; and that the symptoms, such as vomiting and purging, with cramps and collapse, are due, the former to the efforts of nature to expel the poison, and the latter to the influence of the poison on the nervous system and the circulation. The author has known cases fatal within three hours from the commencement in persons previously quite healthy, and in some of these instances not more than one characteristic evacuation has occurred. In such cases, the fatal result is attributed to the non-exit of the poison. On the other hand, reference is made to the numerous instances of spontaneous recovery amongst religious pilgrims who, having been turned out of crowded lodgings into the open street, or having been struck down in the road, have rallied from the collapse of cholera, with but too visible proofs around of Nature's successful efforts to emit the poison. Now, nothing whatever had been done for these cases, and yet they were slowly *coming to life again;* and these wonderful recoveries were only equalled by the marvellous power of regaining strength to rise up, and, in the case of pilgrims, to renew their journey homewards.

2. How does the disease spread; and what are the best means to prevent its spreading?

To this the answer is, that the disease spreads through the agency of a poison which, like the small-pox poison, multiplying indefinitely within the bodies of the sick, is ejected by vomiting and purging, and then contaminates the air and the water; and the way to prevent the diffusion of the poison is to confine it as far as possible within narrow limits, and then to destroy it. "One of the most fertile means of spreading the disease is water; and among a water-drinking population like that of India, who obtain their supply from wells and ponds, and whose sanitary habits of ablution are too well known, and too often witnessed on the margins of ponds and canals, to require description, it need excite no wonder if cholera sweeps off its victims by hundreds." The author believes, from personal experience obtained while in medical charge of the station of Juggernauth, that one of the most active agents in the spread of cholera amongst Indian pilgrims is the so-called "holy food" upon which they chiefly live while at the shrine of Juggernauth. This food is composed of vegetables, chiefly of the melon kind, in various stages of decomposition, and doubtless often containing the germs of the cholera-poison, introduced by the impure water used in the cooking, and increased by the filthy state of the sheds in which the food is prepared. This food is sent all over India, and is believed by Dr. Pringle to be a frequent source of *apparently unaccountable* outbreaks of cholera. He has great faith in the preventive influence of quarantine in a port, and a *cordon de santé* on land; but he very sensibly remarks that, in order to be effective, they must be thoroughly strict and close. Anything short of this does more harm than good, since it leads to concealment, which allows the disease to spread unobserved, from fear of the punishment attending its discovery. When, therefore, precautionary measures cannot be thoroughly carried out, they had much better not be attempted. The author states, as a result of seven years' experience at the civil sanitarium of Mussorie and the military convalescent depôt at Landour, both in the Himalayahs, that not a single case of cholera occurred in which the disease was not the result of a visit to the cholera-infected plains within a period of three days from the onset of the symptoms. In the cholera epidemic of 1872, it was thought that an exception to this rule had occurred, and that a case of true cholera had originated in Mussorie. The sufferer was a cow-feeder living in the centre of Mussorie, and was supposed never to have left the station. Dr. Pringle, however, found, on making close inquiry, that the man had gone with some cows to a village in the plains where cholera was present, and had returned the same day. This visit to an infected locality had occurred three days before he was fatally seized with cholera. A strict *cordon de santé* was supposed to exist between the sanitarium and the infected plains five or six miles distant; hence the concealment regarding this man's visit to his village, which must have been well known to his neighbours. This case affords a good illustration of the difficulties in the way of an attempt to trace the source of infection.

3. The third question which the author discusses is, What is the treatment recommended? And this question he answers as follows. "Do not check the efforts of nature to throw off the poison. On the contrary, aid them judiciously, by draughts of tepid water, to dilute and emit the poison; and, if necessary, even small doses of castor-oil (the indigenous mild laxative of the country where cholera may be said to be endemic); tepid water injections; and the employment of every known remedy, except the administration of spirituous stimulants, to restore the tone of the circulation, and to bring back the natural heat; but, above all, *judicious and persevering nursing.*" "Such," he adds, "briefly, are my views, some if not most of which have been advanced by others, but chiefly by Dr. George Johnson in his *Notes on Cholera.*"

The author goes on to remark that one of the chief difficulties in carrying out a treatment based on the elimination theory is in avoiding excessive evacuation, whereby the danger of the disease may be increased. He believes that the cases are few in which the natural eliminative efforts require much assistance from drugs, whether of an emetic or a purgative character. Tepid water emetics and tepid water enemata he considers to be the best evacuants in the great majority of cases; while, in some few cases, castor-oil may be given as a mild laxative. On the other hand, all medicines that tend to check vomiting and purging, more especially opium, are believed to act injuriously.

The entire paper, of which we have here given a brief abstract, will well repay attentive perusal.

THE POISONOUS NATURE OF RED WALL-PAPERS.

THE dangers to be feared from wall-papers, stuffs, laces, and flowers, dyed green by the agency of arsenite of copper, have long been patent to the world. The particles of arsenic which become detached from articles so coloured have given rise to undoubted cases of poisoning, as well as to much unaccountable ill health. This danger is particularly great in ball-rooms, where the particles detached from the dresses and flowers worn by the ladies is in constant agitation in a condensed and heated atmosphere. To these dangers appertaining to articles dyed green must now be added, according to an article in the *Gazette des Hôpitaux*, a fresh series, which have been traced to wall-papers and materials dyed red with coralline dye. It was believed for some time, some years since, that this material, which was used to dye stockings, socks, and other woollen goods, a magnificent red, was poisonous. A young man who wore red socks, having been attacked by a very acute and painful vesicular eruption on both feet, M. Tardieu attributed this affection to the red colour of the coralline dye. The substance in question having been separated by M. Roussin, the chemist, and injected under the skin of a dog, a rabbit, and a frog, which died from its effects, it was concluded to be a violent poison, and subsequently fell out of use as a dyeing agent. Contradictions of this statement, however, were soon forthcoming; M. Landrin, a veterinary surgeon, asserted that he had administered coralline to dogs and cats without observing any subsequent ill effect. He had had positive proof of the absorption of the coralline and of its purity, since he had been able to collect it in the lungs of the animals, and to dye silk with it. Dr. Guyot confirmed these experiments, and came to the conclusion that coralline was not poisonous, even in large doses, and that it may be safely used in dyeing, *provided that it be not mixed with poisonous substances.*

In presence of these contradictions between men of equal education and veracity, doubt was permissible, and things remained in this state. M. Bouchardat had often had an idea that signs of poisoning by local applications of Scheele's green or arsenite of copper were present in some cases from the nature of the symptoms recorded; but this was an *à priori* explanation which was far from convincing. The question was still environed by mystery, when it was cleared up by a most singular incident. Dr. Bijon, a physician of Quimperlé, had an apartment hung with *feutre Pavy*, a wall-paper with a red pattern on a hazel-brown (*noisette*) ground. Whenever he inhabited this room, he was annoyed by prickings of the eyelids, with itching and burning sensations; he was even attacked by purulent conjunctivitis after having slept for several nights in this room. He had the paper analysed, and, from a piece of ten square *centimètres* (0.12 square yard), MM. Mayer and Lebaigue obtained, with Marsh's apparatus, enough arsenical patches to cover a saucer. They were also able to extract from a larger quantity of this paper enough coralline to submit it to reagents, to dye silk and wool with it, and to obtain sufficient arsenical patches to enable them to affirm that the red substance employed to colour the paper was undoubtedly coralline, and that, in its use as a dye for paper, it was an arsenical substance, as M. Bouchardat had foreseen; though M. Roussin had not been able to recognise it as such. M. Mayer could not obtain any patches of arsenic by submitting the brown portions of the paper to the action of Marsh's apparatus; and therefore came to the decision that the arsenic was only mixed with the red colour of the paper, that is, with the coralline dye.

An apparent contradiction is thus solved. It results that pure coralline is not poisonous, and may be employed as a dye; but, in materials as well as in wall-papers, an arsenical mordant is often used to fix it. This mordant, then, acts as a poison, whether acting topically on the skin, where it is directly deposited, through the medium of red shirts, drawers, and stockings, or by the dust and vapours which disengage themselves from the papers or stuffs dyed with it.

HOSPITAL SATURDAY.

As the day which has been fixed upon for the Hospital Saturday collection approaches, the promoters of the movement redouble their activity. For a week past a number of boys, clad in a fancy costume, and provided with collecting boxes, have been going about the principal thoroughfares distributing handbills, and soliciting alms from the passengers. The Committee are not likely to advance the object they have in view by this means. It is alien to the idea of a workshop collection. It is an appeal not to the working classes alone, but rather to the wealthy. It is, in fact, an offensive form of ordinary street-begging. If organised begging, such as this, is to be allowed, because the cause is supposed to be good, how, with any consistency, can other forms of mendicancy be suppressed?

A more judicious effort was made last Saturday by a Mansion House meeting, presided over by the Lord Mayor. On this occasion, the most important speech was that of Canon Miller. With many of his remarks we entirely agree; as, for instance, when he said:

"There were a great many classes among working men, and it was not right to talk of working men and of the poor together. He totally denied that the great mass of the working classes of his country were poor. Even allowing for the ebb and flow of prosperity in a great commercial country, there were a large number of working men who ought never to be poor, and who never would be poor for any length of time but for their improvidence and self-indulgence. He maintained that some reform was needed in regard to hospital relief to the working classes, and that there should be far less of the eleemosynary principle in the matter. There should be none of that running about and begging for tickets which thoroughly broke down the independence of the working man, his wife, and his children. If a great deal more of the provident element could be introduced, it would be far better for the working man and for the charities themselves, if, when needing medical relief, he contributed his quota to their support."

We ourselves are disposed to doubt whether by inducing working men to contribute to the Hospital Saturday Fund we are really encouraging them in the best means of providing for their own medical relief. In so far as the small number are concerned who will contribute anything appreciable, the plan will have the advantage of lessening the pauperising influence of charity; but for those who give a mere trifle, and, still more, for the great mass who give nothing, even this advantage will not be obtained. And yet this is the only benefit which we can see to counterbalance the many and serious evils which are likely to arise. The hospitals will be more than ever resorted to by the higher class of artisans, who ought instead to employ a general practitioner. Any scruples which may have hitherto deterred them will now be taken away. The out-patient rooms will be more crowded than ever. The time and energy of the staff will be still more taxed for gratuitous service. When the total collection is divided among the various hospitals and dispensaries, the sum apportioned to each must be comparatively small—nothing like sufficient to cover the afflux of patients from the working classes—so that the drain upon the resources of the charity will probably be greater than ever.

At the Mansion House meeting, two of the speakers—themselves working men—complained of the loss of time now incurred in the waiting rooms by out-patients, and they spoke of the benefit which they hoped would arise when working men had a share in the management, and could alter the arrangements in this respect. Now, it appears on the face of it that, with an increased number of patients, the delay would be even greater than at present. The fact is, the working men have already the remedy for this evil in their own hands. Let them either apply, as many can well afford to do, to the general practitioners in their own neighbourhood, or let them join a provident dispensary, where, from the number of doctors being in proportion to the patients, prompt attendance can be secured. Indeed we cannot but wish that this Hospital Saturday movement might develope into an organisation similar to that which is now commencing its operations in Manchester, and which might cover the whole of London with provident institutions in intimate relation with the existing hospitals. Such an organisation would be well timed at the present moment. It would do much to remove from the working classes the stigma of depending upon charity, for it would enable them to provide in a business-like way for their own necessities; it would remove the just grounds of complaint which the general practitioners now have against the hospitals; it would draft away many of the trivial cases, and would thus lessen the drudgery of the consultants; and, while it would adapt itself to the higher position now held by the working classes, it would also coincide with the growing conviction of the more thoughtful philanthropists, which is in favour of provident systems, and the grouping of our numerous charities into one harmonious scheme.

Mr. Edward Bellamy, of Charing Cross Hospital, has been appointed to deliver the course of lectures on the Anatomy of the Human Form, at the South Kensington Museum.

At the last general meeting of the Committee of Management of the Western Ophthalmic Hospital, Mr. H. Nelson Hardy, after several years' service as assistant-surgeon, was promoted to the office of full surgeon to the hospital.

THE present week brings always a renewal of life in the medical world. The entries at the London Medical Schools are, we hear, so far rather below the average, but there is yet time for them to show a higher average.

THE event of the week is the announced opening of a School of Medicine for Women, in London, under the management of a Council which includes the names of Mr. Critchett, Dr Billing, Dr. Burdon Sanderson, Dr. T. K. Chambers, Professor Huxley, Dr. Cheadle, Dr. Charlton Bastian, Dr. Sturges, Mr. Ernest Hart, Mr. Berkeley Hill, Dr. Murie, Mrs. Garrett Anderson, M.D., and Mrs. E. Blackwell, M.D. All of these are registered practitioners, and all are persons who have had much official connection with medical schools. The names of the Council will be accepted as a guarantee that the school will be carefully and prudently conducted. This school sustained an immense loss in the death of Dr. Anstie, who was acting as its dean, and was one of its most earnest and active supporters. Mr. A. T. Norton of St. Mary's Hospital has undertaken to fill his place.

ONE rather singular difficulty is likely to occur in connection with the new School of Medicine for Women. All the lecturers are gentlemen who are already lecturing at other schools of medicine; and this was part of the programme of the school. It was thought that this would secure to the school a just character for the thoroughness and adequacy of the education which it proposed to give to those who wished to avail themselves of it. We learn, however, that at the London College of Surgeons this may constitute a difficulty, although not perhaps an insuperable one, in the way of recognising the school. It is one of the rules of the College that no lecturer shall be recognised at more than one school, as well as that he shall not be recognised in more than one subject. This rule was at one time very necessary, to meet the case of pluralists who used to lecture on nearly every subject in the curriculum, and give a nearly complete course of education off their own reel. To students of the present day, the encyclopædic teaching of men of the old school would be a little astonishing. We are arriving, however, at phases of teaching in which some men devote themselves and their lives to teaching one subject. It seems a little hard, for instance, to say that Professor Bentley's lectures on Botany shall be recognised in the Strand, and not in Bloomsbury Square; or that Mr. Berkeley Hill shall be recognised as a teacher of surgery in Gower Street, but not in Brunswick Square.

THIS difficulty, however, is a superficial one which might be overcome in various ways. The Council of the school will no doubt find that their real difficulties will be based on the sex of their pupils. The question has been hitherto fought very much on side issues. The constitution of this school will raise the broad question. Will the examining bodies admit to examination, and give diplomas to, women who come to them fully educated by teachers of recognised fitness, at an institution duly established and fitted, and after fulfilling the regular curriculum of medical study, or will they deny them examination and the right to practise, by reason of their sex?

THE last of the Congresses is just over. The address of Dr. Lyon Playfair on Public Health, which we publish, is one of the ablest documents of which sanitary literature can boast. We are glad to see that Dr. Lyon Playfair concurs in, and repeats, *verbatim et literatim*, our condemnation of the policy of anarchy and jealousy by which Mr. Stansfeld has wrecked his Public Health Bill. Such a condemnation, coming from that one of his colleagues most able to judge, may possibly lead Mr. Stansfeld to feel that to have adopted the advice of the Public Medicine Committee of the British Medical Association might have saved him and the country from the unparalleled *fiasco* which has wrecked his reputation as an administrator.

IT is significant to observe that Dr. Playfair turned to the Conservative Government as the persons to whom we must naturally look for a reorganisation of the frightful sanitary muddle into which Mr. Stansfeld has plunged the country. We much fear that this cannot well be expected for some years to come. Unhappily, as was pointed out by anticipation to Mr. Stansfeld, the work of organisation involves destruction of his errors, as well as construction of a better system. The difficulties in the way are therefore greatly increased. Moreover, the same influences which led Mr. Stansfeld into the mire are at work to mislead his successor. Mr. Stansfeld was guided by the permanent officers of Gwydyr House; and Mr. Lambert is at the bottom responsible for the grave faults which his chief committed. He is still at the elbow of Mr. Sclater-Booth. The minister is even less experienced than Mr. Lambert in the principles of sanitary administration and the facts of sanitary science. It is impossible that he should find his way alone out of the labyrinth. The public health staff, with Mr. Simon at their head—the only men in the office who know the facts, and who could frame a reasonable scheme for our deliverance from the sanitary disorganisation which prevails—are kept at arm's length. When a man of Mr. Lambert's great ability and industry goes deliberately wrong, and is responsible for a huge mountain of errors of omission and commission, he is more likely to use his ability in trying to make the wrong seem right, than in "taking advice", and helping to destroy his own edifice of error. We have very little hope, therefore, of any satisfactory reconstruction for some few years to come.

DR. PLAYFAIR'S reference to the necessity of providing a "State Medicine Qualification" for future medical officers of health, reminds us that the Committee of Council of this Association have it in charge, from the last annual meeting, to deal with a very elaborate and important report on a scheme for the purpose, drawn up by a committee of the Association, of which Dr. Rumsey was chairman, and which included the names of many eminent and experienced sanitary authorities. The report was the result of very great labour; and we hope that it will be actively treated without delay. It should, we think, be submitted, as soon as possible, to the Government and the General Medical Council.

THE lamented death of Dr. Anstie leaves vacant several appointments, among others that of Annual Orator of the Medical Society of London.

THE removal of Dr. Rutherford from London to Edinburgh leaves the Chair of Physiology in King's College unoccupied at a critical moment. It has been stated that Dr. Ferrier will receive the appointment; but we believe that Dr. Ferrier proposes to devote himself to practical medicine, and feels that the Chair of Physiology and Practical Physiology would make too heavy draughts on his time. Temporary arrangements will, of course, be made to prevent the students of King's College from suffering from the unavoidable interregnum.

MR. MAUNDER gives the Lettsomian Lectures at the Medical Society of London this session. He has chosen the Surgery of the Arteries as his subject.

MEDICAL INSPECTION OF MEAT.

THE following case, which came before the County Police Court, Manchester, is in some respects similar to the Bishop Auckland case, which we reported last week. Both these cases show the urgent necessity which exists for medical officers and inspectors to make themselves thoroughly acquainted with the appearances which meat presents in every form of unwholesomeness. A Patricroft farmer was charged at the County Police Court, Manchester, with being in possession of meat which was unfit for human food. The special feature of the case was, that the "meat" had been examined by a medical officer of health, who gave a certificate which was described by Sir J. Mantell as "confused". The medical officer, on the carcase being shown to him, was of opinion that, although the fore-quarter was unsound, the hind-quarter seemed sound and sweet, and he thought it might be used. "He was misled as to the nature of the disease in the fore-quarter. The defendant told him that the beast had received an injury from a sharp instrument, and on that information he gave a certificate that the hind part might be used for dogs' food; but subsequently, when the inspector said that in that case the meat would have to be destroyed, he altered his certificate to the effect that the remainder of the carcase might be taken for immediate use. He afterwards found that the cow had died from fever." Fortunately, the carcase, after all, did not get into the market.

HEALTH OF FOREIGN CITIES.

IN Paris, the death-rate in September was equal to 19 per 1,000 of the estimated population; in Brussels, 17 per 1,000; the Hague, 25; Amsterdam, 23; Copenhagen, 25; Christiania, 17; Berlin, 22; Breslau, 29; Munich, 32; Vienna, 21; Rome, 25; Turin, 16; New York, 29; and in Philadelphia, 20 per 1,000. The Registrar-General has, through the kindness of Dr. Ardouin, Physician to the European Hospital in Alexandria, received a return of the deaths in that city and in Cairo during the first fifteen days of September. The area of Alexandria is 5.586 square kilometers; of Cairo, 9.284; the approximative population of Alexandria, 212,034; of Cairo, 349,883. The weekly deaths in Alexandria were 222; in Cairo, 338. The annual rate of mortality was, therefore, 57 per 1,000 in Alexandria, and 50 in Cairo. Such a return, supplied weekly, will redound greatly to the credit of the Administration of Egypt, and be the first step to sanitary improvement.

THE PUBLIC HEALTH.

DURING last week, 5,245 births and 3,232 deaths were registered in London and twenty other large towns of the United Kingdom. The mortality was at the average rate of 22 deaths annually in every 1,000 persons living. The annual death-rate was 18 per 1,000 in Edinburgh, 26 in Glasgow, and 26 in Dublin. In the eighteen large English towns, the annual death-rate from the seven principal zymotic diseases averaged 4.8 per 1,000, and ranged from 1.6 and 1.7 in Bristol and Nottingham to 11.5 and 12.8 in Sunderland and Liverpool. The deaths referred to scarlet fever in these towns, which in the two previous weeks had been 272 and 241, rose again last week to 290, of which 107 were returned in London, 81 in Liverpool, 21 in Birmingham, and 20 both in Manchester and Sheffield. The 12 deaths referred to small-pox in Birmingham raised the number of fatal cases that have been recorded within that borough since the beginning of the year to 484. In London, 2,155 births and 1,163 deaths were registered. The births were 171, and the deaths 260, below the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two previous weeks had been equal to 19 and 17 per 1,000, were last week 18. The rate from the principal zymotic diseases was equal to 4.9 per 1,000 in East London, whereas it averaged but 2.7 per 1,000 in other parts of the metropolis. To the seven principal diseases of the zymotic class, 206 deaths were referred, which were 103 below the corrected average number. The fatal cases of scarlet fever showed a considerable excess, whereas those of nearly all of the six other diseases were below the average. The 107 deaths from scarlet fever exceeded the number in any week since the winter of 1870-71, when the disease was severely epidemic. The mean reading of the barometer at Greenwich during the week was 29.48 inches; the mean temperature of the air was 56.8 deg., or 2.7 above the average; and rain fell on five days during the week, to the amount of 1.14 inches.

A BEQUEST TO SCIENCE.

A RECENT number of the *London Gazette* contains a translation of the will of the late M. Girolamo Ponti of Milan, who has left the greater portion of his property to the "Academies of Science of London, Paris, and Vienna". It appears from the will that the late Signor Ponti, though bred to commerce, had a love for science, and thought he would best benefit mankind generally by this disposition of his property, especially as his relatives are all in a sufficiently independent position not to require further pecuniary acquisitions. The relatives, however, including Signor Ponti's mother, who survives him, are not unnaturally of a different opinion, and intend to contest the will. As, too, there is much vagueness about the term "Academies of Science of London, Paris, and Vienna", it appears probable that Signor Ponti's will will afford some work for the legal profession in the three capitals named, as well as in Milan; and the old story of the oyster and the shells seems likely to find another illustration. Lord Derby sounds the first note of alarm by the expression of his opinion that "it appears desirable that any institution claiming the legacy should do so at as early a period as possible". The principal portions of the will referring to the bequest are as follows.

"I dispose of the whole of what belongs to me on this day in favour of the three Academies of Sciences of London (capital of England), Paris (capital of France), and Vienna (capital of Austria); so that my said patrimony is to be divided amongst the said three Academies in equal parts (after deduction of certain charges). My patrimony consists for the greater part of mortgages, and, taking account of interest, amounts at present to 865,000 Austrian *lire* [about £34,600]. Each of the three Academies above named shall be bound to invest in a perfectly safe and profitable manner the third part of my patrimony which falls to its share, and with the proceeds to institute two annual competitions for ever, in equal amounts. Consequently, each of the aforesaid Academies will have to appoint a committee to decide upon the grant of the rewards annexed to the two competitions, which are to embrace the following branches: 1. Mechanics; 2. Agriculture; 3. Physics and Chemistry; 4. Travels by sea or by land; 5. Literature. The object of the committee must be to give the preference to whomsoever among the competitors that shall have advanced the sciences by the discovery of new and simple appliances; and this refers to mechanics, physics, chemistry, and agriculture. In regard to travels by sea and by land, whoever has distinguished himself by a long journey by land and by sea, or has been able to make propositions fitting to diminish the dangers inherent in the present system, should have the preference. In default of inventors and distinguished travellers, the committee will turn its attention to the most distinguished publications of original works, or at least of translations from other languages of works upon the above mentioned sciences and travels, including literature."

THE SCHOOLS AND THE NAVAL MEDICAL SERVICE.

MOST of the introductory lecturers on October 1st referred to the unsatisfactory condition of the Army and Navy Medical Services, and advised that the students should think twice before rashly entering on a career which is at present pregnant with disappointment and dissatisfaction. The references to the services at the hospital dinners were of a like character.

GODFREY'S CORDIAL.

MARY BRUNTON was charged on September 30th, before the Hull magistrates, with having caused the death of two children who had been entrusted to her care. The magistrates decided from the evidence that the children had met their death from an overdose of Godfrey's cordial which had been administered by the prisoner; but there was not sufficient evidence to convict of manslaughter. The Chairman said that "he firmly believed that very many children went out of the world through overdoses of Godfrey's cordial".

CAPTAIN BEDFORD PIM ON THE NAVAL MEDICAL SERVICE.

IN returning thanks for "the Navy" at the Middlesex Hospital dinner, Captain Bedford Pim said:

"Mr. Ward Hunt, at the interview with the deputation from the British Medical Association in June last, handed over the consideration of this important question to Lord Gilford; for, no doubt, the First Lord felt that he knew little enough of the Navy as a whole, and even less of the medical branch. But Lord Gilford himself, although a captain in the Navy, and one of the best and bravest sailors I ever met with—indeed, we were badly wounded about the same time in China, and lay in hospital together at Hong Kong—can hardly be expected to know much of the requirements of medical men. Gentlemen, to fall back for a simile upon the anatomical knowledge picked up at Middlesex Hospital under my kind friends on my right and left (Mr. De Morgan and Mr. Nunn), I venture to doubt if Lord Gilford knows the os frontis from the os coccygis; and surely this is not the way to deal with a question of such vital importance. Gentlemen, I fear the Admiralty will not be 'tickled'—charm you never so wisely—into putting the medical branch of the Navy on a proper footing. They don't know how to do it; that's the fact. My advice, then, is, flog them into a right frame of mind by shutting the doors of your hospitals and medical colleges in their faces. The medical profession is the noblest in the world; I except none. Your mission is to save human life and ameliorate suffering; and when, I would ask, has a real medical man been known to flinch in his duty, no matter how appalling the surroundings? In spite of this, and of the fact that the profession of medicine is that of gentlemen in every sense of the word, yet the surgeon does not hold his proper position in the Navy; and, therefore, when you are asked to join the service, I give you the same advice *Punch* gave to those about to marry—*Don't*."

"These remarks," says *The Navy*, "were received throughout with applause; and no doubt the advice of Captain Bedford Pim will not be neglected. Our own views with regard to the position of naval surgeons have been fully set forth in Nos. 3 and 4, pages 41, 51-2, of *The Navy;* but the time even yet seems scarcely propitious for reform in this direction, or, indeed, in any other, if we may judge by the barren results of the last session."

ACTION FOR NEGLIGENCE.

At the Liverpool assizes, on September 18th, a case of alleged negligence was brought before Mr. Justice Archibald and a special jury. The defendant Dr. George C. Rigby, was a surgeon of Chorley, was sued for damages laid at £1,000 for negligence in the treatment of a broken arm, in consequence of which dry gangrene had set in, and the limb became mortified, and had eventually to be amputated. The plaintiff, a child, sued by her father. A great deal of contradictory evidence was given on both sides. The balance of the medical evidence appeared strongly to preponderate in favour of Dr. Rigby. The jury gave a verdict against him for £150. The judge, however, stayed execution until November, in order to give the defendant opportunity for a new trial.

THE LATE DR. ANSTIE.

At a meeting of the Committee of the Hospital Out-patient Reform Association, held on Tuesday evening, at 27, George Street, Hanover Square, it was proposed by Dr. Alfred Meadows, seconded by Dr. Joseph Rogers, and unanimously resolved:—"That this committee, having heard with unfeigned regret of the premature death of Dr. Anstie, desires to express its deep sense of the loss which the profession has thereby sustained, especially as regards the cause of medical reform, in which he was an earnest and able worker. The committee remembers with gratitude his efforts on behalf of the objects of this association, and appeals with confidence to the members of the association in behalf of the Memorial Fund now being raised to perpetuate the memory of one who for earnestness of purpose, integrity, and straightforwardness, was a bright example to all who are interested in the cause of medical relief." Mr. H. Nelson Hardy, honorary secretary, proposed that a circular letter embodying the above sentiments should be sent to each member of the association. This was seconded by Dr. James Davison, and carried unanimously.

THE SANITARY STATE OF ROME.

Mr. Thomas Cook, the well known excursion-agent, writes to the *Times* from Rome in the interest of those persons, medical men and others, who are only able to leave England for a holiday in the early autumn. Mr. Cook affirms that the greatly improved sanitary condition of Rome renders it a perfectly safe resort for visitors at this season, and even earlier in the year. He says that "a wonderful change has been effected in the Imperial city, both above and below ground. Streets have been newly paved, all are well swept, and the refuse is daily carted away; the walls of the houses have been cleaned, and every year tons of lime are put on them in the shape of whitewash; new sewers have been constructed and old ones opened; even below the depth of the recently excavated floor of the Colosseum a fine sewer has been opened, which had been hidden by accumulations of ages; gas has been lighted up to add to its influence in the clearing away of noxious vapours; and works of immense magnitude are now in course of construction for bringing in unlimited supplies of the best water within thirty miles of Rome. The main streets are being tunnelled for the convenience of water and gas-pipes, and beneath is the great main sewer of the city. Stagnation seems everywhere to have given place to life, and health-streams run in every direction." Having been informed that Rome was second of Italian cities in the bills of mortality, Mr. Cook obtained from the Government Office of Health, by the intervention of a friend, the returns of six weeks' mortality, from which the following tables have been constructed.

Annual Death-Rate per 1,000 *in Twelve Cities in Europe and the United States of America in varying Weeks in July and August, Rome extending to September 6th,* 1874.

Places, and commencing Dates.	Population.	First Week.	Second Week.	Third Week.	Fourth Week.	Fifth Week.	Sixth Week.
Rome, Aug. 2 ...	248,307	29.0	25.7	29.5	25.0	31.6	27.2
Naples, July 21st	448,335	39.6	38.3	37.9	34.9	33.8	...
Florence, 11th...	167,093	38.3	32.7	40.8	32.7	...	...
Turin, 19th	212,644	26.5	25.5	20.3	21.3	...	...
Venice, 15th......	135,872	40.0	41.7	32.5	31.3	26.0	37.0
Paris, 10th	1,851,792	22.0	20.0	21.0	22.0	21.0	...
Berlin, 18th	826,341	37.0	50.0	48.0	45.0	38.0	...
Vienna, 24th......	632,494	24.0	25.0	20.0	21.0	23.0	20.0
Munich, 25th ...	180,000	36.0	37.0	36.0	37.0	29.0	32.0
London, 25th....	3,400,700	25.0	25.0	23.0	21.0	20.0	19.0
New York, 4th...	1,040,000	25.0	28.0	40.0	44.0	38.0	35.0
Philadelphia, July 4th..............	674,022	15.0	24.0	27.0	30.0	25.0	23.0

Births and Deaths in Rome in Six Weeks of 1874, *and Corresponding Weeks of* 1873.—*Population*, 248,307.

	1874.		1873.	
	Births.	Deaths.	Births.	Deaths.
From July 27th to Aug. 2nd...	150	161	128	175
From Aug. 3rd to Aug. 9th...	147	158	152	184
From Aug. 10th to Aug. 16th..	142	174	137	173
From Aug. 17th to Aug. 23rd..	145	143	162	134
From Aug. 24th to Aug. 30th..	139	179	116	137
From Aug. 31st to Sept. 6th ...	134	167	120	153
Totals	857	982	815	956
Increase	42	26		

The first of the above tables is not complete, and the weeks do not correspond as to dates, the returns being dependent on receipt of returns from the other cities. Rome is a week, a fortnight, or three weeks in advance of the other European cities, and a month in advance of New York and Philadelphia. In a few cases, the returns of the last one or two weeks are not shown in the official reports; but sufficient is shown to attest the fact that the mortality of Rome in the hottest months is below that of any other Italian city, except Turin, which is exceptionally low. Another feature of interest is, that the deaths in Rome greatly preponderate in the hospitals. The summary is worthy of note:

	Deaths in Hospitals.	Deaths in Residences.
First week	65	21
Second week	56	32
Third week	71	28
Fourth week	68	21
Fifth week	66	26
Sixth week, ending September 6th ...	75	31
	401	159

Thus it is seen that the great preponderance of deaths is in the hospitals, while the deaths of the citizens at home are very light in a population of nearly a quarter of a million. This preponderance of deaths in the hospitals is attributed by Mr. Cook to the habits of the poor and working population of Rome, many of whom expose themselves to the chance of ague and intermittent fever, by sleeping about the streets without any shelter from the cold night-air. The writer of these remarks concludes by stating that he publishes them "not as a theorist, a scientist, a statist, or a hygienist, but as a simple observer of facts of ten years' accumulation as applied to Rome, and as one earnestly desirous of telling 'the truth, and nothing but the truth', in the interest of the public".

NEW REGULATIONS FOR METROPOLITAN SLAUGHTER-HOUSES.

AT the annual meeting of the Special Sessions for the renewal of slaughter-house licenses for the Kensington, Hammersmith, and Chelsea districts on Thursday last, Dr. Dudfield, Medical Officer, and Mr. Harding, Clerk to the Vestry, asked that the renewals for the licenses of the Kensington district should be adjourned for three months, in order to give the butchers time to put their premises in proper order. This application, however, was declined. On the Kensington cases being called, the Vestry Clerk stated that he and the medical officer had been instructed to oppose the renewal of all licenses in cases where the premises did not come up to the standard adopted by the Vestry. These regulations were: 1. A slaughter-house should have an independent entrance, so that cattle should not have to pass through a house or shop, and should be a reasonable distance from other buildings. 2. It should be open to the roof, or at least should have no inhabited rooms over it. 3. It should be well ventilated and properly lighted, so that the slaughtering should be done, as it always should be, with closed doors. 4. It should have walls and flooring of smooth and unporous materials, the flooring being laid on concrete. 5. It should be well drained with glazed stoneware pipes, and the drains should be permanently trapped. 6. It should have attached to it ample and separate lairs, constructed with a due regard to sanitary and other requirements. 7. It should be effectually separated from any lair, stable, dung-pit, water-closet, etc.; so that the meat may not be exposed to any offensive effluvia. 8. It should be of adequate size, and should not be used for any other purpose than that for which it is licensed; and particularly it should not be used as a lair, a stable, or a cart-shed. The applications for licensing were taken alphabetically, and opposed on the grounds that the slaughter-houses did not come up to the standard set forth in the foregoing rules. The magistrates, however, overruled the objections, on the ground that the licenses had not been opposed in former years. It was pointed out, however, that the medical officer had forwarded his report on the condition of these buildings to the magistrates every year; but the bench, whilst admitting that the structural and other conditions were objectionable, still adhered to their decision, and renewed the licenses for the ensuing year.

THE PROVIDENT MOVEMENT IN MANCHESTER.

WE are very glad to learn that the necessary guarantee fund for the proposed establishment of six provident dispensaries in Manchester is very nearly subscribed. The details of this excellent scheme were recently described in the *Times* and elsewhere. We understand that a guarantee fund of £850 a year for three years has now been subscribed. The total fund required for the purpose has been fixed at £1,000 a year.

EFFECTS OF THE REGENT'S PARK EXPLOSION.

SEVERAL patients in the Hospital for Diseases of the Nervous System, which is close to the locality of the accident, have been severely but differently affected by the explosion which occurred on Friday morning. One young man, an epileptic, who was usually, between his attacks, in a somewhat imbecile condition, became very violent, taking off his coat and wishing to fight with the other patients in his ward. Another man, suffering from partial paralysis, but without any impairment of intellect, was affected with fits of crying, and has ever since been depressed in spirits. A girl, aged about 15, an epileptic, has become, since the accident, apparently imbecile. And another patient, a woman suffering from nervousness and debility, was soon after the explosion attacked by diarrhœa and very distressing nausea, and has ever since had a horrible feeling of dread and depression of mind.

QUARANTINE IN AMERICA.

A FACT in connection with the present outbreak of yellow fever in America is worthy of notice in its bearings as regards the laws of quarantine. It is stated that the present is the first occasion in the history of the General Government of the United States that the Treasury Department has made use of all its legal authority for the prevention of an epidemic, and the first time that the collectors of customs, revenue cutters, and marine hospital surgeons have acted in entire harmony with the local quarantine authorities.

SCOTLAND.

MR. WILLIAM DITTMAR, Lecturer on Chemistry at Owens College, Manchester, has been appointed Professor of Chemistry at Anderson's University, Glasgow, in the place of Mr. Thorpe, appointed Professor of Chemistry at the Yorkshire College of Science.

THE BRITISH MEDICAL ASSOCIATION IN GLASGOW.

WE see with pleasure that Dr. Andrew Fergus has been elected to the Presidency of the Faculty of Physicians and Surgeons. Dr. Andrew Fergus is a member of the British Medical Association. Branches of the Association have now been formed at Aberdeen, and in Elgin; and we have already so many members in Glasgow, that we hope the time is not far distant when they will begin to organise a Branch there, remembering that professional union is strength in the best sense, and that even a few dozen men of the stamp of those who belong to our Association in Glasgow would, if associated, and forming one of the organised Branches of this great professional brotherhood, exercise an ethical and scientific influence which is less easily excited by individuals unassociated. The Association will next year meet on Scottish ground, on which it has not rested for many years.

SCOTCH UNIVERSITIES.

DR. LYON PLAYFAIR, as the parliamentary representative of Edinburgh and St. Andrew's Universities, received on the 2nd instant, a deputation who commended to his attention and support the Bill which has been prepared for the amendment of the Scottish Universities Act. The two principal provisions contained in this Bill, the deputation explained, were—first, that the General Councils of Scotch Universities ought to be empowered to hold special meetings when emergencies arose; and second, that they should have power to communicate directly and officially with each other. Dr. Playfair replied that he agreed with the deputation as to the general principle involved in the proposed reform they had brought under his notice.

IRELAND.

THE foundation of a new hospital for Kingstown near Dublin was laid by Cardinal Cullen on the 1st instant.

IN consequence of a very severe outbreak of scarlatina at Enniskillen, the schools have been closed. Several deaths have been reported.

THE King and Queen's College of Physicians resumed its usual monthly sittings after the recess, on Friday the 2nd instant. The new buildings for extending the College are progressing favourably and approaching completion.

WE regret to learn that Dr. Lombe Atthill, well known in Dublin as an obstetric surgeon, has been suffering from an attack of typhoid fever; but we understand that at present he is going on favourably.

THE WORKING OF THE PUBLIC HEALTH ACT IN IRELAND.

WE noticed, the week before last, the issue of the orders of the Irish Local Government Board, for the application of the Public Health Act in all parts of Ireland, except the towns of Dublin, Belfast, Cork, and Limerick, for which orders have not yet been issued. The local authorities, with few exceptions, have not been slow to carry out the orders of the Local Government Board, so far as the making of appointments is concerned. The important post of "consulting sanitary officer", has in most cases been filled up without any public notice that an appointment was to be made. The local boards seem to have no idea what the duties to be performed under the Act are; many authorities seem to think there are no duties to perform, and, accordingly, have fixed the officers' salaries at nominal amounts. The dispensary medical officers who are, *ex officio*, sanitary officers under the Act, have had their salaries fixed, in some places, as low as £5, and the highest amounts to £40 *per annum.* It is quite manifest that the intention of the local authorities offering such ludicrously small salaries, is to prevent any work from being done under the Act, and thereby to follow the well-known *rôle* of obstruction often practised by local boards, and which, unfortunately is too well known in England. The proceedings at the South Dublin Union Board of Guardians have attracted special attention. Under the Act, (section 4, subsection 1) when a board of guardians sits as a "rural sanitary authority", the guardians representing any portion of the union wholly included in an urban sanitary district are prohibited from taking part in the proceedings. Yet, in spite of this very distinct provision, two of the urban guardians sat at the board, and one, a Mr. Burne, took part in the proceedings, especially in that part concerning the election, and fixing of the salary of the consulting sanitary officer; the candidates for the office being Dr. Charles F. Moore, a well-known and experienced sanitarian, and Dr. Burne, son of the aforementioned guardian, and, up to the present, unknown to sanitary science. Dr. Burne, as might have been anticipated—in fact, as was anticipated—was elected. Such proceedings are not calculated to increase public confidence in the local administration of sanitary law. We shall return to this question.

THE LIFFEY NUISANCE AND DUBLIN MAIN DRAINAGE.

LAST week, in noticing the above subject and its connection with scarlatina, we stated "that the result is more melancholy when it is remembered that an offer of Sir John Arnott to purify the Liffey without a farthing of expense to the citizens was rejected by the Corporation of Dublin". We now find that we were not strictly correct in stating that Sir John Arnott's offer was rejected by the Dublin Corporation. It was the Dublin Port and Duty Board that rejected the plan, and for good reason, namely, that *the* plan (for it appears that it was a specific plan) of Sir John Arnott would impede the navigation of the river, and was for many reasons inapplicable to the case. In fact, all inquiries, except Sir John's own, agreed in condemning the plan as impracticable. Although the Dublin Corporation has not acted satisfactorily in the matter of the Liffey purification and main drainage, we should be sorry to charge it with rejecting a valuable and inexpensive measure which it was impossible either for that or any body to approve of. In the meantime, the Committee appointed by the citizens to watch the authorities in the matter, are diligently working, and are not likely to let the matter rest until next summer, as some appear to think.

THE MEDICAL SESSION IN DUBLIN.

THE Dublin Medical Schools have commenced work by opening their dissecting-rooms. A considerable number of students have entered their names, and there is every prospect of a good class this winter. As the books of the Dublin Schools are not closed until November 25th, and lectures do not commence until the first of that month, it is premature to guess concerning the exact number likely to enter upon their professional studies this winter.

THE IMPORTANCE OF REGISTRATION.

AT a late meeting of the Tullamore Board of Guardians, a matter of importance to the profession was under consideration. It seems that, during the absence of the usual dispensary medical officer of the Clara District, Dr. Eaton was temporarily appointed for three weeks to act as his substitute. The Local Government Board, however, on being asked to sanction the payment of this gentleman, refused, as he was not registered under the Act, and therefore was not entitled legally to any remuneration. The guardians had no option but to refuse payment; but the Dispensary Committee seem to have acted very carelessly in the matter, as one of the requirements expected from a *locum tenens* is the production of the registration-certificate.

SOCIAL SCIENCE ASSOCIATION.

PUBLIC HEALTH SECTION.

IN addition to Dr. Lyon Playfair's address, which is published at page 455, the following papers were read in this Section.

Mr. DAVID GIBB, Medical Officer to the Monkland Iron Works, read a paper on The Relative Increase of Wages, of Drunkenness, and of Crime during the last five years in the Central Mining Districts of Scotland. The conclusion which Mr. Gibb based upon the statistics gathered in certain Scotch mining districts was, that the industrial result of the unprecedently high rate of wages obtained for the last two-and-a-half years, between 1869 and 1873, had been almost wholly disastrous, while he did not believe that the high wages had done anything whatever to reclaim an immoral man.

Dr. ALEXANDER ROBERTSON, physician of the Town's Hospital and Asylum, Glasgow, read a paper advocating further legislation for persons labouring under Mental Disorders resulting from or characterised by Excessive Indulgence in Alcoholic Liquors. The Habitual Drunkards Bill failed to distinguish sufficiently between voluntary intoxication and that due to a clearly diseased state of the nervous system. Confinement and abstinence from alcoholic liquors were necessary for the cure of dipsomania. Beginning with this class, the writer proposed the establishment of institutions for their treatment by private enterprise, the Government being expected, after the public confidence had been gained, to vote public money for their support.

Dr. YELLOWLEES, of Gartnavel Asylum, read a paper on the Criminal Responsibility of the Insane.

Dr. ANDREW FERGUS of Glasgow read a paper on the Sewage of Towns and Disposal of Organic Refuse. He said that the idea that the sewering of towns and the removal of organic refuse must of necessity go together, was a fallacy that had given rise to much perplexity, and hindered the right sanitary solution of the sewage problem. The unwholesomeness of towns being increased by allowing organic matter to decompose in their midst, it was of essential importance to remove it before decomposition took place. Our present system of water-carriage was quite contrary to the true principles of sanitary science, seeing that the rainfall and subsoil water, and all kinds of organic and other refuse, were indiscriminately huddled into the same sewer, and discharged without any regard to ulterior results into the nearest stream. If our present system of drainage was to be continued, he thought a change should be made in the construction of the drains. If the joints remained tight, they would prevent the soil from being impregnated with the products of decomposition. In order to illustrate how little effect trapping had in preventing sewer-gases from passing into house-drains, he exhibited a number of decayed lead soil-pipes thoroughly corroded. As this action usually took place in the upper side of the pipe, and more particularly at bends, and always from the inside, he had been forced to the conclusion that it was caused by sewer-gases, and this view was supported by the result of chemical analysis. Flushing did not do much good in a sanitary point of view. The best drains were covered in their interior under surface with a deposit more or less deep, which materially retarded the flow; and, as decomposition actually did take place, it must either be that the flow of sewage was slower than might be supposed, or some decomposing matter already present acted as a ferment. The system of water-carriage for organic refuse produced serious evils. When the fæces and urine were kept separate they decomposed slowly, but when they were mixed decomposition went on more rapidly, and narrow sewers and cesspools were really ingenious laboratories for the production of sewer-gas. This not only diminished the oxygen in the air of towns, but charged it with poisons. A putrid carbo-ammoniacal vapour was produced which acted either generally, by lowering the health, or specifically, by the production of disease. Few weeks passed without an account in some of our medical journals of outbreaks of typhoid fever from impurity, sometimes in water, sometimes in air. Was there any remedy? He believed there was. The natural course was to return the excreta to the earth; but it was difficult to apply an earth-system in towns, and therefore some other system must be adopted. The first point was to keep the excretory matter separate from the rainfall, and treat it immediately. Numerous methods had been proposed to effect this. If it were true that organic poison, producing disease, might pass from sewage; if it were true that cholera, diarrhœa, diphtheria, and typhoid fever were traceable to the reception into our systems, by air and water, the results of the decomposition of excreta; if it was true that these diseases, and others from the same cause, swelled our death-rate, and carried off some of the most valuable of our population; then the only true sanitary solution of our difficulties was that all excreta should either be returned to the earth or subjected to chemical action, rendering decomposition impossible. If a tithe of the time, and one-thousandth part of the money, that had been devoted to water-carriage had been spent in investigations in this direction, the problem of the sewage question would have been solved long ago.

Mr. Baldwin Latham, C.E., read a paper on the Sewerage of Towns. So far as the drainage of a town was concerned, three things were necessary in order to secure the health of the inhabitants—first, the effectual drainage of its surface; second, the drainage of the subsoil; and, third, the means of conveying away the polluted water. The object of his paper was to show the necessity of procuring water in abundance for all our large towns. After the water was procured, it must subserve all the purposes of removing the alvine discharges of the population as well as all the liquid refuse from slaughter-houses and manufactories. The dry system of collecting the alvine discharges had never been shown to be remunerative; the liquid portion of the sewage had also to be dealt with, and it was as difficult to purify that portion as if it contained alvine discharges. Towns which adopted the two systems had a double expense to incur—the expense of purifying the sewage and the expense of removing the fæcal matter. It appeared to be the idea of some that the standard of purity for all rivers should be assimilated. This would be radically wrong in principle, and would inflict hardships on many communities. There were many points of gradation which ought to be observed in different circumstances, and in many cases it would be found more economical to discharge directly into the sea than to attempt to purify rivers up to a certain standard at different points. In his opinion there was no process equal to irrigation for purifying all kinds of sewage.—Mr. Holland did not believe that there had been a large increase of diarrhœal disease since the introduction of water-closets. On the other hand, he contended that diarrhœal disease had diminished with the introduction of that system and of a good water-supply. The great cause of an unusual prevalence of diarrhœa was the presence of excremental matter in the neighbourhood of houses.—Dr. Stevenson Macadam, of Edinburgh, speaking of the sewage question, said, in regard to the method of purifying sewers, if they continued the use of them, there could be no doubt there ought to be flushing stations in towns. In respect to the question brought forward by Mr. Holland, that the introduction of the water-closet system had not done much harm, he had no doubt his friend forgot at the time that much of the water-supply taken from wells in villages had been completely destroyed by the water-closet system. Of course that was done by not carrying out at the same time a proper system of drainage. He was inclined to believe that the water-closet system was a bad one, and that it had been carried out far too extensively.—Mr. Wm. Sillar advocated the "A B C" process for purifying the sewage.—Captain Liernur explained his pneumatic system, and gave an account of the work he had executed in Holland, where his sewage system had been adopted in several towns. — Mr. Wanklyn, of London, said the conclusion to which he had come after much consideration, was that there was no way of disposing of excreta so easily and with so little immediate disadvantage to themselves as the water-closet system. — The discussion was continued by Dr. Bond, Medical Officer of Health, Gloucester, and Mr. W. R. W. Smith, of Glasgow, the latter of whom said Captain Liernur's system had been working in Glasgow for two or three years with the addition of a little water on Hoey's plan, and the closets which had been fitted up had given satisfaction. He held that it was impossible to treat the sewage of Glasgow by irrigation.— Mr. Ed. C. Stanford looked upon irrigation not as an advance, but as a retrogression. Captain Liernur's system and the carbon system were advances.—Mr. Hope, of Barking, corroborated what Dr. Fergus had said with regard to lead-pipes; but because lead-pipes were bad, it did not follow that water-closets were bad.

Major-General H. Y. D. Scott, C.B., contributed a paper on Legislation for the Restraint of River Pollution. In bringing the subject before the Department, he made use as far as possible of the reports of Royal Commissions upon it. In these reports municipal authorities would find: 1. That "a great and manifest good" will be effected, and "the chief part of the nuisance arising from the discharge of sewage into rivers and streams may be obviated by simply arresting the solid matter in suspension in the liquid". 2. That in the removal of the solids "even the slightest risk of nuisance may be entirely obviated", and the condition of the effluent much improved, by the adoption of a process of precipitation. 3. That these objects can be secured "consistently with a fair expenditure of money falling on those who ought in justice to bear it", and at a cost "such as town populations may reasonably be called upon to meet." 4. That towns which are intending to resort to irrigation and intermittent downward filtration will, by the adoption of a precipitating process, purify the sewage on a much smaller area. 5. That sewage-irrigation cannot be carried out from the utilisation point of view without storage tanks; and that the liquid is, in the generality of cases, preferred by the farmer when freed from solids and slimy compounds. It then becomes difficult for towns to show just cause why they should not be peremptorily and at once restrained from the further contamination of rivers by the sedimentary matters of sewage. In conclusion, he asked the question—Since the simple measures recommended by the Royal Commissioners will "greatly mitigate the existing evils"—he used their own words—"practically rid us of the danger and nuisance of town sewage", might they not reasonably hope that a Ministry which had promised sanitary legislation would listen to an urgent appeal to have these measures enforced? There would be no necessity that legislation should altogether stop at this point. When all the offending towns in the country had been compelled to comply with a low standard of purity, a higher one might be attempted with some chance of success. To insist upon absolute or nearly perfect purity now would end in leaving matters as they are.

Bailie Morrison, Chairman of the Committee of Management of the Glasgow Improvement Trust, contributed a paper on the High rate of Mortality in Glasgow, with Observations on the measures taken by the Municipal Authorities to reduce the same, under "The Glasgow Improvements Act, 1866", and other public acts. The high death-rate in Glasgow was simply from a variety of causes: (1) the character and occupation of the population; (2) the impurity of the atmosphere; (3) density of population and overcrowding; and (4) infant mortality. In 1865, what might be designated "Ancient Glasgow" covered an area of about 88 acres in the centre of the city, where a population of 51,304 was packed together at the average rate of 583 persons to the acre, in upwards of 10,000 houses, the walls of which were permeated with disease. The population of the whole city in 1865 was 423,723, so that fully 12 per cent. occupied houses, in every sense of the word, unfit for human habitation, rapidly spreading moral and physical deterioration. The death-rate over the whole city was, as might be expected, 32.8 to the 1000, which increased in 1869 to 34 to 1000, and the average death-rate of the 88 acres specially alluded to was 38.64 to 1000. These figures still, however, failed to convey an adequate idea of the rapidly-increasing over-density. The Improvement Scheme comprised 40 acres, in the worst of which, and in portions of the others, the population was housed at the rate of 1000 to the acre, or 640,000 to the square mile. In these plague-spots and fever-dens the death-rate was as high as 52.21 to 1000 in 1865. In 1870, before demolition commenced, it rose to 70 in 1000. The changes to be effected by the operations of the Improvement Trust would extend over a period of probably not less than 20 or 25 years. Although the time was limited during which the trustees must either acquire the property or serve notice of their intention to do so, there was no limitation as to the period of reconstruction, which could only be proceeded with gradually. Very great discretion was needed to prevent needless sacrifice of revenue by too extensive demolition at one time. The gradual displacement of the population had been successfully accomplished up to the present time, and no case of individual hardship was known. After pointing out that the operations of the Improvement Trust had contributed to the diminution of crime, and giving examples of the efficacy of the operations in controlling epidemic disease, the author observed that, as a precautionary measure for curtailing the ravages of epidemics, the destruction of houses unfit for human habitation, and spread of population, was not only one of the best, but appeared to him to be in the end the cheapest of all remedies. The general powers conferred by the Legislature on municipal and local authorities might, with great propriety, be extended, especially the privilege of compulsory purchase of properties, the removal of which would tend to control the spread of epidemics, or which, in the opinion of the medical officer of health, were permanently unhealthy. He was further inclined to advocate that municipal and local authorities might be allowed, should they deem it necessary, to erect buildings of a better class in lieu of those removed, where needed to accommodate the population dispossessed—such a clause being permissive, and not compulsory. In Glasgow, 3085 houses had been demolished by the City Improvement Trustees, displacing an estimated population of 15,425; to provide for which, and the natural growth of the city, 26,974 houses had been erected within the municipal boundaries, from 19th June, 1866, to 31st August, 1874, which were estimated to accommodate 133,970. This did not include the numerous buildings in the immediate outskirts of the city.

The Rev. R. J. Simpson also read a paper on the same subject. There could be no doubt that, at this advanced stage of civilisation, and in Great Britain, there were at this moment thousands of the labouring poor inhabiting, or rather herding in dwellings scarcely fit for "the beasts that perish". Such a state of things, found especially in our large and thickly-populated towns, was dangerous to public health, and a serious impediment to the progress of morality. No more prolific causes of drunkenness were to be found than a foul dwelling and its almost invariable concomitant, a comfortless home. Suitable dwellings for the poor could not be provided either by individual or associated enterprise, without the assistance of special powers of sale and purchase. There must be compulsory powers to deal with the powerful and well-compacted phalanx of grasping landlords, or their more grasping middlemen. Government aid must come to the help of the weak against the mighty; there must be an authority high above all party, local or otherwise, superior to all jobbery. There must be powers, at least in all the large towns, analogous to that which had been called into action in Glasgow, Edinburgh, and at Dundee. In concluding, Mr. Simpson claimed special attention to the following four points in providing dwellings for the labouring poor.—(1) Let them be as convenient, or —to use their own expressive term—as "handy" as possible to the work of the people; (2) Let them not be too much congregated into one faubourg or quarter, objectionable alike on social and on political grounds; (3) Let there be, if possible, in the buildings, or hard by, a good washhouse and a "crèche" or "infant nursery", in which to tend and guard the infants during the parent's absence at work, and thus enable the elder children to go to school; and (4) Let there be, if it can at all be secured, a playground or vacant space, where the children can play without the probability of being run over by a butcher's cart or contaminated by the lowest company of the streets.—Mr. EDWIN CHADWICK said the example set in Glasgow was one that ought to be watched with great attention for imitation in London, Liverpool, Manchester, and other towns.—Dr. GAIRDNER of Glasgow said he was perfectly satisfied that the function of the authorities was mainly to destroy. What they had got to do was to pull the rotten teeth, to destroy what was irremediable, for until the dens were removed they could not expect an improved class of houses. This process of destruction had been getting a bad name recently; but destruction, done upon sanitary principles, beginning with the worst of these buildings, which could not be allowed to remain upon any sanitary principle whatever, was the only process by which reconstruction in an effective sense could be ultimately accomplished; and if that were effectually done, the work of reconstruction could to a large extent be left to private enterprise.—Dr. SHRIMPTON gave an account of the Shaftesbury Park Estate dwellings, where the working men were so comfortable in their homes that they did not require to go to the public-house. Indeed, they would not have a public-house on the estate; and altogether the scheme had been a commercial success. In afterwards speaking to the general question relating to working men's dwellings, Dr. Shrimpton said the element about which we must be most careful was ventilation. —Mr. WM. BOTLY said that in agricultural districts he had found an immense want of cottages, as well as in the cities and towns. —Mr. THOS. BINNIE, of Glasgow, had engaged in the erection of working men's houses in Glasgow as a commercial speculation. He thought it was necessary, by some legislation, to prohibit the construction of pestilential plague-spots.—Dr. LYON PLAYFAIR (president) remarked that Bailie Morrison had shown how entirely necessary it was for the Corporation to proceed as they had done in the total destruction of the property. By the operations of the Corporation the physical and also the moral atmosphere of the city had been enormously improved. No tax would be found so productive and so economical as that which was necessary, by the large expenditure incurred to root out the evils, and by destruction produce construction, which was answering the purpose admirably in the improved class of dwellings for the poor which were being provided.—Mr. W. R. W. SMITH, while acknowledging the improvements effected by the operations of the Corporation, said it was only a half measure. If they were to have good houses built in lieu of bad ones, they must get Parliament to give municipalities more power over the surrounding land. The only course they could follow in reference to how they should get health in workmen's buildings was to awaken Parliament to the fact that "the earth is the Lord's and the fulness thereof", and that mankind, womankind, and childkind must have room enough to breathe, "live, move, and have their being".

The Rev. Dr. J. ELDER CUMMING, of Glasgow, contributed a paper on The Neglect of Infants in large towns, with some remarks on the Crèche System. In the course of the paper he said the neglect of infants, arising from employment of mothers, told on them in health and also in sickness. In health, they were neglected first by the nurses to whom they were entrusted. Old women were in the act of drugging the infants, to keep them quiet and asleep. The extent to which this went on in a large town was not generally known, and he had reason to believe that some of the monthly nurses among the rich were not guiltless of the same habit. The last instance of neglect of infants in health that he mentioned was the improper and insufficient food which was given them. The neglect of infants when ill was of the grossest kind. Instances of this he explained, and then gave an account of the *crèche* system. He stated that he was not an advocate for having a large *crèche* of fifty or sixty children. A number of small institutions, taking up district after district, would seem better fitted to meet the evils complained of. The advantages which could be fairly claimed for the system were:—For the infants themselves, good and suitable food, sufficient warmth, shelter, and ventilation, constant cleanliness and medical care; and for the mothers, the effect had come to be that, accustomed to see their children in a state entirely different from what they ever knew before, they made afterwards an effort to keep them so; and for the public at large, it might be hoped that an extension of the system would gradually lead to a great decrease of infantile mortality, and the rapid and decided improvement in the bodily condition and health of the children who were spared.

Mr. F. FULLER read a paper On our paramount Duty to provide Wholesome and Pure Recreation and Amusement for the People, and the Dire Results and Dangers which attend Neglect of It. In conclusion, he said, "I will tell you what you must do. You must teach the people how to play, you must give them a taste for good and beneficial play, and you must increase their facilities for enjoying it. You must give them a distaste for mean, vicious, and debasing play, and you must diminish the inducements and temptations to it."

OWENS COLLEGE MEDICAL SCHOOL.

WE publish in another column Professor Huxley's address, delivered at the distribution of prizes to the successful medical students in connection with Owens college, on the occasion of the opening of the medical school which has recently been added to the institution.

We are indebted to a local journal for the following account of this institution; and it will be considered by all our associates as one of the most satisfactory signs of the times, and an important proof of the progress of decentralisation, and the power and vitality of independent local exertion, that it can be said of a provincial medical school that it yields to none, and probably surpasses any metropolitan school in the completeness of its appliances, and the fulness of its capacity for affording high scientific instruction.

The medical department is situate on the north-western portion of the land belonging to the College, and faces Coupland Street. The plans were prepared by Mr. Alfred Waterhouse, and they have been successfully carried out. The buildings consist essentially of two large lecture theatres—one adapted for anatomical and physiological lectures, and the other for lectures on medicine and surgery. The benches in the anatomical theatre are made in the well-known horse-shoe shape, so that the students can always have a good sight of the preparations on the lecturer's table below. The anatomical theatre has sitting accommodation for two hundred and forty students, and the medical theatre for about a hundred and fifty. Both theatres are well lighted, and a large sun-burner throws its rays upon the lecturer's table. Strict attention has been paid to the ventilation of the theatres. Above the lecture theatres, which form the front of the building, is the dissecting-room, which, we believe, is the most perfect, so far as space, ventilation, and general fittings are concerned, in the United Kingdom. It is seventy-seven feet long by thirty-two feet wide, and the manner in which it is fitted up and furnished will certainly surprise the medical gentlemen who visit it, its arrangement being far superior to any room of the same kind that we have seen. There is a hoist, running the whole height of the building, for the purpose of raising the subjects, preparations, and specimens from the ground-floor to the dissecting-room. The floor of the room has been constructed by the Val de Travers Company, an important advantage of the flooring being that it can be very easily cleansed. The anatomical department is also very complete in its other arrangements, especially as regards the private rooms of the professors (Dr. Morrison Watson) and the demonstrator (Mr. Perrin). The next department which attracts attention is that in which Professor Gamgee, Brackenbury professor of Practical Physiology, will preside. The fittings of this department are not equalled in completeness by any other in this country, and it reminds those who have visited them of the splendid Government establishments of the same character for which Germany is renowned. The students' physiological library is a fine room, forty-one feet long by thirty-two feet wide. It is well lighted from all the four sides, and fitted in the most complete manner with benches and tables for the use of the students working both in experimental physiology and microscopic histology. This department is complete in every respect. An important circumstance in connection with this department—now that the medical boards of examiners are every day requiring more practical knowledge on the part of the students—is the fact that the professors of anatomy and physiology and the demonstrators of anatomy of the Owens College medical school have to devote their whole time and energies to their respective subjects, and cannot practise as medical men. This, we are informed, is an unparalleled circumstance, not excepting the best schools of London, Edinburgh, and Dublin. The museum is on a most extensive scale, and, when complete, will be one of the greatest ornaments of the school. It is not yet furnished, however. The room is fifty feet long, and thirty-two feet wide. The library, a very important department of the school, is a large and lofty room, and very well lighted. We understand that in a short time the shelves of the library will contain the very valuable library of medical works belonging to the Manchester Medical Society, which is the finest medical library in the provinces, and the students will have the benefit of it. The members of the Medical Society obtain the privilege of holding their meetings in the library. At present, the building is not seen to advantage, being from some points shut out from view by some old buildings: these, however, will shortly be removed, and the medical school of Owens College will then form part of the quadrangle of the noble structure.

THE EXPLOSION IN REGENT'S PARK.

AMONG the unfortunate sufferers from the recent explosion were the inmates of the Hospital for Diseases of the Nervous System.

Notwithstanding that a number of patients were asleep in the front rooms, and almost in an instant found their beds covered with showers of glass-splinters, no bruise nor any injury whatever was inflicted upon them. In the back and side-rooms much less destruction took place. The patients who were at the time of the explosion resident in the hospital, were suffering from epilepsy, hemiplegia, and other forms of cerebral and spinal disease. There were altogether seventeen of them, a number of others having been discharged during the vacation. Of these seventeen, in only two a decidedly prejudicial influence has manifested itself. One of these is a woman under the care of Dr. Meryon, suffering from a profound hysterical disturbance of the nervous system, combined with epileptiform seizures. This patient was at first quite still and depressed, and continued so for twenty-four hours, but afterwards became exceedingly violent, and had to be held by three people. She has since been sent to a lunatic asylum. A girl, aged 14, suffering from epilepsy, under the care of the same physician, has been in a state of stupor since the explosion. She did not answer questions, refused food, and kept staring at the ceiling in a state of utter bewilderment. At the time of writing (Wednesday afternoon) the stupor is less; she has taken food, and she hesitatingly answers questions when they are repeated two or three times.

Two children, under the care of Dr. Althaus, one of whom, a boy aged 4 years, suffers from the effects of an attack of cerebral hæmorrhage, and the other, a girl aged 13, from a congenital semi-paralytic condition of all four extremities, owing to imperfect development of the cerebro-spinal nervous centre, were excessively frightened, but received no proximate or subsequent injury. A woman, suffering from partial paralysis, under the care of Dr. Lockhart Clarke, has complained of her memory being much affected by the shock. The matron and servants of the institution received no injury whatever.

On prescribing for his out-patients on Monday afternoon, Dr. Althaus noticed that a number of those who reside in the neighbourhood of the hospital, and even a few who live at a distance, as at Highbury, had their symptoms considerably aggravated. The most striking case of this kind was one of paralysis agitans. This patient had been improving, but ever since the explosion the shaking had increased to a most fearful extent, and what had remained of voluntary power, more especially in the upper extremities, appeared to be almost completely annihilated.

BEQUESTS.—Under the will of the late Mr. Bryce Allen, the following bequests, among others, were made:—To the Liverpool Northern Hospital and the Liverpool Seamen's Orphanage, £500 each; to the Liverpool Southern Hospital, the training-ship *Indefatigable*, or the ship for the time being stationed at Liverpool in substitution thereof, the Liverpool Medical Mission, and the Liverpool Town Mission, £300 each; and to the Liverpool Royal Infirmary, £200.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

DR. GAMGEE, Brackenbury Professor of Physiology at Owens College, has been appointed Assistant-Physician to the Children's Hospital, Pendlebury, near Manchester. The vacancy occurred through the resignation of Dr. Gwyther, who had held the post for some years. Dr. Gamgee will have charge of the general medical cases; Dr. Borchardt, the physician to the institution, taking the fever-ward.

Much has been written of late concerning the fever-accommodation in the city. Mr. Leigh, the medical officer of health, contending that it is quite inadequate for the requirements of the place, recommends that central receiving stations should be established for the isolation of contagious febrile disorders. There is, however, at the Children's Hospital, a ward of twenty-eight beds devoted entirely to fevers; besides the new large and commodious building at Monsal, under the management of the Infirmary Board; not to mention the fever-wards at the workhouse. Mr. Leigh objects to the Children's Hospital on the score of distance, and to the hospital at Monsal owing to its being chiefly available for adults. However, it would be as well to make use of the existing room before a cry is raised of its being insufficient.

An important special meeting of the members of the Medical Society was held on September 16th, to consider the advisability of transferring their quarters from the Royal Institution to a room offered by the Council of Owens College. The advantages of such a transfer were placed before the meeting by Dr. Borchardt, and it was finally unanimously agreed that the necessary steps should be taken.

The city has lost a much respected practitioner in the death of Dr. Fletcher. Although actively pursuing the duties pertaining to his practice to the day of his death, he was known to suffer from emphysema of the lungs, with occasional severe attacks of asthma. He died somewhat suddenly, in the presence of his family. A certificate of death was signed by a physician and an old friend of the deceased, yet the coroner held an inquest. No *post mortem* examination was deemed necessary, and the jurymen returned the usual verdict of "Death from natural causes". Surely the relatives and friends of Dr. Fletcher ought to have been spared this unnecessary intrusion; the coroner is not enhancing the value of his office by such inquests as these. Dr. Fletcher, besides being Medical Officer to the City Gaol, was Surgeon to the Manchester, Sheffield, and Lincolnshire Railway, and to the A and B Divisions of Police.

CONSTANTINOPLE.

[FROM AN OCCASIONAL CORRESPONDENT.]

The Health of Damascus.—Benghasi.—The Famine in Asia Minor.

IN my last letter, I spoke of the very unsatisfactory condition of the public health of Damascus; the fever, which was at first localised to the city and suburbs, has now, I am sorry to say, extended itself to the surrounding villages. It seems that the leading symptoms of the same are intense pyrexia, frontal cephalalgia, slight delirium, exhaustion, and rapid emaciation, accompanied by considerable biliary disturbance, and not attended, as a rule, by a fatal result; though I hear, on good authority, that the inhabitants of the Moslem quarter of the city are dying at the rate of forty a day, which is quite sufficient to stamp the character of the epidemic as being of a very grave type. Many of the European community are sick, and already several deaths have occurred amongst them. It is to be sincerely hoped that the disease will not spread amongst the agriculturists, and so prevent the ingathering of the crops, which are now ready for husbanding, and so bring the calamity of famine, accompanied by all its train of concomitant evils, upon us.

Up to the present time, we have heard nothing fresh from Benghasi concerning the late outbreak of plague, and every one here is looking forward with great anxiety for further news.

A mixed commission, composed of one medical and two military officers, accompanied by a Secretary, have left Constantinople for Asia Minor, to report fully upon the working of the central relief committee, at present sitting under the presidency of Sa'abdoullah Bey, as to the best means of supplying relief to the famine-stricken population of Angora and Kastamboul.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Wednesday, the 4th day of November next, at a quarter past 3 o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, October 8th, 1874.

BATH AND BRISTOL BRANCH.

THE first ordinary meeting of the session will be held at the College Green Hotel, Bristol, on Thursday, October 22nd; FREDERICK MASON, Esq., President, in the Chair.

EDMUND C. BOARD, *Honorary Secretary.*

Clifton, October 1874.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING will be held at the White Hart Hotel, Reigate, on Thursday, October 22nd, at 4.30 P.M.; CONSTANTINE HOLMAN, M.D., in the Chair.

Papers will be read by Dr. G. W. Grabham (Earlswood), Remarks on the Origin, Varieties, and Termination of Idiocy; by Dr. P. H. Pye-Smith, on some cases of Abdominal Tumour; by Dr. C. Holman; by Dr. J. Walters, on a case of large Naso-Pharyngeal Polypus successfully removed, on a case of Poisoning by Arsenic, and on a case of Poisoning by Hydrocyanic Acid.

The Chairman kindly invites members and their friends to lunch at 1.30 P.M., at "The Barons", Reigate.

Dinner will be served at the White Hart Hotel, at 6.15 P.M. Tickets, including wine, 14s. After dinner, the presentation of the testimonial to Dr. Lanchester will take place.

JOHN H. GALTON, M.D., *Honorary Secretary.*

Woodside, Anerley Road, S.E., September 30th, 1874.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEETING.

THE autumn meeting of the above District will be held at Chichester, on Tuesday, October 27th; Dr. TYACKE in the Chair.

Any gentleman desirous of reading a paper, or bringing forward cases, is requested to communicate forthwith with the Honorary Secretary.

WM. J. HARRIS, *Honorary Secretary.*

Worthing, September 28th, 1874.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 29th, at 5 o'clock.

The following question has been settled by the Council as the one on which each member should be asked to express his opinion at the meeting after dinner: "What is your opinion as to the best treatment of whooping-cough?"

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, September 29th, 1874.

CORRESPONDENCE.

THE REGENT'S PARK EXPLOSION.

SIR,—As a sufferer under the late calamity, perhaps you will allow me to record the results of my experience while the facts are fresh in my mind. Like my neighbours, I was suddenly awakened on Friday morning, about 5 A.M., by a loud report. The house appeared to shake and tremble under it, and in an instant a heavy shower of broken plate-glass from the windows covered the bed in which I was lying, as well as the floor of the room. One large flake, weighing more than a pound, was found upon the bed. Fortunately, no portion struck me on the head or face.

My first impression was, that the house had been struck by lightning; but, on looking out of the open space left by the destruction of the windows, there was no appearance of a storm. In a few seconds after the explosion, the room was filled with a thick smoke, and there was a strong smell of burnt gunpowder. It was difficult to move, as my hands and feet were cut by the fragments of glass; and my clothing at the side of the bed was covered with it. In a short time, I was able to examine the house, and I found destruction in every room—all the plate-glass windows shattered, the furniture displaced, doors forced open and shutters rent from their hinges, heavy and thick iron bars bent into a bow-like form. The rooms were filled with the smoke of burnt gunpowder.

All the members of the household suffered from the severe shock; but this did not prevent them from working to remove the wreck. There was nothing like panic, and all fear was removed so soon as we heard that there had been an explosion of gunpowder within a short distance of the house. We then felt that the worst was over.

A careful examination of the house showed that it had been moved as if by an earthquake. A chest of drawers in an upper attic had been thrown forward, as the drawers were partly opened and an ornament at the top of them had been thrown to the opposite end of the room. The pictures on the walls were also displaced. The house had evidently been shaken and rocked in a direction from south to north, the site of the explosion being from two to three hundred yards south-west of my house. Two heavy stone slabs on the upper landing had been heaved up and partly separated from each other. In the bedrooms, all the windows had been destroyed; on a table in front of one of these there was a looking-glass; the silvered plate had been broken and thrown in fragments into the middle of the room; but the mahogany frame which held it remained in its usual place on the table with no further damage than the splitting of the back-boards. The force of the explosion had exerted itself in a most capricious manner; shutters, windows, doors, and walls in a north and south direction were generally destroyed; those articles which were placed against the walls in an east and west direction generally escaped. Bolts and locks were snapped across and broken off short. A large glass chandelier lying in the north and south direction had been blown off two of the hooks by which it was suspended to the ceiling, and hung down inverted, being suspended by only one hook. The glass was not broken.

The dining-room presented the appearance as if a vacuum had been formed in the interior. The windows on the south side had been violently forced inwards, the shutters split; two of the heavy cornices had come out of their sockets, and were hanging over in a dangerous position, being supported only by the iron remaining in one plate at each end. The heavy mahogany chairs had been thrown forward into the middle of the room, and a bird-cage suspended over one window was found on the floor in the middle of the room, the bird being uninjured. This condition of things showed that the house had been tilted from south to north. The state of the furniture in the attics, about forty feet over the dining-room, distinctly showed that the movement there had been from north to south. That there had been something like the effect of a vacuum in the dining-room appears probable from the fact, that, while the windows on the south had been forced inwards by the explosion, the door opposite to them on the north side, which was locked and bolted, had also been forced inwards, the bolt being bent and the woodwork about the sockets being torn away as by a pressure from without.

It is remarkable that much of the broken plate-glass had undergone fracture in rectangular masses, as if it had been a crystalline structure. The surface of the glass not broken was traversed by parallel lines, as if marked by a diamond, and it readily broke in these directions as if it had the cleavages of a crystalline mass.

It is difficult to account for or explain the capricious effects of an explosion of this magnitude. The window of my library, on the north, which is in a bay or recess, and apparently quite protected from any blast coming from a south-westerly direction by the projection of an adjoining building, was shattered to fragments. It consisted of plate-glass with a double ornamental sash. The shutters had been wrenched off their hinges and carried inwards, so great had been the force acting upon them in the recess. Considering that this window faced the north and was entirely out of the direction of the explosion, it is wonderful to observe the amount of force or rending power exerted. A large stained glass window projecting beyond this bay, facing the north and partly exposed to the west, was not in the least injured. I have examined some of my neighbours' houses, and these show equally the capricious action of the vast volume of gases and vapours evolved in a few seconds from five tons of solid gunpowder. Slight substances escaped destruction, while those which were heavy and resisting were shattered. An apparently protected window was reduced to ruins, while an exposed one escaped.

What was the cause of this ruin and devastation of such a large amount of property in the North-Western district of London? Its aspect is that of the bombardment by a hostile force, or such as might be produced by a typhoon or a tornado on a large scale. The answer is, the explosion of *eleven thousand two hundred pounds of gunpowder*, accumulated by the Regent's Canal and Grand Junction Companies and transported by them in the dead of night into the midst of a sleeping population! But for the fact that it was at a time of night when most persons are in bed, the destruction of life would have been awful. Persons have escaped with their lives by reason of their having been in a recumbent position, the best position for comparative safety under all violent explosions.

Salus populi suprema lex. But where is the safety to life and property when two companies, looking only to dividends and regardless of human life, are permitted by our law to tow a *powder magazine*, ill protected, into the midst of a population without giving them any warning of the destruction which is impending over them? A barge, charged with five tons of gunpowder and some barrels of inflammable petroleum, which could only intensify the danger arising from an accident, is towed by a high-pressure steam-tug. This is selected for gunpowder, while horse-traction is resorted to for the conveyance of crockery, bricks, timber, etc. I have seen this steam-tug from my bedroom windows during the dark winter nights with sparks and flame issuing from its funnel, appearing like a fiery meteor amidst the trees. No one could have supposed that the directors of any company would have dared to select this method of transit, or to allow fires on board their barges charged with this dangerous material in such large quantities. It is absurd to talk of safety under such circumstances, where, as in this case, the gunpowder must have been ill packed to have ignited at all. The placing of one or two barges after the steamer would not ensure safety. No reasonable persons would allow a funnel pouring forth sparks and flame to be within two barges' length of any of our great gunpowder magazines, nor would they allow smoking or lucifer matches, or hobnailed shoes, to their workmen, or cooking, except under great precautions. These remarks apply to cases where the gunpowder is properly packed and stored under the supervision of competent workmen. The precautions taken by Government in the transport of powder should be carried out to the fullest extent in regard to private companies.

In this case, no proper precautions could have been taken. The article was badly packed, either wholly or in part, or it would not have exploded. In using a steam-tug for its conveyance when horse-power might have been employed, and, in transporting at one time, in an ill protected barge, *five tons* of this dangerous material, there is displayed a recklessness of human life and property which is inconceivable. Why not transport five or six hundredweight at a time with due precautions? Why should an open barge be connected with a powder magazine? The Act of Parliament, 23 and 24 Vict., cap. 139, prescribes strictly the quantities of gunpowder which may be kept by dealers and others, and the selection of sites for powder magazines in relation to public buildings, churches, and inhabited dwellings; but it has left it open to companies to bring magazines, in the shape of loaded barges, into the midst of a populous city or town without any restriction as to the quantity transported, or to the precautions in its transport necessary to ensure safety. So far as I can see, there is nothing to prevent the two companies to which we owe this awful catastrophe from carrying in their barges at once 50 or 500 tons of powder, of selecting a fiery steamer for its conveyance, and taking no precautions as to the men in charge smoking or wearing shoes with iron nails, etc.

In the last session of Parliament, the subject of the transport of gunpowder with safety to the public was inquired into by a committee; but it was considered that legislation would paralyse the trade; therefore nothing was done. The result of non-interference and postponement has led to much misery among a large section of the population, and in a loss of property which has been estimated at not less than two hundred thousand pounds.

I have not heard of any serious effects to health produced among my neighbours by this terrible event. Some at first suffered from shock and in others great nervous excitability has been manifested.

I am, etc., ALFRED SWAINE TAYLOR, M.D., F.R.S.
15, St. James's Terrace, Regent's Park, Oct. 7th, 1874.

SIR,—My house is situated 150 yards from the site of the explosion, and received its force obliquely at an angle of 25 degrees. I was lightly sleeping, and was on my feet in a moment. The oscillation of the house was tremendous, and I steadied myself by the bedpost until it ceased. The screams of my family, above and below, were so piercing, that I was quite prepared to find them dead or dying. I rushed up stairs, and, casting a hurried glance in each room, satisfied myself that the roof was standing; and then I descended to the basement to turn off the gas at the main. In my descent, I observed such universal havoc, that the idea of a prodigious explosion alone remained. I was in the street in a few seconds more, and, casting my eyes along the neighbouring terraces, saw similar destruction everywhere; and, as there were no screams, and no one at the broken windows, I became truly horror-struck, and concluded my neighbours were all dead. A minute or two later, and a messenger, excited and breathless, apparently on his way to the police-station, told me North Lodge was blown up. A voluminous flickering flame there to an extent confirmed the tale, but added mystery as well. Two or three minutes later, the superintendent from the lodge was borne to my house, and followed by his daughter and maid. They were not much hurt; and, not having realised their peril, were but little alarmed. The chief injuries brought in were glass-cuts, bruises, and a few dislocations. The majority of the women laughed; a few shed tears; but all feel more or less the effects of the shock, and cannot sleep. The hydrate of chloral has answered admirably as an hypnotic, and almost without exception.

The damage to the house and contents is very considerable. Every door and window, with their frames, will require replacement. All the locks and bolts are burst or fractured. The furniture is blown into fragments, and piled in heaps. Every room is a wreck of glass, plaster, splinters of wood, and soot; and, if the disaster had occurred during the busy hours of life, the injury to life, property, and beauty, would have been unparalleled. My family escaped with slight cuts about the face and feet; one had a tooth knocked out; and I feel myself as if I had had no sleep for a week.

There is no doubt that there was petroleum on board as well as gunpowder, as I have myself seen the staves of a petroleum-cask in one of my patients' drawing-rooms; and this will probably explain the occurrence of the two explosions. I am, etc.,
1, Titchfield Terrace, N.W. E. HOLLAND, M.D.

A FEW DAYS AT HARROGATE.

SIR,—It is unquestionably a matter of the utmost importance that in England we possess such a combination of curative waters as occurs at Harrogate. Their value is beyond calculation. No one now doubts their efficacy in a large class of cases. The cures accomplished there every year are now becoming generally known over the length and breadth of the land, and the medical men throughout the country very well appreciate their aid in many cases which resist home treatment.

The numbers who every year visit Harrogate are, consequently, very great. Many resort thither who have tried various continental waters; and, though the waters of Harrogate are inferior to some abroad in certain particulars, yet, for many diseases, their efficiency is far beyond that of any on the continent. Having a short holiday only this year, I determined to spend it at Harrogate. No fewer than eight of my own patients visited it this year, some with me and some later. I also came into contact with a great many invalids there; and I have no hesitation in saying that the waters of Harrogate have effected very curative results to many of my own patients, and to several others known to me. It is not my intention in the present paper to go into particulars of cases, as the kind of ailments likely to get benefit there is very generally known to the profession through the works of Dr. Kenyon, and more lately of Dr. Myrtle. My object is rather to point out in what particular I was, as a physician, disappointed in Harrogate; and I do so the more especially, because I believe that the defects to which I allude might be remedied.

The first great defect, I think, is with the town itself. There is no attractive promenade; all is irregular, tame, sombre. The pump-rooms are badly situated. The "old sulphur-well" is situated in a gloomy part of the town, and has no surroundings to make it cheery to an invalid; and the Spas in Montpellier Gardens are almost as bad. These grounds are too small, and are quite unsuited for the numbers who flock thither every morning. In fact, they are so small that there is not room for that exercise which should be taken along with the waters. Then the Cheltenham Gardens are rather better; but these contain only the one water, *i.e.*, the strong chalybeate, and the charge for entrance is sixpence daily, so that, in point of fact, one has to pay sixpence for one tumbler-full of this water. This should not be. Indeed, the charges at each of the three, the "Old Sulphur", the Montpellier Springs, and the Chalybeate Spa in the Cheltenham Gardens, are quite too high. No such charges exist at any Continental spa. If there be a virtue in these waters, given bountifully by the gracious hand of Providence, they should not be taxed by local authorities. Seeing the vast amount of money spent by visitors in Harrogate, the managers of these gardens and waters should combine to make the place as attractive as possible at the lowest possible charge.

To remedy some of the defects referred to, it occurred to me during the few weeks of my sojourn there, that the corporation of Harrogate might very well (in addition to all they have done) obtain, first a plot of ground to the west of the "Old Sulphur Well", and have it laid out nicely in walks for parties drinking of this well, in which to take exercise, between the different draughts of their morning and evening doses. Secondly, they might secure a covered promenade from this well to the White Hart Hotel, in which parties could exercise on wet days, of which there is a very large proportion in Harrogate. This could be done in front of the fine shops extending between these two points, without injuring their value. In fact, I think such an arcade would enhance their value, as it would speedily become the fashionable promenade in all weathers. Then those damp Montpellier Gardens should not be resorted to for exercise. They have a most chilling effect upon most people; and hence I think, thirdly, that a similar covered walk should be made extending from their entrance gate nearly to High Harrogate, at least as far as the ascent to the Prospect Hotel. These covered promenades would add greatly to the look of Low Harrogate, if nicely got up, and would prove an immense boon to the many visitors frequenting the various pump rooms and baths daily. Fourthly, the Montpellier and the Cheltenham Gardens should be all one. One charge should admit to both; and they could very well be connected by a wooden bridge, thrown over the public way which runs between them, and both might be much improved by statuary and flower beds; most decidedly, as at present, both are behind the age of good taste and refinement in which we live. Another great want in them is water. No ponds exist, no aquarium; but whether any improvement in this line could be effected I am not in a position to say. Fifthly, a good club should be started, built in some central place, possessing a first-class reading room; and to this club every gentleman staying at any hotel should be admitted at a nominal charge.

My opinion is that, if the improvements I have specified were effected, Harrogate would become much more attractive than it is; and many would continue to go thither every year, who, for want of them will turn off to the more inviting places on the Continent.—I am etc.,

Loughgall. W. W. LEEPER, M.D.

THE ASPIRATOR IN TAPPING THE CHEST.

SIR,—I regret that Mr. Godrich should doubt my statement that aspirators with guarded trocars have been in use for more than twelve months; but I take it that few will consider his ignorance of their existence a sufficient reason to question my veracity. If Mr. Godrich wish further evidence on the point, I have no doubt any member of the medical staff of the North-Eastern Hospital for Children will satisfy him that they have been accustomed to use the guarded trocar for a longer period than that mentioned above.

Mr. Godrich says he cannot believe that "any amount of suction would be sufficient to rupture any vessels, however delicate". Such a statement will surprise every one acquainted with the operation of "dry cupping", or even the schoolboy feat of sucking blood from the arm by means of the mouth. It may be that the vessels of serous cavities do not bleed naturally; but in the cases to which I allude the natural state of things no longer exists. We have an abnormal tissue, *i. e.*, the false membrane lining the pleural cavity, highly vascular, the vessels having walls of the most delicate character, many of them consisting of only one or two layers of epithelium. Moreover, the natural quiescent state is departed from, in that we have the complete exhaustion natural to all serous cavities *plus* the suction-force of the aspirator, which is something enormous in the case of the larger bottle-aspirators (such as are used in this hospital) when completely exhausted.

Every case of aspiration in this hospital points to the conclusion that the hæmorrhage is due to suction. The same day that my last letter appeared in the BRITISH MEDICAL JOURNAL, I assisted Dr. Sansom to aspirate in a case of congenital hydrocephalus. Towards the end of the operation, a little blood passed through the tube, which was undoubtedly due to suction, as the guarded trocar was used, and it is almost impossible that the cannula could have come into contact with the walls or floor of the ventricle. I am, etc.,

GEORGE BROWN, M.R.C.S., etc.,
House-Surgeon to the North-Eastern Hospital for Children.
September 23rd, 1874.

THE INDUCTION OF PREMATURE LABOUR.

SIR,—The publication of my paper on the Induction of Premature Labour, in the JOURNAL for August 8th, has given rise to two letters on the subject, in each of which the author gives the preference to his own method of performing that operation, as being the safest and most expeditious. Mr. Draper gives the particulars of one case in which the employment of the elastic bags, as recommended by Dr. Barnes, was attended with the happiest results; Mr. Clogg of two, in which a like result attended the old fashioned method of puncturing the membranes. To this I can only reply, that it is impossible to come to any definite conclusion on such a point from the experience of two or three cases only. We all know how easy it is to provoke uterine action in some patients, and how difficult it is to do so in others. The point upon which I wished especially to insist in my paper was, that the quickest mode of inducing premature labour is not always the best. I once, in a case of puerperal convulsions, where prompt delivery seemed the only chance for the patient, dilated the os uteri, turned, and delivered the child in less than an hour; but I do not recommend such a proceeding in any ordinary case where one wishes to induce premature labour. I believe the safest and best plan in such a case is to let the artificial delivery resemble as closely as possible a natural one under similar cirumstances. I believe the same rule holds good with regard to the use of the forceps. For instance, unless there be some special indications for prompt delivery, it is not well, especially in primiparæ, to render the last process of delivery by the forceps more expeditious than a perfectly normal and natural labour would be.

Mr. Clogg objects to my statement "that, to puncture the membrane before there is any dilatation of the os, is to put the cart before the horse and to invert the process of labour", on the ground that a natural labour sometimes commences with rupture of the membranes, and yet will terminate favouably. Undoubtedly this is sometimes the case, but yet it is not the general rule, and we can all of us, no doubt, remember how tedious such cases are apt to be, especially in primiparæ. The chief objection I have to commencing the labour by puncturing the membranes, is that such a method often compromises the safety of the child. For expeditious delivery, the best plan, no doubt, is to use Dr. Barnes' dilators, as in Mr. Draper's case; but, for other reasons, which I gave in my paper, I generally prefer the carbolised sponge-tents. I am, etc., J. G. SWAYNE.

74, Pembroke Road, Clifton, Bristol.

THE TREATMENT OF OUT-PATIENTS.

SIR,—Personalities can never, I think, serve any useful purpose; and Mr. Wagstaffe must, therefore, excuse me if I do not attempt to defend myself from the charge of being splenetic, and if I leave it to the judgment of the profession to determine whether I am honestly attacking the abuses of the out-patient department or not. Besides, as I hope to accept his invitation to visit him at his *clinique* some day soon, it is quite unnecessary to occupy your valuable space with any merely personal matters.

Whilst this correspondence has been going on, two more cases have come under my observation, which seem to illustrate still further the abuses to which the present system is liable. One was the case of a rickety child, two years old, with considerable deformity of the chest, prominence of the clavicles, and curvature of the spine, who was taken to one of our large hospitals in May last, and seen, according to the mother's account, "by two boys", who informed her that the child had had a fall, and had broken both its collar-bones and several of its ribs. The mother denied that the child could have fallen without her knowledge; but the young gentlemen, nevertheless, proceeded to bandage the infant so tightly that next day it was blue in the face. The mother, not feeling satisfied, took the child to a practitioner whom she had previously consulted, and, as he could not detect any fractures, the bandages were, at his suggestion, discontinued. When I saw the case among my dispensary patients, at the end of August, there was no evidence that I could detect of either united or ununited fractures; and seeing that my opinion was shared by other medical men, I do not think it a sin against either charity or courtesy to state my conviction that in all probability there had not been any fracture at all.

The second was an infant a fortnight old, who was brought to me, last week, with both eyes irretrievably damaged as the result of purulent ophthalmia, one cornea having completely sloughed away. This child was, up to the time of my seeing it, under the care of a student from one of the hospitals, who had attended its mother in her confinement, had prescribed some lotion for the child's eyes, and had assured the anxious parents that its eyes were going on all right.

I have purposely omitted to state the names of the hospitals where these two cases were attended, as I cannot undertake to enter into any prolonged correspondence about them; and, in conclusion, I would ask those of your readers who are officially connected with hospitals, to consider, whether it is for the credit of the profession that a system under which such cases are even possible should continue to exist, without any attempt at reform on the part of those who are best acquainted with its working.—I am, etc., H. NELSON HARDY.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SUSPENSION OF A MEDICAL OFFICER.

AT a meeting of the Portsea Island Guardians on September 30th, it was decided that their medical officer, Dr. Diver, should be suspended on the grounds that the Visiting Committee, having heard that several *post mortem* examinations and surgical operations on dead bodies had been made at the union-house by Dr. Diver, considered that such examinations and operations had been made without the knowledge or sanction of the guardians. We believe that a government investigation is about to be instituted to inquire into the truth of the allegations against Dr. Diver.

SANITARY NEGLECT IN HIGH PLACES.

THE sanitary condition of certain portions of the Aberdare and Merthyr districts has recently attracted the attention of the local press, and a special commissioner has written a series of excellent articles on the subject in the *Western Mail*. In concluding his remarks, the commissioner says that for the most serious and injurious conditions which have come under his observation men occupying the highest positions are responsible; sanitary neglect being largely traceable to members of parliament, justices of the peace, and other local magnates, who have not the plea of poverty to put forward as an excuse for their glaring shortcomings. The strong terms in which the conditions of sanitary neglect in these districts are denounced, are borne out by the statement of the chairman of one of the authorities, to the effect that the increasing mortality is due to the entire absence of drainage. A communication has also been addressed to the Aberdare authority by the Local Goverment Board, in which the central authority asks for an explanation as to the alarming mortality which is resulting from epidemic disease.

APPOINTMENTS.

ANDREW, J. Lawton, L.R.C.P.Ed., appointed Medical Officer of Health for the Moseley and Stayley Urban Sanitary Districts.

CUNNINGHAM, John, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the West District of the Belford Union, Northumberland, and Medical Officer to the Workhouse, *vice* H. Hunt, L.R.C.P.Ed., deceased.

DAVIES, John, M.D., re appointed Medical Officer and Public Vaccinator for the Llangonoyd District of the Neath Union.

FAGGE, Herbert William, M.R.C.S.Eng., appointed Medical Officer to the Workhouse and No. 1 District of the Lutterworth Union, *vice* H. W. A. Coleman, M.D., resigned.

GRAMSHAW, Farbrace S., M.D., appointed Medical Officer and Public Vaccinator for the Stillington District of the Easingwold Union, Yorkshire, *vice* W. Teasdale, M.R.C.S.Eng., resigned.

NOAKE, Samuel J., L.R.C.P.E., appointed Medical Officer for the Whitkirk District of the Hunslet Union.

WRAITH, John H., M.R C.S., appointed Medical Officer to the Darwen Rural Sanitary District of the Blackburn Union.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-GENERAL C. A. GORDON, M.D., C.B., has left England for India, to assume his duties as Principal Medical Officer of the Madras Army.

SURGEON-MAJOR PORTER, assistant-professor of military surgery at the Royal Victoria Hospital, Netley, has been presented with the bronze cross by the French Societies for Aiding the Sick and Wounded in War, in recognition of his services during the late Franco-German War.

ANOTHER of the now small band of the survivors of the Peninsular War and the Battle of Waterloo, Dr. Matthias Kenny, has just died, in his eighty-eighth year, at his residence, Monkstown, Dublin. Dr. Kenny served in the Royal Artillery, and his appointment as Assistant-Surgeon in the army was dated December 1st, 1810. He held the Waterloo medal. Since his retirement, he had been a justice of the peace for County Clare.

NEW ARRANGEMENTS AT ALDERSHOT.—From October 1st, the regimental hospital establishment ceases to exist at Aldershot, and three "Station Hospitals" are formed at the Camp instead. One is at the North Camp, one at the South Camp, and one at the Permanent Barracks. A medical officer, termed the senior, is appointed to each, who is responsible for the medical administration, under the principal medical officer of the division. A certain number of medical officers are appointed to assist the seniors in performing the various duties. In accordance with recent War Office regulations, all documents connected with the Army Hospital Corps at Aldershot are at once to be handed over to the charge of Captain of Orderlies F. Philpot, the Staff Officer of the corps at the station.

ARMY MEDICAL SCHOOL.

THE introductory lecture on the opening of the Winter Session of the Army Medical School at Netley was delivered by Professor Maclean, C.B., on the 1st instant. The principal subjects of the address were the past and present condition of life of British troops in India, and the changes which have taken place in professional views regarding some of the leading Indian diseases, their causes, and treatment. The contrast between the hygienic conditions under which the troops habitually lived in former days, and the conditions which exist at present, was exhibited in very forcible and striking language. The staff of the hospital and about forty candidates for commissions in the several military medical services were present. Among the visitors were Surgeon-General Mouat, C.B., V.C., Principal Medical Officer of the Southern District, and various medical officers from Portsmouth and the neighbouring stations.

THE ARMY MEDICAL DEPARTMENT.

SIR,—The letters which have appeared, from time to time, in your JOURNAL, indicate a strong feeling of dissatisfaction among a portion at least of the members of the Army Medical Department. Before improvements can reasonably be hoped for, however, it would seem to be needful that officers should be agreed as to the nature of their grievances, and the steps which they would propose by way of remedy. There seems, at present, to be some want of accord on these points. For example, in the same number of the JOURNAL, "A Surgeon-Major" complains that his regimental associations only involve him in large outlay, and place him in a derogatory, degrading, and most humiliating position"; whilst, in the same column, an "Old Army Surgeon" deplores unconditionally his enforced severance from the society and home to be found in a regiment! In the nature of things, the same conditions will scarcely commend themselves alike to the man of mature age and the novice. Those who are still young see much that is desirable in the association of regimental life, whilst the "old hand", who has outlived the glamour of the thing, inclines to be weary of mess society, and, if married, is apt to find his share of entertaining and keeping up the "credit of the regiment" a serious tax upon his scanty emoluments, without any commensurate advantage. An additional reason for the greater popularity of regimental life among juniors, is to be found in the fact, that so long as their rank is not higher than that of the general body of regimental officers, there are few occasions when their *amour propre* is likely to be wounded; but, when the relative rank of field officer causes the interests of the seniors to conflict with those of the higher regimental authorities, they cannot be certain of enjoying this immunity.

The complaint of a "Surgeon-Major", with respect to the pecuniary demands made upon him, seems to be well founded. But little, if at all, identified with the regiment to which he is attached, he is called upon to contribute largely towards expenses which he has no interest in incurring. Under the old system, in which medical officers were supposed to form part of the regiment in which they held a commission, there was some show of propriety in these demands, although, even then, he was not on a parity with other regimental officers in these matters. For, while the (so-called) combatant officer might, and commonly did, spend his whole period of service in the corps to which he was posted as a lad, the medical officer was not only compelled to leave it on promotion, but, with scanty consideration for his vested interests, was frequently "transferred for the benefit of the public service", and to his own disadvantage. How, under existing circumstances, medical officers can, with justice, be compelled to contribute towards the expenses of entertainments given by corps, of which they are only permitted to wear the uniform until it is worn out, and to which they are only attached, and do not belong, is a thing past understanding.

The unification scheme would not seem to have worked satisfactorily so far, but the question remains, Is it desirable to perpetuate, in time of peace, a system which it is known is inapplicable in time of war, and must collapse under the exigencies of active service? Such a course, with reference to any other branch of the service, would be thought indefensible. Why should it be thought applicable to the Army Medical Department? A systematic discussion of existing evils and their remedies in your columns, would seem calculated to be of great advantage to the service. But it must not be overlooked that most admirable schemes for the improvement and amelioration of the department, and possessing but one fault, are frequently propounded. The one fault is, that they are totally impracticable.

I would venture to suggest that the point for discussion at present, would seem to be, how can the requirements of the unification scheme be made to accord with the personal interests of medical officers? and, to conclude a letter already far too long, propose for consideration, the substitution, as far as possible, of local for regimental hospitals.

I am, etc. S. S. M.

NAVAL MEDICAL APPOINTMENTS.

Colan, Staff-Surgeon Thomas, M.D., to the *Unicorn*.
Coogan, Staff-Surgeon (second class) John, to the *Fisgard*.
Sutherland, Staff-Surgeon (second class) J. W. G., to the *Fisgard*.

OBITUARY.

WILLIAM WEBSTER FISHER, M.D.,

DOWNING PROFESSOR OF MEDICINE IN THE UNIVERSITY OF CAMBRIDGE.

Dr. W. W. Fisher, Downing Professor of Medicine at Cambridge, died October 4th at his lodge in Downing College. He was entered in the year 1827 at Trinity, of which College his brother, the Rev. John Hutton Fisher, was then Fellow and Assistant Tutor. Subsequently he removed to Downing, where he graduated as M.B. in 1834. Shortly afterwards he succeeded to a Fellowship; but, the Downing Professorship of Medicine falling vacant in 1841, Mr. Fisher was elected, and resigned his Fellowship. He, however, held some of the College offices, being Steward and Librarian up to the time of his death. The late Professor took the degree of Doctor of Medicine in 1841, and acted for many years as one of the university examiners of students in medicine, and was an *ex officio* member of the University Board of Medical Studies. In addition to fulfilling the duties of his Professorship, Dr. Fisher for some years had a large and lucrative practice as a physician at Cambridge, where he was held in high repute. He was formerly one of the physicians to Addenbrooke's Hospital, and, on resigning that post was appointed consulting physician to that institution. Although for some time he relinquished the practice of his profession, yet he discharged his duties as Professor until the year 1868, since which time his lectures have been delivered by a deputy, Dr. P. W. Latham, late Fellow of Downing College. Dr. Fisher for upwards of a quarter of a century regularly delivered courses of lectures on Materia Medica, Pharmacy, and Therapeutics, which were well attended. Professor Fisher was a Fellow of the Cambridge Philosophical Society and a contributor to its *Transactions*. He was highly esteemed in the University not only on account of his professional attainments, but likewise for his conversational powers. The Downing Professorship was founded in 1800 by Sir George Downing, of Gamlingay Park, the founder of the College, which also bears his name; and the first Professor, Dr. Busick Harwood, was nominated by the will of the founder. The electors now consist of the Archbishops of Canterbury and York, the Masters of St. John's, Clare, and Downing College, Cambridge; and by the statutes of the College any vacancy must be filled up within two months. Any graduate in medicine of one of the universities of the united kingdom being over twenty-five years of age is eligible for the appointment. The Professorship is not vacated by marriage or by the possession of any property, and the holder of the office can hold any of the lay offices of the College in addition. The stipend is about £600 per annum, with an addition of a commodious residence in the College.

JOHN HOWARD NORTON, M.D., Nantglas, Llanelly.

Dr. John Howard Norton was the son of Mr. Charles Barron Norton, an army surgeon, and was born at Eyam, Derbyshire, May 26th, 1815. He entered the medical classes of Edinburgh, and graduated as M.D. in 1842. The same year, he became L.R.C.S.Edin.; he further continued his medical studies in London, and became a L.S.A. in 1843. After pursuing for some time his medical studies in the hospitals of Paris, he settled at Palermo, where he became a member of the University of Palermo, and held some medical appointment under the Neapolitan Government.

After two years' residence at Palermo, he returned to England, and entered into general practice at Shirley, Hants, where he lived for seven years, and then removed to Amroth Castle, Pembrokeshire. In this capacious building, with well adapted grounds near the sea-shore, Dr. Norton undertook the management of a private lunatic asylum with a fair degree of success; but, at the end of five years, he relinquished this branch of the profession.

About this time, his attention was directed to a coal district, in which he thought he saw a good opportunity of acquiring wealth, and the correctness of this opinion subsequent events have fully verified. About fifteen years ago, he became lessee of certain coal-mines at Mynydd Mawr, Carmarthenshire, which he most successfully developed with great advantage to the neighbourhood as well as to his own family. Though he had retired from medical practice for several years, Dr. Norton took a humane interest in the welfare of the miners in his employ, and often rendered them medical aid. He enjoyed good health until about the summer of last year, when symptoms of failing digestion showed themselves; these were supposed by himself to depend upon the exhalations of lead arising in a newly painted house. From the time mentioned, he gradually lost flesh and strength, but not so rapidly as to occasion any anxiety in his own mind. Last March, during an aggravation of his symptoms, he discharged a large quantity of blood by the mouth and from the bowels. He recovered moderate health after this attack, but not such as he had been accustomed to. During a recent visit to London, he consulted an eminent physician respecting his gastric symptoms, and the opinion he formed was, that they indicated only severe functional disturbance. He returned from London on July 22nd, suffering from severe neuralgic pains in the course of the right sciatic nerve and in the right shoulder, and, on the early morning of July 31st, a remarkable change took place in his condition; severe pain, felt in every part of his body, came on; a large discharge of blood from the stomach took place, with a very quick pulse, great heat of skin (103.6), which, notwithstanding, showed pallor. From being a very ready speaker, he suffered from aphasia, and could not fully express himself in words. Symptoms of extreme prostration and of restlessness accompanied and went on increasing, until, at the end of forty-four hours, he quietly breathed his last. On the day before the serious change in his symptoms, he foresaw that his disease was going to be fatal, and he was resigned to the will of God.

In the death of Dr. J. H. Norton, a large number of persons feel that they have lost a good friend and a hospitable neighbour. Though he had retired from the actual practice of his profession, he continued a member of the British Medical Association, and often attended the meetings of the South Wales Branch of the Society. He never ceased to take a warm interest in everything connected with the advancement of medical science, and was a well known member of the Medical Club, London.

Dr. Norton had been a widower since 1871, and he has left three sons and three daughters to lament his loss.

CHARLES CHRISTOPHER HAYMAN, M.D.

It is with deep regret that we announce the early death of this esteemed and well known physician, who died on August 2nd, at West Malling, Kent, after a painful and lingering illness. He was the youngest son of Mr. Charles Dell Hayman, formerly a surgeon in extensive practice at Axminster, and was born in 1826. In 1846, he commenced his professional education at the Middlesex Hospital; in 1849, he became a Licentiate of the Apothecaries' Company, and, in 1850, a member of the Royal College of Surgeons of England, and forthwith commenced practice at West Malling. In 1853, he took his doctor's degree at King's College, Aberdeen, and in 1860 he became a Licentiate of the Royal College of Physicians of Edinburgh.

In 1854, Dr. Hayman was attacked with congestion of the apex of the left lung, with hæmoptysis, and from that time his health gradually declined until 1860, when he was advised to remove to Eastbourne. His strength gradually returned, and, for nearly fourteen years, he was able to attend to the pressing claims of a rapidly increasing practice.

About four years ago, symptoms of Bright's disease manifested themselves; but he still worked on, until last autumn, when he was compelled to give up the chief part of his duties to his son, Dr. Charles Norton Hayman.

Eastbourne has sustained a great loss by the death of Dr. Hayman, who was not only highly valued in his professional capacity, but also for his zeal and activity in promoting the general interests of the town. During the epidemic of scarlet fever which raged in Eastbourne in 1863, Dr. Hayman exerted himself far beyond his strength, and it was chiefly by his instrumentality that the sanitary improvements, especially with regard to drainage, were carried out, which have since made Eastbourne so celebrated as a health resort. He was one of the early promoters, if not the originator, of the Eastbourne College, which is increasing in prosperity every year; he was chairman of the Workmen's Hall, President of the Cricket Club, and an active member of the Board of Guardians.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

Dr. Bradbury's Lectures.—The Linacre Lecturer in Medicine gives notice that he will lecture on Pathology, in the Old Anatomical Schools, on Tuesdays, at 10 A.M., during the Michaelmas Term, commencing on Tuesday, October 13th.

Dr. Humphry's Lectures.—The Professor of Anatomy (Dr. Humphry) commenced his course of lectures on Practical Anatomy on Thursday, October 8th, at 9 A.M., to be continued daily. The course on Anatomy and Physiology will commence on Friday, October 23rd, at 1 P.M., and be continued on Tuesdays, Thursdays, and Saturdays, at the same hour. The latter course is intended for students in natural science, as well as for students in medicine, and is open without fee, except to those requiring a certificate.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 1st, 1874.

Bullen, Beresford Henry, 89, Upper Kennington Lane
East, George Edward, Hounslow
Greenwood, John William, Preston, Lancashire
Jones, William Makeig, Blaenavon, Monmouthshire
Morgan, George, Pontypool, Monmouthshire.

MEDICAL VACANCIES.

The following vacancies are announced:—

ATHERSTONE UNION—Medical Officer for the Polesworth District: £60 per annum.

ATHV UNION, co. Kildare—Medical Officer for the Workhouse Infirmary and the Fever Hospital: £140 per annum. Application, 14th instant, to A. J. Dunne, Clerk of Union.

BANGOR and BEAUMARIS UNION—Medical Officer and Public Vaccinator for the Anglesey No. 1 District: £85 per annum, and fees. Applications, 13th instant, to John Thomas, Clerk, Bangor.

BATH UNION—Medical Officer and Public Vaccinator for No. 6 District: £40 per annum, and fees. Application, 12th instant, to H. P. Hulbert, Clerk.

BIRKENHEAD BOROUGH HOSPITAL—Junior House-Surgeon: £60 per annum. Applications, 12th instant, to Chairman of Weekly Board.

BRIDGNORTH UNION, Salop—Medical Officer for No. 3 District: £70 per annum; and the Workhouse, £27 per annum. Applications, 16th instant, to William Reynolds, Clerk.

CAMBRIDGE UNIVERSITY—Downing Professor of Medicine.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon: £80 per annum, board and lodging. Applications, 13th instant, to the Secretary.

CEYLON—Medical Officer to the Medical Aid, Pussilava District. Application to R. B. Portal, Esq., 2, Idol Lane, Tower Street.

COUNTV AND COUNTV OF THE BOROUGH OF CARMARTHEN DISPENSARY—Resident Medical Officer: £100 per annum, with board, lodgings, coal, gas, and light; or £120, with lodgings, fuel, and light only.

DAVENTRV UNION—Medical Officer and Public Vaccinator for No. 5 District: £40 per annum, and fees. Application, 13th instant, to George Norman, Clerk.

DENTAL HOSPITAL OF LONDON, 40, Leicester Square, W.C.—Dental House-Surgeon. £40 per annum. Applications, 14th instant, to G. A. Ibbetson, Honorary Secretary.

FISHERTON HOUSE LUNATIC ASYLUM, Salisbury—Assistant Medical Officer: £100 per annum, board and lodging. Applications to Dr. Finch.

GLASGOW MEDICAL MISSION—Superintendent: Not less than £250 per annum. Applications, 12th instant, to William Sloan, Secretary, 73, Gordon Street, Glasgow.

JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer: £120 per annum, with furnished rooms, attendance, coals, and gas.

KENT—Public Analyst: 21s. per analysis for the first hundred; 10s. 6d. per analysis for the second hundred; 6s. per analysis beyond. Applications, 12th instant, to F. Russell, Clerk of the Peace, Maidstone.

KENT LUNATIC ASYLUM, Chartham, near Canterbury—Medical Superintendent: £600 per annum, house, etc Application, 28th instant, to John Callaway, Clerk to the Committee, Canterbury.

KING'S COLLEGE HOSPITAL—Assistant-Physician.

KING'S COLLEGE, London—Professor of Physiology.

LAMBETH, Parish of—Resident Medical Officer and Dispenser, Infirmary, Princes Road: £100 per annum, board, apartments, etc. Applications, 12th instant, to W. B. Wilmot, Clerk, Brook Street, Kennington Road.

LANCASHIRE GAOL, Lancaster Castle—Surgeon. Application, 31st instant, to Messrs. Birchall and Co., Deputy Clerks of the Peace, Preston.

LANCASTER INFIRMARY and DISPENSARY—House-Surgeon: £100 per annum, apartments, etc. Applications, 12th instant, to the President.

MOHILL UNION, co. Leitrim—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rynn Dispensary District: £120 per annum, and fees. Application, 20th instant, to Francis Gearty, Honorary Secretary, Furnaloughta, Dromod.

NEW ROSS UNION, co. Kildare—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Arthurstown Subdistrict of the Fethard Dispensary District: £100 per annum, and fees. Application, 15th instant, to James Houghton, Honorary Secretary, Duncannon.

NEWTON ABBOT UNION, Devon—Medical Officer and Public Vaccinator for No. 9 or Dawlish District: £53 per annum, and fees. Applications, 13th inst., to John Alsop, Clerk.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill—Junior Resident Medical Officer during remaining stay of present Senior, and Senior Resident Medical Officer afterwards, and Wife as Superintendent of Nurses: £250 first year, £300 a year afterwards, board, rooms, etc. Applications, 21st instant, to Ralph Hordley, Secretary.

NORTH RIDING LUNATIC ASYLUM, Clifton, York—Assistant Medical Officer.

RAMSGATE and ST. LAWRENCE ROYAL DISPENSARY—Resident Medical Officer: £100 per annum, furnished apartments, etc. Application, 20th instant, to A. R. Emmerson, Secretary.

ROYAL INFIRMARY, Glasgow—*Two Physicians.—*Two Surgeons.

ST. GEORGE'S HOSPITAL—Visiting Apothecary. Applications, 14th October, to C. L. Todd, Secretary.

ST. MARY'S HOSPITAL, Paddington—Assistant Dispenser: £60 per annum. Applications, 12th instant, to the Secretary.

STRANORLAR UNION, co. Donegal—Medical Officer, Public Vaccinator, etc., for the Stranorlar Dispensary District: £100 per annum, and fees. Applications, 12th instant, to John Gunning, Honorary Secretary.

TUNBRIDGE WELLS DISPENSARY and INFIRMARY—House-Surgeon and Secretary: £100 per annum, board, furnished apartments, etc. Application, 14th instant, to B. Rix, Secretary.

UNIVERSITV COLLEGE, London—Professor of Comparative Anatomy and Zoology. Applications, 31st inst, to John Robson, B.A., Secretary to Council.

VICTORIA HOSPITAL FOR SICK CHILDREN, Chelsea—House-Surgeon and Registrar: £31 per annum, board and lodging. Application, 12th instant, to Captain H. B. Scoones, Secretary.

WEST BROMWICH DISTRICT HOSPITAL—House-Surgeon: £80 per annum, board, residence, and washing. Application to P. D. Bennett, Hon. Sec.

WESTERN GENERAL DISPENSARV—Resident Dispenser: £84 per annum to commence, with furnished apartments, fuel, and lights.

WESTMINSTER HOSPITAL—Physician; Assistant-Physician. Applications, 13th instant, to F. J. Wilson, Secretary.

WESTRAY and PAPA WESTRAY, Orkney—Parochial Medical Officer: £50 per annum, and house and private practice. Applications to James Scott, Inspector of Poor.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Anderson, James W., M D., appointed Assistant-Physician to the Royal Infirmary Dispensary, Glasgow, *vice* D. Campbell Black, M.D., resigned.

Cameron, John, M.B., Assistant Medical Superintendent of the Crichton Institution, Dumfries, appointed Medical Superintendent of the Argyll and Bute District Asylum.

Greensall, Edward S., M.R.C.S.Eng., appointed House-Surgeon to the Royal United Hospital, Bath, *vice* W. J. Roeckel, M.R.C.S.Eng., whose appointment has expired.

Mackenzie, Lewis, L.R.C.P.Lond., appointed Resident Medical Officer to the London Hospital, *vice* W. A. Kibbler, L.R.C.P.Lond., resigned.

Middleton, William Henry, L.K.Q.C.P.Irel., appointed Medical Officer to the Westmeath County Infirmary, Mullingar, *vice* J. Ferguson, M.D., deceased.

Parry, Thomas S., M.R.C.S.Eng., appointed Assistant Resident Medical Officer at the Hospital for Consumption, Brompton, *vice* J. P. Bartlett, M.R.C.S.Eng., resigned.

Stewart, Donald, M.B., appointed House-Surgeon to the Blackburn and East Lancashire Infirmary. *vice* H. Williams, M.R.C.S.Eng., resigned.

White, W. Leavens, M.B., C.M., appointed Resident Medical Officer to the Southport Convalescent Hospital, *vice* R. Musgrave Craven, M.R.C.S., resigned.

White, W. Leavens, M.B., appointed Resident Medical Officer and Superintendent of the Southport Convalescent Hospital, *vice* R. Craven, F.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

MARRIAGES.

Ewald—Tracy.—On Thursday, October 1st, at St. Stephen's, Westbourne Park, by the Rev. Henry Buttiscombe, M.A., assisted by the Rev. J. T. Rowsell, M.A., the Vicar, Chaplain in Ordinary to the Queen, Henry, the youngest son of the late Rev. F. C. Ewald, D.D., to Frances Mary, eldest daughter of S. J. Tracy, L.R.C.P., M.R.C.S., of 69, Ladbroke Grove, Kensington Park.

Hamilton—Chinas.—On September 24th, at St. John's Church, Alex. Hamilton, L.R.C.P.E., of Chester, to Bertha Anne, youngest daughter of the late George Chinas of Chester.

Wilcox—Goring.—On Thursday, September 5th, at East Bradenham, by the Rev. G. R. Winter, Vicar of Swaffham, assisted by the Rev. Lewis Bagot, Rector of the above parish, *William Wilcox, L.R.C.P.Edin., of North Walsham, Norfolk, to Emily, daughter of Charles Goring, Esq., East Bradenham, Norfolk.

DEATHS.

Carpenter, William, M.D., Staff-Surgeon Indian Army, at Morar, Gwalior, aged 30, on August 16th.

*Chuckerbutty, Soorjocoomar Goodeve, M.D.Lond., M.R.C.S.E., Surgeon-Major of the Bengal Army, Professor of Materia Medica and Clinical Medicine at the Medical College, Calcutta, etc., at 72, Abingdon Road, Kensington, on September 29th. Friends will kindly receive this intimation.

Mr. H. C. Burdett, late Secretary and Superintendent of the Queen's Hospital, Birmingham, has been appointed Secretary of the Seamen's Hospital. There were 134 candidates.

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* These appointments are postponed pending arrangements as to the position which clinical instruction in the Royal Infirmary is to occupy in connection with the obtaining of degrees in the University.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Surgeon Augustus Hall, R.A., "On the Treatment of Cholera by the Subcutaneous Injection of Chloral Hydrate"; Dr. Bakewell, "Aneurism of Abdominal Aorta of unusual size".

WEDNESDAY.– Hunterian Society, 8 P.M. Dr. Richardson, F.R.S., "On the Pathological Results of Pectous Change in Colloidal Structures".

THURSDAY.—Harveian Society of London, 8 P.M. Mr. Henry Power, "On Purulent Ophthalmia".

FRIDAY.—Medical Microscopical Society, 8 P.M. Opening Meeting of the Session, at the Royal Westminster Ophthalmic Hospital.

EXPECTED OPERATIONS AT THE HOSPITALS.

WEST LONDON HOSPITAL, Tuesday, October 13th, at 3 P.M. Lithotomy, by Mr. Cooper.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

"PRESSURE ON SPACE."

DR. MUNRO, CUPAR FIFE.– Dr. Munro's paper on "Various Uses of the Calabar Bean" shall have very early insertion. We regret the delay to which it has been subjected. "Pressure on space" is the chronic state of every prosperous journal. The successive enlargements of the JOURNAL have done little to abate it, for in proportion as they have increased the number of our readers, the popularity of the JOURNAL, and the area of permanent extension of the Association, they have brought a constantly increasing addition to the number of our contributors and correspondents. The addition of an "extra number" during the week of the annual meeting could do nothing to abate the pressure. We printed at that period a sixteen-page supplement; but the more the space at command, the greater the variety of correspondence addressed to us. We have always in hand material to fill journals for many months ahead. Out of this material we have to make a weekly selection. Sometimes, we fear, excellent matter is unduly postponed to allow of the completion of a subject which is being at the moment actively debated, or to bring forward new information on topics which are of special interest at the time. Authors will therefore not consider that postponement implies a depreciation of the value of their original papers. Actuality and variety of interest are important considerations which often affect an editorial decision. We never complain of being "reminded" of papers which it is thought have not received sufficiently early attention: we have only to complain that authors do not always sufficiently consider that a case which is the "first in their practice", is not therefore always worth recording; and that in publishing clinical reports, much is often inserted which belongs to the daily routine of practice, and is related to the points of special interest which the record is intended to bring under notice. Brevity, we may once more say, is a very great recommendation to papers of the highest merit, and will always be felt by busy readers, as a proof that the author has considered them as well as himself.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

AN APPEAL.

SIR,—Having been requested by the Committee of the British Medical Benevolent Fund to visit Mrs. Lewis, of 9, Gloucester Terrace, Margaret Street, Haggerston, I found her and two daughters in a very scantily furnished room, braiding buttons; and, on inquiry, learned that, working from 7 A.M. till late at night, the three together earned the magnificent sum of half-a-crown a week. She had not tasted meat for three months, but had lived almost entirely on bread and dripping. Her husband, Dr. T. C. Lewis, who was M.D., F.R.C.S.E., L.A.C., Surgeon to the Queen's Own Tower Hamlets Militia, died suddenly in 1854 of diseased heart, aged 35, leaving policies on his life, which were, unfortunately, invested in Westminster Improvement Bonds, which, by their failure, brought ruin and misery to hundreds. His father, grandfather, uncles, great-uncles, and cousins, were officers in the Army, Navy, Marines, and Royal Artillery, for more than a century: many of them fell in battle, and from the effects of climate. One of the family was aide-de-camp to his late Majesty King William IV. The family of the widow was equally well connected. Nevertheless, she is old and in failing health—in fact, gradually sinking from disease and insufficient food. The grant of £10 from the British Medical Benevolent Fund, which I have doled out in small weekly sums, is exhausted; and, by the rules of the Fund, she cannot have another grant till next year, so numerous and so urgent are the demands upon it. I therefore venture to appeal in her behalf to any who will send contributions either to the Editor of the JOURNAL or myself. I am, etc., D. DE BERDT HOVELL.

Five Houses, Clapton, Middlesex, E., August 27th, 1874.

"Sir,—I have just received the contributions in behalf of the widow and daughters of the late Dr. T. C. Lewis, which you have acknowledged in the JOURNAL, amounting to £6 10s. I am much obliged to you for the trouble you have taken, and beg to state that I have received, in addition, the following sums.

	£	s.	d.
A. W. Moore, Pimlico	0	10	0
J. F. Wilton, Folkestone	1	1	0
D. Davies, St. Leonards	1	1	0
A Friend	2	0	0
R. B. Ruddock, Richmond Hill	0	5	0
Dr. Bull, Hereford	3	3	0
H. Stear, Saffron Walden	2	0	0
A. R. Graham, Weybridge	0	10	0
W. Martin, Hammersmith	1	1	0
R. Barker, Sunderland	0	10	0
T. Prichard, Northampton	5	5	0
J. Liddle, Bow Road	1	1	0
Dr. P. H. Pye-Smith, Finsbury Square	2	0	0
W. Gayton, Homerton	0	10	0
W. T. King, Victoria Park Road	0	10	6
Mrs. Astle, (Stoke-upon-Trent)	1	15	0
E. M.	0	10	0
F. M.	1	5	0
J. R. Clouting, Thetford	0	5	0
James Adams, Finsbury Circus	1	1	0
Dr. Clapton, St. Thomas Street	2	2	0
Total	£28	5	6
Amount received by the Editor	6	10	0
Amount received by me	28	5	6
	£34	15	6

"I am, etc., "D. DE BERDT HOVELL.

"Five Houses, Clapton, E., September 30th, 1874."

*** Further contributions will be thankfully received by Dr. D. de Berdt Hovell, or by the Editor of the BRITISH MEDICAL JOURNAL, at the office, 36, Great Queen Street, Lincoln's Inn Fields, W.C.

THE CONJOINT SCHEME.

OUR respected correspondent Mr. Thos. Green of Bristol is apparently unacquainted with the protracted and mature consideration which has been given to the subject of the "Conjoint Scheme" by the Council of the College and the Universities, and of the resolutions long since arrived at by all to carry out the scheme. We would ask him to refer back to the proceedings of the General Medical Council for the last three years, and to the various articles giving information of the progress of the subject during that period. His MS. shall, if he wish it, be forwarded to the President of the College; but it is, we think, too late to reopen the discussion in these pages at the stage to which he would carry it back.

A CORRESPONDENCE AND APOLOGY.

WE have before us a printed copy of a correspondence commenced by the Rev. Mr. Jackson, Rector of Ledbury, with an intemperate and unjustifiable attack upon a medical man of the vicinity. The matter ended with a submission by Mr. Jackson to the public statement that his charges and language were alike unjustifiable, and to the payment of costs incurred in the preliminary legal proceedings instituted against him, and of a sum of £100, paid, by direction of the gentleman whom he had libelled, to the Ledbury Cottage Hospital.

FOREIGN VACCINATION REGULATIONS.

SIR,—In answer to a notice in your valuable paper September 26th, 1874, page 424, signed "H. C. L.", I beg to state that the laws respecting vaccination in Saxe-Meiningen are considered as the best in Germany; and that those of the German Empire, lately issued, are rather an imitation of the former. If Mr. H. C. L. understands German, I shall be most happy to forward to his address the regulations referring to the question, printed, and gratis, in the interest of the profession. I am, etc.,

PROFESSOR HEGEWALD, M.D., in the Civil Service of H.R.H. the Duke;
Member of the B. M. Association.

Meiningen, September 28th, 1874.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

MEDICAL TITLES.

SIR,—In the JOURNAL of September 26th, a correspondent, "H. F.," inquires whether an M.D.Montreal and L.R.C.P.E can make use of the titles of Doctor and Physician, and an answer to the question is given in the affirmative. May I further inquire whether it is in virtue of the possession of the former or the latter qualification that, in your opinion, justifies the assumption of the designation of Doctor? If in virtue of the former, is a qualification which may be bought, but which finds no place in the *Medical Register*, regarded as reputable, and capable of investing its purchaser before the public with the same designation and status as the possessor of a qualification obtained in a proper manner from a recognised source? If in virtue of the latter, can such an indulgence be extended to ungraduated licentiates, members, or fellows, on any other ground than that of so-called *courtesy*, which must imply *discourtesy* towards universities that confer the Doctorate?

Sept. 30th, 1874. I am, etc., M.D.Edin.

⁂ Our answer to the question of H. F. assumed that the degree of M.D. in the case referred to was obtained after examination. It was not intended to be applicable to merely *bought* degrees; and as yet we know no reason for placing the degrees of the University of Montreal in this class. Foreign degrees, though incapable of being entered in the *Medical Register*, may yet be highly reputable; for instance, the degrees of M.D. of Paris, Berlin, Vienna, Pennsylvania, and various other universities, which confer their honours only after strict examination.

SIR,—From the frequent appeals made to you and to the editors of other medical journals, for an opinion about the use of the title of "Dr." by a L.R.C.P.Ed., it is very apparent that the question is one which excites a considerable amount of interest; and it seems deplorable that after such persistent ventilation the obnoxious subject remains *in statu quo*. The fact is, I believe, generally accepted by the profession, that you, as well as all your contemporaries, have pronounced the said use of the title "an act of impropriety". This is putting the verdict in its mildest form. Now I am bound to admit that this mild expression of opinion by the medical press has produced a wholesome effect upon many who hold the Edinburgh diploma, and they have conscientiously relinquished or ignored altogether the coveted title. To these we say "God speed". But what can be said of the unscrupulous few whose conscience will allow them to retain the title, blazing conspicuously on two and even three brass plates attached to their doors, and elegantly displayed on their visiting cards? It is this latter mode of conveying the deception to the unenlightened public which makes the practice so discreditable to the assumer, and so unfair to his professional neighbour, who happens to be a *bonâ fide* M.D., or who, like himself, holds the Scotch diploma, but scorns to avail himself of the questionable permission afforded by the College.

In a small town, where only two medical men reside, both possess this said diploma. One does not scruple to make the very best use in his power of the incorrect visiting card; the other, possessing also a conscience, introduces himself by his card as simply Mr. ——. In such a case, it must be evident which of the two stands the best chance of catching the unsuspecting stranger, where both are in the habit of calling upon all new comers. I am aware that, in the long run, the *ruse* does not generally succeed. Up to the present time this practice has been dealt with far too leniently by the medical press. Is it not a subject which the British Medical Association might fairly take in hand? I would suggest that a petition, signed by those members who object to the use of the title by licentiates, should be forwarded to the Council of the Association. Those members of the profession who are not personally affected by this deceptive practice carried on in their vicinity will doubtless be ready to recognise the unfairness of the system, and use their influence to destroy it. I am, etc., SCRUTATOR.

INTRODUCTORY LECTURES.

SIR,—As an old Bartholomew's man, I must beg to take exception to your remark that St. Bartholomew's is probably right in giving up the time-honoured custom of an opening address at the commencement of the session. The opportunity of a reunion of old and new students may surely be more profitably employed than in the mere act of dining together—a practice well enough in itself, but not more requisite to be observed on the 1st of October than on any other day in the year. I cannot imagine an occasion more full of interest to the body of students, young and old, than the first day of the session. The juniors are now brought into personal contact with some of the leaders of their newly chosen profession; their fellow-students are also before them, all more or less animated with a common zeal and purpose. What more appropriate than a brief welcome and a few words of encouragement and advice from those who have gone before them on the same road, and can stretch out a helping hand or hold up a warning light for the benefit of their younger brethren? I say nothing of the enthusiasm rekindled on the behalf of the particular school of medicine, or for the profession itself, by such a demonstration as was witnessed in the noble hospital of Guy's on its opening day; but, sir, I will venture to say such enthusiasm cannot well be despised. At St. Bartholomew's, which was in my day, and may be still, a very close corporation, the staff of teachers used to give in turn an opening address; but I must take leave to think this practice a mistaken one. It is not fair to expect comparatively young members of the professson to hold forth before their compeers and elders in council; but there could be no objection to enlist the eloquence or wisdom of others who are eminent teachers, though not necessarily connected with the school. Who would not have been glad to have heard the Linacre Professor of Physiology in Oxford University—himself an old St. Bart's man—give such an address, rather than simply see him preside at the annual dinner? This occasion might also well be chosen for distributing honorary awards, prizes, and scholarships, among the students; after which, let those who like go and dine. The "feast of reason and the flow of soul" is an excellent thing for keeping the London leaders *en rapport* with their provincial brethren, and is no doubt quite a harmless amusement; but to make it the Alpha and Omega of the 1st of October is almost worse than a mistake. I am, etc.,

October 3rd, 1874. A ST. BART'S STUDENT.

THE TREATMENT OF BRONCHITIS AND ASTHMA.

SIR,—I am surprised that Mr. Spurgin has received so many inquiries respecting a treatment which has been in vogue many years. I believe we are indebted to the late Dr. Hyde Salter for the treatment of asthma by iodide of potassium. Ever since the publication of his standard work on that affection, I have used the drug, combined with belladonna, etc.; but I cannot say the results have been uniformly favourable. I am, etc., ALPHA.

September 29th, 1874.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

SANITARY VALUE OF CERTIFICATES OF DEATH.

DR. CHILDS, the Medical Officer for Oxfordshire, in speaking of the value of the Registrar's returns as being indispensable to an officer of health in enabling him to discharge his duties efficiently by bringing to his knowledge the presence or absence of epidemic disease, says: "If these returns are to be used for anything beyond this, and employed to establish any scientific conclusions in regard to disease, they will be far worse than merely useless, and lead only to error. The sources of fallacy in such matters are many and great, and, so far as I can see, impossible to eliminate. I will mention only a few of them. No one who has ever seen anything of the way in which certificates of death are given can possibly suppose that conclusions founded upon them are scientifically of any value, and yet these are about the best of the materials which will be at the officer of health's disposal. As an example, I can only refer to the now famous case which is believed to have been the source of the Marylebone typhoid epidemic, in which a death from that disease was registered as a 'disease of the heart'. When to this are added the fallacies arising from different views in regard to disease held by different practitioners (*e.g.*, cases which one man returns as scarlatina another calls diphtheria), those arising from mere blunders, whether of ignorance or carelessness, and those even more common, in which the practitioner yields to the desire of the patient's friends to conceal the true nature of the disease, it will be seen that conclusions built upon such a foundation will be indeed built upon the sand. Added to this, it must be remembered that the return of sickness at any rate will be founded on pauper sickness only—that is to say, on imperfect returns from a small fraction of the whole population (about 5 per cent.), and a fraction, too, which exists under somewhat special sanitary (or unsanitary) conditions, and whose diseases wholly differ both in what they include and in what they exclude from those which affect other classes of society. It cannot be too strongly stated that, as regards any scientific conclusions affecting the condition of the country in general or its population, returns, such as those which have been recently demanded by the Local Government Board of the officers of health throughout the country, will never be worth their postage, to say nothing of the labour and expense implied in their preparation."

FEMALE ARMY SURGEONS.

SIR,—The notice in the JOURNAL of September 26th, extracted from the *Allgemeine Medicinische Zeitung*, stating female surgeons were to be admitted to practise in the military hospitals in Russia, may mislead your English readers. The title "Surgeon" (*Chirurg*) is by no means synonymous with that in England: it is more like dresser, or hospital attendant. In Prussia, there are three degrees of surgeons; the two lower only confer the right to bleed, blister, dress wounds, and perform minor operations. English medical men travelling in Germany frequently enter their names in the strangers' book as *Chirurg*, which does not designate their true status in the profession. I am, etc.,

Ipswich, Sept. 26th, 1874. HENRY P. DRUMMOND, M.D.

P.S. "Surgeon" in Germany holds about the same relative position as a midwife does to the regularly qualified accoucheur.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Oct. 5th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer; The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Lisbon News Letter; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Sir John Rose Cormack, Paris; Dr. Bradbury, Cambridge; Dr. Miller, Glasgow; Mr. Berry, Wigan; Dr. Horton, Bromsgrove; Dr. Herbert Snow, London; Our Irish Correspondent; Mr. Anthony Bell, Newcastle-upon-Tyne; Mr. Robson Roose, Brighton; Dr. Trollope, St. Leonard's; Mr. J. W. Groves, London; An Old Member; Scrutator, Mr. W. G. Chuckerbutty, London; M.D.Edin.; The Secretary of the Harveian Society; Dr. Martin, Carmarthen; Mr. J. Lawton Andrew, Moscley; Dr. Lewis Mackenzie. London; Mr. W. Clegg, Boston; An Associate; Mr. David Griffith, Rhyl; Dr. A. H. Jacob, Dublin; Dr. J. Hughes Bennett, Edinburgh; Mr. J. Sedgwick, Boroughbridge; A St. Bartholomew's Student; Mr. Wheelhouse, Leeds; Dr. W. Anderson, Glasgow; Dr. W. Fairlie Clarke, London; Mr. Jones, Hereford; Mr. G. Brown, London; Mr. Waren Tay, London; M.D.; Surgeon-Major Porter, Woolston; Mr. Eastes, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Mr. Thomas Green, London; Mr. G. S. Symmons, Ledbury; Mr. A. Kemball Cook, Greenwich; Dr. J. H. Galton, Anerley; Dr. Munro, Cupar Fife; Dr. E. Holland, London; Dr. James Lawrie, Glasgow; Dr. D. S. Ferris, Uxbridge; Mr. E. Thurston, Ashford; Dr. George Johnson, London; Dr. F. W. Wright, Derby; Mr. Southam, Manchester; Mr. J. Ashburton Thompson, London; Mr. B. Hunt, London; Dr. A. S. Taylor, London; Dr. Lockhart Clarke, London; Dr. Snaith, Boston; Mr. Jackman, Swymbridge; Dr. Yellowlees, Glasgow; r. T. S. Walker, Manchester; etc.

BOOKS, ETC., RECEIVED.

Notes and Observations on Diseases of the Heart and of the Lungs in connexion therewith. By Thomas Shapter, M.D. London: J. and A. Churchill. 1874.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis. By W. H. Van Buren, A.M., M.D., and E. L. Keyes, A.M., M.D. London: J. and A. Churchill. 1874.

REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

III.—ANTAGONISM BETWEEN HYDRATE OF CHLORAL AND CALABAR BEAN.

THE minimum fatal doses of these two substances having been already determined in previous researches (see Tables I and IX), it was resolved to investigate the question of antagonism between hydrate of chloral and extract of Calabar bean. The first set of experiments are shown in the following table.

TABLE XVII.—*Showing the Effects of Extract of Calabar Bean as modified by Hydrate of Chloral—Extract of Calabar Bean given after Hydrate of Chloral—in Rabbits.*

No.	Weight of Rabbit.	Time when Ext. of Calabar Bean was given after Hyd. of Chloral.	Dose of Hydrate in grains.	Dose of Ext. of Calabar B. in grs.	Result.	Remarks.
229	3 lbs. 12 oz.	14 min.	15	¼	Recovery	No convulsions; profuse salivation
230	4 lbs.	6 min.	20	½	,,	No convulsions
231	4 lbs.	12 min.	15	¾	Died in 2 h. 53 m.	,,
232	3 lbs. 4 oz.	10 min.	15	½	Recovery	Severe tremors
233	3 lbs. 4 oz.	17 min.	15	½	Died in 14 min.	Very violent convulsions
234	6 lbs.	20 min.	20	¾	Recovery	No convulsions
235	6 lbs.	,,	20	¾	Died in 1 h. 45 m.	Apparently asphyxiated from mucus

In all of these cases, the hydrate of chloral was given before the Calabar bean, at varying intervals from six to twenty minutes. Now, as hydrate of chloral, in doses of fifteen grains, produces hypnotism in about from fourteen to twenty minutes, it is evident that, in several of the above experiments, the animal was not completely under the influence of the hydrate of chloral when the extract of Calabar bean was given. In all the above experiments, with the exception of No. 233, which was a weakly rabbit, there could be no doubt of the fact that hydrate of chloral modified the symptoms produced by extract of Calabar bean, and postponed the fatal issue of the latter; but in no case was life saved from a fatal dose of the extract. Experiments 231 and 235 are worthy of note, because in these the animals survived for one hundred and thirteen and one hundred and five minutes respectively, after a dose of extract of Calabar bean which would have destroyed life, under ordinary circumstances, in from ten to fifteen minutes. The animal in Experiment 234 survived from a fatal dose of extract of Calabar bean; but, unfortunately, in his case the crucial test of the administration of extract of Calabar bean to the same amount several days afterwards was not applied.

It was accordingly resolved to make a second set of experiments to ascertain, if possible, more precisely, by the application of the crucial test, whether or not life could be saved from a fatal dose of extract of Calabar bean. For this purpose, twelve middle-sized rabbits, weighing from three to three-and-a-half pounds, were collected, and experiments were made as shown in the following table.

It will be seen from Table XVIII that, out of twelve instances, in which a dose of fifteen grains of hydrate of chloral was given ten or twelve minutes before a dose of two-thirds of a grain of extract of Calabar bean, seven died in periods varying from 44 to 120 minutes, while five survived. Those animals which survived were killed eight days afterwards by the same dose of extract of Calabar bean, without the previous administration of hydrate of chloral, in from six to fifteen minutes. The cases of death, Nos. 236, 237, 238, 241, 242, 245, and 246, might not have been fatal if pulmonary congestion and asphyxia from accumulation of fluid in the air-passages could have been avoided. It is warrantable to draw the following conclusions from these experiments.

1. That hydrate of chloral modifies to a great extent the action of a fatal dose of extract of Calabar bean, mitigating symptoms and prolonging life.

TABLE XVIII.—*Showing the Effects of Extract of Calabar Bean as modified by Hydrate of Chloral—Extract of Calabar Bean given after Hydrate of Chloral—in Rabbits.*

No.	Weight of Rabbit.	Time when Hyd. of Chloral was given before Ext. of Calabar Bean.	Dose of Hydr. of Chloral in grains.	Dose of Ext. of Calabar B. in grs.	Result.	Remarks.	Result of crucial experiment performed eight days afterwards.
236	3lbs.	12 min.	15	⅔	Death	In 44 minutes	
237	3lbs. 1oz.	10 min.	15	⅔	,,	In 80 minutes	
238	3lbs. 2oz.	15 min.	15	⅔	,,	In 88 minutes	
239	3lbs.	,,	15	⅔	Recovered	No convulsions	Died in 7 m.
240	2lbs. 15½oz.	12 min.	15	⅔	,,	Slightly convulsed	Died in 10 m.
241	2lbs. 15oz.	11 min.	15	⅔	Death	In 100 minutes	
242	3lbs.	12 min.	15	⅔	,,	In 105 minutes	
243	3lbs.	,,	15	⅔	Recovered	Convulsed	Died in 6 m.
244	3lbs.	11½ m.	15	⅔	,,	,,	Died in 8 m.
245	3lbs. ½oz.	11 min.	15	⅔	Death	In 120 minutes	
246	3lbs. 2oz.	12 min.	15	⅔	,,	In 56 minutes	
247	3lbs. 3oz.	,,	15	⅔	Recovered	No convulsions	Died in 15 m.

2. That hydrate of chloral, in some cases, saves life from a fatal dose of extract of Calabar bean.

In the above experiments, the hydrate of chloral was given first, and in most instances the extract of Calabar bean was not administered until the animal was well under the influence of the hydrate of chloral. The reason for this proceeding was, that little hope was entertained that chloral hydrate could antagonise the effects of extract of Calabar bean, if symptoms produced by a fatal dose of the latter were permitted first to make their appearance. It was resolved, however, to investigate the matter more fully. This was accordingly done in twelve experiments, in all of which the extract of Calabar bean was first administered, and hydrate of chloral was given, in the first experiment, simultaneously, and in the others at intervals of from two to twelve minutes afterwards. At this stage of the inquiry, it was found that the solution of the extract of Calabar bean supplied by Dr. Cook had evidently altered in strength, as two-thirds of a grain constituted a fatal dose for a rabbit weighing three pounds, instead of three-quarters of a grain as had been determined to be the fatal dose in the chloral-strychnia experiments. (See Table IX.) The difference between two-thirds and three-quarters of a grain is one-twelfth of a grain—that is, the fatal dose of the solution of extract of Calabar bean supplied by Dr. Cook had become one-twelfth of a grain less for a rabbit of three pounds weight.

The result of the twelve experiments are shown as follows:

TABLE XIX.—*Showing Effects of Extract of Calabar Bean as modified by Hydrate of Chloral—Extract of Calabar Bean given before Hydrate of Chloral—in Rabbits.*

No.	Weight of Rabbit.	Time when Extract of Calabar Bean was given before Hydrate of Chloral.	Dose of Extract of Cal. Bean in grs.	Dose of Hydr. of Chloral in grains.	Result.	Remarks.	Result of crucial experiment performed eight days afterwards.
248	3lbs.	Simultaneous	⅔	15	Recovery	Very ill; severe convulsions	Died in 8 min.
249	3lbs. 1oz.	2 min.	⅔	15	,,	Ditto	Died in 7 min.
250	3lbs. ½oz.	4 min.	⅔	15	Died in 49m.	Ditto	
251	3lbs.	6 min.	⅔	15	Died in 30m.	Ditto	
252	3lbs. 2oz.	,,	⅔	15	Died in 27m.	Ditto	
253	2lbs. 15½oz.	10 min.	⅔	15	Died in 13 m.	Was much affected by Cal. bean extract when chlor. hyd. was given	
254	2lbs. 14oz.	12 min.	⅔	15	Died in 30m.	Nearly dead when chloral given	
255	3lbs.	3 min.	⅔	15	Recovery	Very ill for eight hours	Died 12 m. in
256	3lbs.	5 min.	⅔	15	Survived for 4h.	Died from pulmonary congestion	
257	3lbs. 1½oz.	6½ min.	⅔	15	Died in 24m.		
258	3lbs.	7 min.	⅔	15	Died in 15m.	Ill before chloral hydrate given	
259	3lbs.	8 min.	⅔	15	Died in 12m.	Ditto	

The above tables clearly show that, if hydrate of chloral be given before extract of Calabar bean, so that the animal is deeply under the influence of hydrate of chloral before it receives the extract of Calabar bean, the symptoms of the latter are much modified, and life saved from the effects of what would otherwise be a fatal dose. See Tables XVII and XVIII. On the other hand, chloral hydrate is of comparatively little service as an antagonist to extract of Calabar bean if given some time after the latter. The reason of this is quite evident. Extract of Calabar bean produces its more severe physiological effects ten or twelve minutes after the administration of the fatal dose. In some cases the effects occur even sooner. On the other hand, a rabbit is not deeply under the influence of hydrate of chloral until fifteen or twenty minutes after it has been given. If the effects of extract of Calabar bean appear before those of hydrate of chloral, they usually run quickly to a fatal issue, because the antagonist, hydrate of chloral, is not acting with sufficient vigour to restrain them.

It comes to be considered what is the nature of the physiological antagonism between extract of Calabar bean and hydrate of chloral. Is it a true antagonism, a neutralisation of the physiological effect of the one by that of the other? The effects of the one do not appear to be completely neutralised by those of the other. Even in those animals deeply under the influence of hydrate of chloral into which a fatal dose of extract of Calabar bean has been subsequently introduced, we do not find a complete absence of the symptoms referable to the presence of extract of Calabar bean. There are still twitchings and startings, tremors, salivation, contracted pupil, etc. But, on the other hand, the tendency to death by convulsions is obviated. If the animal be kept quiet, with a free circulation of air around it, it may recover. Cases of death after the introduction of both substances are to be referred to pulmonary congestion and the accumulation of fluid in the air-passages.

From these experiments, it is evident that, in the action of chloral hydrate and extract of Calabar bean, we have a good example of physiological antagonism. This antagonism is, however, limited, as in all such cases, by two conditions: 1. *By the doses administered.* More than a minimum fatal dose of extract of Calabar bean destroys life, notwithstanding the administration of chloral hydrate. 2. *By the interval of time between the administration of the two substances.* There is a great probability of saving life in those instances in which both substances are given almost simultaneously. This probability is diminished if the chloral hydrate be given five or eight minutes after the extract of Calabar bean; while there is no chance at all if the chloral hydrate be given more than eight minutes after a fatal dose of extract of Calabar bean. But even in those cases in which death occurs after the introduction of both substances, the effects of the Calabar bean are much less marked.

These results must be regarded as very important. Several cases are now on record where ships coming from Africa have discharged Calabar beans on the shore, and which have been eaten by children with more or less poisonous effects. In such cases, the administration of chloral hydrate should at once be resorted to. In Africa, fatal doses are designedly given by the ignorant natives as a test of guilt or innocence; and it will be well to remember that there it may not unfrequently occur that, as civilisation opens up the country to our missionaries and medical men, life may, in this way, not unfrequently be saved.

IV.—ANTAGONISM BETWEEN HYDROCHLORATE AND MECONATE OF MORPHIA AND CALABAR BEAN.

In this inquiry, the minimum fatal dose of hydrochlorate of morphia was first ascertained. As this salt is soluble to the extent of only 1 in 20 of water, it was supposed that the introduction into the system of a rabbit of a large amount of water (three or four drachms) might vitiate the result, and accordingly experiments were made with meconate of morphia, a much more soluble salt. The fatal dose of the latter having been first determined (see Table XXI), experiments were made with the view of ascertaining whether or not there was any antagonism between the two. The results are detailed in the following tables.

TABLE XX.—*Showing the Effects of a Minimum Fatal Dose of Hydrochlorate of Morphia on Rabbits.*

No.	Weight of Rabbit.	Dose of Hydrochl. of Morphia in grains.	Result.	Remarks.
260	3 lbs. 8 oz.	1	Recovered	Somewhat lethargic for 2 hours
261	4 lbs.	2	,,	Much in same condition for 2 hrs.; pupils contracted
262	3 lbs. 12 oz.	2½	Survived for 48 hours	Ditto, ditto; found dead 48 hours afterwards
263	4 lbs.	3	Recovered	Drowsy and lethargic for 3 hours
264	4 lbs. 8 oz.	2¼	,,	Ditto
265	4 lbs. 3 oz.	2½	,,	Ditto
266	,,	4	,,	Ditto; pupils contracted
267	4 lbs.	4½	,,	Ditto
268	5 lbs.	5	,,	Ditto
269	4 lbs.	6	,,	Severe convulsions, with well marked emprosthotonos
270	,,	7	,,	Ditto, ditto
271	,,	8	,,	Ditto, ditto
272	5 lbs.	9	,,	Ditto, ditto
273	4 lbs.	10	,,	Ditto, ditto; convulsions not so severe
274	,,	11	,,	Ditto, ditto
275	,,	13	,,	Ditto, ditto; very severe convulsions
276	,,	13	Died in 70 m.	Convulsions; tendency to move forwards
277	3 lbs. 12 oz.	14	Died in 57 m.	Ditto, ditto
278	,,	15	Died in 53 m.	Ditto, ditto

These experiments show that approximatively a dose of about 13 grains will kill a rabbit of about 4 lbs. in weight, that is, 12 grains for a rabbit 3 lbs. in weight. The predominant symptoms preceding death by a fatal dose were as follows: restlessness, contraction of the pupil, muscular twitchings, forward movements, convulsions, at first clonic, afterwards tonic—frequently at first there was a tendency to bending of the body forwards (emprosthotonos), but always before death there was opisthotonos, that is, bending backwards.

As already mentioned, experiments were also made with the more soluble salt—the meconate of morphia. The strength of the solution employed was one in four of water. The following experiments were made to determine the fatal dose.

TABLE XXI.—*Showing the Effects of a Minimum Fatal Dose of Meconate of Morphia on Rabbits.*

No.	Weight of Rabbit.	Dose of Meconate of Morphia in grains.	Result.	Remarks.
279	4 lbs.	2	Recovered	No appreciable effect except drowsiness and contraction of pupil
280	,,	3	,,	Ditto, ditto
281	4 lbs. 4 oz.	4	,,	Ditto, ditto
282	4 lbs. 6 oz.	5	,,	Ditto, ditto
283	4 lbs.	6	,,	Ditto; slight muscular twitching
284	,,	7	,,	Ditto, ditto; spasms
285	4 lbs. 2 oz.	8	,,	Forward movements; twitchings; spasms; convulsions
286	3 lbs. 14 oz.	10	Died in 132 m.	Ditto; severe convulsions
287	3 lbs. 15 oz.	12.5	Died in 75 m.	Ditto, ditto
288	,,	15	Died in 65 m.	Ditto, ditto

The above Table, when compared with Table XX, shows that the fatal dose of meconate of morphia is less than that of hydrochlorate of morphia—seeing that about 13 grains of the former will destroy life in rabbits, while only about 10 of the latter are required. The variation may be owing to the superior solubility of meconate of morphia.

Having ascertained approximately the fatal dose of each of these substances, it was resolved to test the question of antagonism to Calabar bean. This was done in ten experiments, in five of which hydrochlorate of morphia, and in the remaining five meconate of morphia was employed. The results will be seen in the following table, in which "H" stands for hydrochlorate, and "M" for meconate.

TABLE XXII.—*Showing the Influence of Hydrochlorate or Meconate of Morphia on a Fatal Dose of Extract of Calabar Bean, Morphia Salt given first ("H." stands for Hydrochlorate, and "M." for Meconate), in Rabbits.*

No.	Weight of Rabbit.	Time betw. administration of Salt of Morphia & C. B. extract, the former given first.	Dose of Morphia Salt in grains.	Dose of Calabar Bean ext. in grains.	Result.	Remarks.		
289	3 lbs. 12 oz.	15 m.	5 H.	⅔	Death.	8 minutes after receiving extract		
290	,,	,,	6 H.	⅔	,,	9½	,,	,,
291	3 lbs. 8 oz.	18 m.	7 H.	⅔	,,	10	,,	,,
292	3 lbs. 12 oz.	8 m.	4 H.	⅔	,,	12	,,	,,
293	4 lbs.	6 m.	3 H.	⅔	,,	17	,,	,,
294	,,	15 m.	4 M.	⅔	,,	24	,,	,,
295	4 lbs. 1 oz.	12 m.	5 M.	⅔	,,	18	,,	,,
296	4 lbs. 2 oz.	14 m.	6 M.	⅔	,,	6	,,	,,
297	3 lbs. 9 oz.	10 m.	8 M.	⅔	,,	4½	,,	,,
298	3 lbs. 10 oz.	16 m.	7 M.	⅔	,,	9	,,	,,

The conclusion to be drawn from these experiments is undoubtedly that meconate and hydrochlorate of morphia are in no way antagonistic to extract of Calabar bean.

[*To be continued.*]

DIPHTHERITIC PARALYSIS:

ITS NATURAL COURSE, PATHOLOGY, TREATMENT, AND RELATION TO PARALYTIC AFFECTIONS FOLLOWING FEVERS.*

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THE limited time which I am permitted to occupy obliges me to omit introductory statements, and to glance but slightly at the competing speculations of pathologists, and the therapeutical programmes of more or less confident curers. In the latter I have not much faith. My belief is that the true guide to the prognosis and treatment of nearly every case of diphtheritic paralysis is the natural history of the disease. This is not denied by good clinical physicians, but I doubt whether it be sufficiently accepted by the majority of practitioners.

In specific fevers, in pneumonia, and in many other diseases, the best physicians of the present day do not arrogate the part of curers: they do not pretend that the medicines they employ are remedies for these diseases. Relying on their knowledge of the natural history of the malady they have to manage, and making themselves acquainted, to the utmost possible extent, with the patient's condition in respect of vital power, duration of the malady, previous history, state of organs, and constitutional peculiarities, they are *ever ready*, and *never hasty*, to institute an active interference, whether it be to aid Nature's curative efforts, to correct supervening morbid manifestations, or to obviate a tendency to death. My principal object in reading this paper—or, to be more correct, this fragment of a larger essay—is to urge the great importance of applying similar principles to the treatment of diphtheritic paralysis. The question hardly leads into the domain of theory; it admits of satisfactory settlement by an appeal to the every-day clinical experience of many physicians.

As the simplest means of opening up the subject, I shall give a detailed account of a minutely observed case, in which complete recovery took place after the disease had run a strictly typical and exceedingly severe course.

On February 21st, 1874, S. M., aged 49, a married Englishman, living with his wife and children at 6, Rue Marie Antoinette, Belleville, Paris, applied to me in the consulting-room of the Hertford British Hospital, for admission as a resident patient; and as such was admitted on the same day. Leaning on his wife, he was enabled to shuffle from the cab to the room in which I received him—a distance of about fifty yards. Some months previously, I had casually met him in one of the thoroughfares of Paris; he then seemed fairly well, and gave me a pretty good account of the health of himself and his family. He looked stronger and better than he usually appeared. This patient had been known to me for some years as an industrious man, struggling, with the assistance of his wife, to surmount the evils incident to irregular employment and imperfect alimentation. I made the acquaintance of this poor man and his family during the first—the German—siege of Paris, when, in common with about fifteen hundred other British subjects, they were saved from starvation through the watchful merciful ministry of the British Charitable Fund. In January, 1871—the cruel month which preceded the capitulation—when the icy winds were fraught with death, when fuel was a priceless luxury, and when rations were at their lowest ebb, S. M. was exceedingly emaciated, and tottered like a feeble old man. He was, nevertheless, obliged to minister, as best he could, to his wife, prostrated by debility, and to his children, suffering from severe whooping-cough, complicated with bronchopneumonia. It was not remarkable, therefore, that in answer to my first question on the 21st February, 1874:—*From what are you suffering?*—he should at once have succinctly replied—*From a relapse of the siege disease.* By careful questioning, a circumstantial history was obtained; but that history would not accurately present the whole case, if unaccompanied by the introductory statement now made.

On January 1st, 1874—that is, fifty days before he applied to me at the Hertford British Hospital—S. M. had begun to feel unwell, and three days later, he consulted a French practitioner residing in his immediate neighbourhood. He was then very weak, and suffered exceedingly from a painful swollen hand. His medical adviser prescribed cinchona wine internally; and for the hand, externally, a mercurial ointment. This ointment was used only for forty-eight hours, during which time the pain and swelling of the hand increased. He then, acting on his own ideas, discontinued the ointment, and applied a large poultice for twenty-four hours, at the end of which time he found that an abscess was pointing on the back of the hand. S. M. then applied to the poor-law doctor of the *arrondissement*, who opened the abscess, afterwards prescribed poultices, and then a lead ointment, which was applied regularly twice a day for nearly a month. Under the free use of this ointment, the hand healed up, and returned pretty much to its normal appearance.

About the 20th January, when using the lead ointment, he became affected with a malady in the throat, similar to that from which two of his children were then convalescent. This malady, from S. M.'s description, was evidently diphtheria, and was so called by the practitioner who attended him and his children. Neither of the children had any form of paralysis during, or subsequent to, their throat-affection.

When S. M. had been put to bed on his admission, I examined him minutely, dictating, at the time, a complete report of that examination which I now quote, in a slightly abridged form, as corrected at the bedside on the following day.

His lips were parched. His gums were rather spongy; they presented no blue line. The tongue was thickly coated with a dirty, yellowish, sticky slime. On the mucous lining of the mouth, tonsils, and pharynx, there were aphthous patches, some of which were of considerable size. On the back of the pharynx, there was a round deep ulcer, nearly as large as a half-franc piece, and covered a mucous secretion.

There was a moderate amount of distension and general tenderness of the abdomen. Besides the pain elicited by palpation and percussion, the patient complained of a distressing feeling of abdominal constriction, associated, at intervals, with a strong desire, but ineffectual attempts to evacuate the bowels. He stated that, during the ten days preceding admission, he had had only two stools, hard and scanty, the result of large doses of castor-oil, senna, and other purgatives, supplemented by copious enemata of salt and water.

At this stage of the examination, the patient became so weary and faint, that I suspended my investigation of the physical thoracic signs which I had just begun; and at the same time, I ordered some brandy-and-water to be administered as a restorative. When this mixture was held to his lips, he managed to get some within his mouth, but was unable to swallow any of it. Each attempt at deglutition induced spasmodic cough, the liquid which had been received into the mouth being at the same time ejected through the nose. Strong cold beef-tea of the consistence of jelly was then tried, with rather better success. This description of food, however, likewise excited a choky cough; and, with each effort at deglutition, while some was swallowed, more was returned by the nose as a liquid. Interrogated as to his dysphagia, he stated that it had existed to some extent for nearly a fortnight, but that it was only during the four preceding days that it had seriously interfered with alimentation. The increase of the dysphagia day by day was, he said, the immediate and urgent reason for his seeking admission to the Hertford British Hospital. When asked as to the kind of food which he could most easily swallow, he at once replied, "A morsel of meat or bread." He then proceeded to explain that he had been gradually losing the power of swallowing liquids, and seemed to have almost entirely lost it for the last two days. He added, that a bolus of meat or bread was swallowed with greater difficulty on the day of admission than on the previous day.

On examining the heart and lungs very carefully by auscultation and percussion, no morbid signs could be detected, except such as were distinctly imputable to debility.

Neither the diaphragm nor the muscles of the thoracic walls were paralysed. One of the most striking features at the first examination was the character of the voice—its weakness and nasality. After the examination had been continued for about a quarter of an hour, the patient's answers were given in a scarcely audible and curiously nasal whisper. Indeed, the facts of the case, as then reported, could not have been rightly elicited, had it not been for the presence of the patient's wife. During the examination, the pulse varied between 80 and 100; it presented no abnormal character except weakness.

Before proceeding with the narrative, let me state the tolerably precise conclusions which were at once arrived at in respect of diagnosis, prognosis, and treatment, from the facts now stated.

The *diagnosis* was *diphtheritic paralysis*. No doubt, the long continued free use of the lead-ointment suggested for a moment the possibility of the case being a mixed one—the conjoined result of galenic and diphtheritic poisoning. However, as the man had recently had diphtheritic sore-throat, as he had no blue line on his gums, and as his symptoms were exactly those which often manifest themselves as a sequel to diphtheria, his case was set down as one of diphtheritic paralysis.

The *prognosis*, under certain reservations, was favourable. The unfavourable circumstances were, the severity of the symptoms, and the prostrate state of the patient, taken in conjunction with the fact that the period during which the paralysis had existed was still too short to warrant the hope that it had attained its maximum. Had the duration of the paralysis and debility been considerably longer, and had they been also no greater than they were, the unfavourable element in the prognosis would have been much smaller. The favourable prognostics were, that the diaphragm and respiratory muscles were unaffected; that there nowhere existed any recognisable organic lesion; and that the debility of the patient being probably the result to a great extent of imperfect alimentation, it was likely to disappear under the judicious selection and careful administration of food, combined with the adoption of proper means for securing its digestion.

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The *treatment* involved the adherence to important general principles, and the arrangement of numerous details in accordance therewith. Special treatment might or might not be tentatively employed at once; but, in any case, certain requirements were immediate and absolute —viz., faithful, intelligent nursing; suitable food, so administered as to obviate as much as possible the risk of choking; clearing out the torpid intestinal canal; and the use of means calculated to restore the mouth and pharynx to a wholesome state.

Special treatment, it was felt, might be advantageously allowed to remain undetermined for at least a few days, during which, perhaps, guiding opportunities might possibly be detected, as not unfrequently occurs in similar cases, when carefully watched from day to day.

With the view of emulging the liver and unloading the torpid bowels, a pill containing four grains of calomel was forthwith administered. It was likewise directed that, two hours after he had taken the calomel pill, he was to take another pill containing four grains of the compound rhubarb pill mass of the *British Pharmacopœia* and one grain of the extract of nux vomica; and it was likewise ordered that, if, as was expected, no stool were obtained within six hours, as large a quantity as possible of salt and water should be slowly injected. The ulcer on the pharynx was brushed with pure creasote; and the mouth was directed to be frequently swabbed with the glycerate of borax, and washed out once in twelve hours with a weak solution of alum.

Next morning (February 22nd), at my ordinary visit about 11 A.M., I found the patient's strength decidedly increased, and his general appearance improved. The feeding had been well managed; and he had had some hours of refreshing sleep, from which he was roused by severe abdominal pain, which had been partially relieved by hot fomentations. There was great tenderness on pressure all over the abdomen, and greater distension than on the previous day. A small quantity of urine had been passed, which, tested by heat and nitric acid, was found to be moderately albuminous. With the double view of relieving pain and relaxing the bowel, and in aid of the action of purgatives already taken, the abdomen was freely smeared with an ointment consisting of one part of extract of belladonna and three parts of lard. In applying this ointment, gentle friction was employed. It was prescribed that, in the event of the bowels not having been moved within six hours, two drops of croton-oil should be given.

On the following morning (February 23rd), I found the patient very weak, although he had had a good deal of sleep and aliment. He was, in fact, recovering from extreme exhaustion, which had supervened on an enormous unloading of the bowels following the administration of the two drops of croton-oil. The evacuation consisted of indurated fæces, slightly smeared with bloody mucus. During the passage of the fæces, there was intense pain in the abdomen and at the anus. The blood observed was in very small quantity; and proceeded no doubt from hæmorrhoids. No medicines were ordered.

On February 24th, the patient was greatly improved in countenance; he had neither pain nor uneasiness in the abdomen. There seemed to be some increase—there certainly was no diminution—in the paralysis and anæsthesia of the extremities. The difficulty in swallowing was less complained of, and was supposed by the attendants to be less than it had been since the patient's admission. The patient stated that his vision had been indistinct for the last two days—a fact which, when first mentioned, was attributed to the use of the belladonna-ointment. There was some dilatation of the pupils. No medicines were ordered.

On February 25th (the condition being the same as on the previous day), I prescribed a blister to be applied over the larynx and sides of the throat, feeling certain that, the exudative stage of the diphtheria being long past, a safe time had arrived for making a vigorous trial of counterirritation. I likewise prescribed two drachms of the compound tincture of cinchona to be taken three times a day in his wine, with (in each dose) five drops of the liquor strychniæ of the *British Pharmacopœia*. The rhubarb and nux vomica pill, full diet, and a daily *litre* of claret, were ordered to be continued.

Next day (February 26th), there was a marked improvement in the patient's voice; it was considerably stronger and much less nasal. This amelioration was probably due to the blister; at all events, I have seen blistering followed by a similar result in similar cases.

From February 26th to March 2nd, no record of symptoms was made—an evidence that nothing particularly noteworthy had occurred; and on March 2nd, there is simply a note to the effect that the patient was then complaining of "increasing blindness". The next report is full and important.

March 5th. For some days, the patient had looked weary, and complained of great debility. His pulse was 84; his tongue was dry and coated. His bowels had not been moved for three days. Since February 25th, he had taken two drachms of the compound tincture of cinchona of the *British Pharmacopœia* three times a day, with five drops of the liquor strychniæ (*B. P.*); and, at dinner, a pill containing four grains of the compound rhubarb-pill mass and one grain of extract of nux vomica. He had eaten abundantly till two days ago, and had had a *litre* of claret daily. In respect of the general appearance, there was marked improvement. The improvement in the voice and power of swallowing, which began immediately after the application of the blister, had gone on increasing steadily; and there now remained nothing abnormal in speech or deglutition. There was, however, a great increase of the paralysis. Till to-day, he had been able to shuffle about the ward, and use his knife and fork. To-day, he was absolutely confined to bed, being unable to get up even for necessary purposes.

There was an almost total anæsthesia of the upper and lower extremities. Both legs were very much more paralysed than at the date of his admission. There was less power in the left than in the right leg. He could voluntarily, but with much difficulty, draw up both legs to a certain extent; he could draw up the left less than the right leg. After he had drawn up his legs, at my request, five or six times, they were absolutely paralysed. In about half an hour, the power began slowly to return to the legs; and I was informed next day that in two hours it was restored to the degree in which it existed before it had been tested in the manner now described.

The paralysis of the arms and hands was almost as great as that of the legs. Both deltoids were shrunken and wholly useless. The grasp of each hand was exceedingly feeble; and, after a few seconds, the feebly grasped object fell from the hand. This I particularly observed when the nurse placed before the patient, on one of our hospital bed-tables a plate containing a fork and some morsels of very tender meat. He managed, after two or three failures, to get the prongs of the fork into the meat; and, after a rest of one or two minutes, he carried the fork towards his mouth, at the same time meeting the morsel as it were halfway by bending down his body and head. Once or twice, he managed to get the bit of meat into his mouth, but generally the fork fell from his grasp before he could get the morsel within his lips. Whilst the nurse fed him, I proceeded with the examination of a patient in an adjoining bed; so that the whole of the feeding, occupying probably half an hour, was conducted under my immediate inspection. When I asked the patient to squeeze my hand with all his strength, I could only feel the slightest possible pressure. At the same moment that I recognised this very slight pressure, I saw his fingers encircling my hand, and could distinctly perceive by his countenance that, in obedience to my request, his volition to squeeze was at maximum intensity.

Finding that the bed was soaked with urine, which was dribbling from the penis, and finding, by percussion, that the bladder was enormously distended, I introduced a catheter, and thereby withdrew a large quantity of turbid dark-coloured urine, which, tested by heat and nitric acid, was found to be moderately albuminous. To prevent recurrence of the over-distension of the bladder, which was not only the necessary consequence of the paralysis, but was also itself, no doubt, an intensifying cause of that paralysis, I introduced a corked gum-elastic catheter, so attached as to remain in position. The nurse was directed, at intervals of not longer than four hours, to let the urine flow from the bladder by removing the cork from the catheter. By keeping the catheter closed, except when the bladder was being evacuated at intervals, the risk of the organ contracting upon, and being injured by the point of, the instrument, was obviated. On the other hand, the periodical evacuation at stated intervals was a security against over-distension. The cinchona and strychnia were suspended; the aperient dinner-pill, containing one grain of the extract of nux vomica, was continued; and a tumbler of Püllna water was prescribed to be taken every four hours till the bowels were freely moved.

March 6th. The Püllna water, aided by a clyster, thoroughly relieved the bowels at an early hour this morning. The patient looked better, but, in respect of the paralysis, his condition was the same, or worse. There was squinting in both eyes; and, on placing before the patient a book printed in large distinct type, he was surprised to find that he could not read it. Unknown to himself, he had for some days been gradually losing the power of distinguishing small objects; even objects of considerable size he saw indistinctly. For example, he could not see whether the nurse had or had not on her cap. Besides the paralysis of the muscles which move and adjust the eye, he had palsy of the palpebral muscles.

On March 7th and 8th, the patient slept and ate well; and expressed himself as greatly pleased and surprised at his great return of strength. On neither of these days did he take any medicines.

On March 9th, he was in equally high spirits. He said that he had slept well, eaten a good breakfast with a good appetite, and felt in all respects much better. His tongue was clean; his pulse was 76, and of fair strength, so long as he remained recumbent. He felt confident that he could stand and walk. I allowed him to try. With great difficulty, he got his legs over the side of the bed. On attempting to stand, he slid down on the floor a helpless inert mass; and there remained till he was lifted into his bed. This unexpected display of muscular impotence caused him to weep. His condition was then carefully examined. He was found to have complete paralysis and anæsthesia of the upper and lower extremities. There was marked squinting of both eyes and very defective vision, depending evidently on muscular paralysis. There was also palpebral paralysis. There seemed to be great decrease in the vesical paralysis. That the degree of decrease might be accurately ascertained, I removed the catheter, and did not reintroduce it. I ordered a continuance of the full diet and daily *litre* of claret, which he had been having (and thriving upon) for some time. I directed that, till farther orders, he should take no other medicine than the daily pill composed of one grain of extract of nux vomica, and three grains of the compound rhubarb pill mass of the *British Pharmacopœia.*

The therapeutic opportunity seemed now to have fully arrived. Although alimentation was being satisfactorily conducted, and a general corresponding functional amendment was obviously taking place, it was evident that nature's efforts were inadequate, and required to be judiciously assisted by art. There was, notwithstanding the conspicuous general improvement, a considerable progressive wasting of the paralysed muscles. There was, therefore, a risk that, if we did not soon excite movements of the affected muscles, their atrophy would proceed so far as either seriously to interfere with, or entirely prevent, a restoration of their powers. The indications were to promote improved nutrition of the wasting muscles by directing towards them a better supply of blood, and compelling them to involuntary, as a temporary substitute for voluntary, exercise.

I ordered gentle galvanic excitement of the nervous periphery of the superior and inferior extremities to be produced, morning and afternoon, to such an extent, and in such a way, as to induce moderate action of the paralysed muscles. I likewise directed the whole circle of the muscles of the thoracic parietes and the shoulders to be moderately kneaded twice in the twenty-four hours, the parts which were kneaded being at the same time lubricated by a liniment composed of one part of tincture of cantharides, one part of British laudanum, and six parts of the British compound liniment of camphor. I likewise directed bands of linen, each one inch in breadth, and smeared with a stimulating paste, to be applied at intervals of five or six inches to the whole length of the superior and inferior extremities, care being taken to change the position of the bands once, twice, or oftener in the twenty-four hours, so that, while the surface was kept glowing with warmth by the paste, its topical action on the skin should not be allowed to exceed the proper limit. The composition of the paste employed in this case was not exactly the same as I usually prescribe in similar cases. The formula requires to be modified according to the character of the skin of the patient, the duration of the application, and other circumstances. In the case now being described, the paste was composed of six drachms of powdered ginger and two drachms of powdered English mustard, thoroughly rubbed up with just a sufficient quantity of lard to make a paste of suitable consistence.

On March 11th, the patient complained so much of continued pain in the limbs for hours after they had been galvanised, that the galvanisation was ordered to be discontinued; and, as he attributed restlessness and sleeplessness on the two preceding nights to hot tingling sensations induced by the stimulating paste, I directed that the bands should be removed each evening at seven o'clock, and not replaced till the morning, when he awoke refreshed by sleep.

March 31st. The treatment prescribed on March 9th had been ever since steadily and rigidly carried out. Several slight vesications were on two or three occasions produced by the paste having remained too long in contact with the same surface. For weeks, there had been no difficulty with the bowels. Tepid water enemata and a tumbler of Püllna water had, however, been required to supplement the rhubarb and nux vomica pill. In the legs, there was a great increase of power, more sensibility and less numbness. He moved his legs in bed without much difficulty. He was still unable to stand for more than half a minute; and now (during the writing of this report), in attempting to do so, his legs gave way under him, and he slid down into a sitting posture. He could now slowly, and with occasional rests, feed himself with spoon and fork, but he had not sufficient strength to use the knife to cut his food. His vision had much improved, and was daily improving. He had not the slightest difficulty in retaining or voiding his urine. The improvement had gone on so satisfactorily, that it had been deemed unnecessary to recur to the use of galvanism.

The treatment was to be continued in all respects as at present; and, in addition, he was to take three grains of the (*British Pharmacopœia*) saccharine carbonate of iron three times a day.

April 30th. He was able, with the aid of a stick, to walk about the ward. His general health was good, and his appearance was that of a man in perfect health. With the exception of taking the saccharine carbonate of iron as prescribed on March 31st, generous alimentation was henceforth to be the only treatment.

May 10th. He left the hospital in excellent health, walking with his stick to the cab, which I saw him enter without the slightest assistance.

On August 1st, he came by request to my house. He was then quite free from all trace of paralysis, in better health than he had enjoyed since the war; and was occupied with his business, which involves a great deal of walking about the streets.

[*To be continued.*]

A METHOD OF TREATING CHRONIC STRUMOUS SYNOVITIS, MORE ESPECIALLY OF THE KNEE.*

By RICHARD BARWELL, F.R.C.S.,
Surgeon to the Charing Cross Hospital.

THE particular form of disease to which the following remarks apply is the condition which Sir Benjamin Brodie termed "a morbid change of structure of the synovial membrane", which he deemed to be incurable, and of the same order as scirrhus, medullary sarcoma, fungus hæmatodes, etc. It is more common in the knee than elsewhere, and produces a round almost shapeless enlargement, which imparts a dull sense of fluctuation, and which conceals or muffles the anatomical points of bone or ligament. It is the true white-swelling, with which all here must be quite familiar as a malady that frequently commences and remains for a considerable time painless, then becomes extremely painful, and may in some cases lead to ankylosis, but more frequently to complete destruction of the joint.

Such a case, examined anatomically when the tumour has attained a large size, but before either curative or destructive processes have commenced, exhibits peculiar appearances. The cavity of the joint will be much encroached upon, perhaps almost obliterated, by a light brown or rosy tinged jelly, into which all tissues from the skin inward appear converted. This jelly is traversed by fine wavy blood-vessels, is intersected by a few thin white fibrous bands, and is marked here and there by blotches of a yellower hue. Internal and external ligaments, interarticular and even articular cartilages, have all been converted into, or engulfed in, this gelatinous mass, which, in such advanced cases, appears to spring from the denuded bones and subcutaneous tissue. Less advanced cases exhibit the same jelly-like mass, but in less quantity, less thick, which appears to be growing from both surfaces of the synovial membrane. Ligaments and interarticular cartilages appear changing into this substance, losing their toughness and elasticity, and becoming thicker and sodden, their constituent elements being separated by jelly. A portion of this substance, submitted to microscopic examination, exhibits the characters of growing embryonic tissue; viz., it consists of cells, round and oval, of bare nuclei, and of granules; intermingled with these are also fusiform cells, so arranged that their tapering extremities, overlapping each other, form lines three or six cells in thickness; these lines are sometimes arranged as a network, in the meshes of which lie the other elements. On the number of these lines, therefore, on the size of the meshes, depends the more or less soft quality of the gelatinous mass. Of the peculiar appearances presented by the yellow blotches, as well as by the surroundings of localised and isolated abscesses, often found in this tissue, I will speak immediately.

Several years ago, I pointed out that this tissue is identical in macroscopic and microscopic characters with the material that forms the granulations and the subjacent bed of an indolent ulcer; the same is also abundantly present in the swollen mass that surrounds carious tarsal or carpal bones; it is, in fact, simple granulation-tissue. In such an assembly as this, I need not point out that every inflammatory act is attended by proliferation of the cells in the connective tissue. If the inflammation be healthy, and in a sound constitution, these freshly produced cells and nuclei, at first round and oval, pass through a fusiform stage into fibre-cells, and so to the formation of new tissue, whence thickening of the part, stiffness if it be a joint; perhaps, if the malady have been severe, ankylosis. But the speciality of strumous inflammation is, that it does not complete these formative stages; hence it is both sluggish and invading—sluggish, because all stages subsequent to the primeval cell-proliferation are either excessively slow or absent; invading, because the older cell-formations produce no new tissue, but only fresh growth of cytoblasts. But such state of joint cannot persist for unlimited time; there must arrive for this granulation-substance a period either of organisation or of destructive change. Just as an indolent ulcer, which has persisted for some time as an unchanging sore, will take on either a cicatrising and salutary or an excavating sloughy and destructive action, so does this gelatinous mass take on formative or destructive tendency. The small remnant of the joint-cavity may open out into a large abscess; or isolated abscesses, from the size of a pea to much larger dimensions, will form in the substance of the false tissue, will open both outwards and inwards, leaving long crooked sinuous tracks, out of whose mouths crop exuberant and easily bleeding granulations continuous with, indeed, part of the mass within. A careful examination of sufficient numbers of cases, to furnish examples of such condition in every stage, shows easily the process whereby such isolated abscesses are produced, and that they are connected with those yellow blotches which, as above mentioned, are often found in the midst of the jelly-mass. This yellow colour is simply due to a process to which all embryonic tissues are liable previous to breaking up, namely, the fatty degeneration, then bursting of the cells overdistended with oil, death of these, and suppuration of the surrounding parts.

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* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

If I have made myself understood in these explanations, it will be evident to my hearers that the obstinacy, the reputed incurability, of these cases depends not on too high, too violent, an action, but on want of action—on insufficient power to continue onward the processes which have begun. Therefore, joints in this condition are white and bloodless-looking, and their temperature, instead of being from two to three degrees higher than that of the other side, is frequently the same, and frequently lower. Therefore, I conceive that, to continue to keep such a joint at perfect rest, poulticed, or with lotions, is a mode of treatment much adapted to prolong such injurious inactivity; and I have for some long time past adopted frictions, pressure, passive, and then active movement, with considerable success, as several cases I could report would show But from such reports I may here refrain, as I wish to introduce to your notice a more rapid and decisive method of dealing with such disease.

Let me again observe that the object of the treatment is to induce in this sluggish cell- or granulation-tissue such action as should prevent fatty or other forms of degeneration, and promote its formative action—its conversion partly into fibrous tissue, its absorption partly by the active work induced. As we stimulate indolent flabby granulations of an old ulcer or of a wound by nitrate of silver or sulphate of copper into the production of tissue, so it struck me I might also, by a direct application, stimulate sluggish tissue of a strumous synovitis into more healthy condition; and for this purpose injection of minute quantities of a stimulating drug seemed to me the most direct method. I therefore began experiments, injecting first one fluid, then another, but always with such caution that I never had an unfavourable issue nor evil result of any kind. It would merely be wasting time here to detail the several fluids that I have employed. The first used was iodine; and in none of my subsequent work have I found any so satisfactory. I began with a very weak solution, viz., ten minims of the tincture to an ounce of water. In all my later cases, I have employed half a drachm of tincture of iodine, filling up to the ounce with water. I have little doubt that a still stronger solution might be employed, but this strength appeared to answer all the purposes required with sufficient rapidity.

The method of using the drug is simple: a syringe with very fine needle should be used, and care must be taken not to inject into the cavity of the joint, but into the thickness of the morbid tissue. Moreover, I need hardly, after what has been said, reiterate that proper selection of cases must be cared for. Injection must not be employed when any active inflammatory process is going on; the temperature of the joint must be not at all higher, or but a portion of a degree higher, than that of the other side. Moreover, there must be either no pain, or only that dull aching, which is rather a sign of fulness of veins than of arterial hyperæmia. Starting of the limb, the symptom above all others which shows that the cancellous structure next the articular lamella is inflamed, shows also that the time for this treatment has passed by, unless such starting be only occasional, and not severe.

When, in any case, all the favourable conditions are present, I puncture the skin in the softest and most prominent parts of the tumefaction, making from two to four punctures, as the case may demand or permit; into each of these punctures I inject about five minims of the fluid, withdrawing the needle a little as the piston descends, so that the liquid occupies a line rather than a spot of the tissue. After the injection, I use pressure by means of an elastic bandage, put on with such tightness as will just escape producing congestion or œdema of the limb below. The effects are quite painless save the puncture; in only one case out of seventeen has there been slight aching for about two minutes. In all cases, decreased size, increased hardness of the tumour, with disappearance of the dull aching pain has resulted, and renewal of use in the joint, to an extent according to the period when it came under treatment, *i. e.*, according to the amount of injury which the disease had already produced. This period is different in different cases; in some, the malady commences of itself as a painless, or all but painless, enlargement, the child running about gaily on a swollen and somewhat stiffened knee; in others, the attack begins as an acute inflammation, which only after a time falls into the sluggish stage. It is evident that in the one form much more damage may be done to the joint before this treatment can be used than in the other. The further parts of the treatment must depend upon these differences: in some of the former, we may hope to regain a joint with fairly free mobility; in others, this will be more restricted; and in the latter we must be content with only slight degree of motion. The amount of passive movement and of active movement to be employed in each case must depend on all these circumstances. I can only say that, as the tissues of the joint harden more and more under the use of injection, so may passive movement be used with considerable freedom.

The especial point which I wish to insist upon is that, after the first phase of the disease strumous synovitis—the fungoid disease of the joint is not inflammatory—is not over-action, but under-action; and that some treatment to excite action—not rest, lotions, etc., which discourage action—is the right method of treatment.

CASE I.—Mary F., aged 8½, was brought to me, October 21st, 1873. The right knee had been swollen, and the child more or less lame for rather more than two years. The knee was swollen, round and shapeless; soft, and with false fluctuation. There was a good deal of aching; the knee was in a strong leather splint. The dimensions in inches were: thigh, sound, 9½, diseased, 8¼; leg, sound, 8½, diseased, 7¼; knee, sound, 9½, diseased, 10⅝. I injected into two places where the tumour seemed softest, and repeated this twice in the week, applying immediately afterwards an elastic bandage.

November 4th. After the fourth injection the knee measured 10⅛ inches, and was harder.

November 18th. After eight injections, the knee measured 9⅞ inches barely. I continued the pressure, and used passive motion pretty freely.

On December 16th, the splint was discontinued during the day; the knee measured 9¾ inches, *i. e.*, a quarter of an inch more than the left one. It could neither be completely extended nor completely flexed, but very nearly so.

In the middle of January the child went back to the north, with a knee that the parents considered cured; but I cautioned them strongly against permitting too unrestricted an use of the limb.

CASE II.—George M. was admitted into my care in the Charing Cross Hospital, March 10th, 1874, with chronic and strumous synovitis of the right knee. The lad was not unhealthy looking, but rather worn, and was just twelve years old. The right knee was much swollen, round, and shapeless; except at one spot on the inner side, which was more protuberant and softer than elsewhere, although the whole joint was soft. At this point, the sense of fluctuation was so marked that I wished to ascertain absolutely the presence or absence of pus, I, therefore, punctured with the needle of an injection syringe, and drew the piston out a few lines. Then removing the needle I blew out its contents on a glass; it was merely blood.

On the next day, March 11th, the boy complained of a good deal of aching on the joint; some starting at night, which had come on about a fortnight or three weeks previously. I injected around this protuberant part in four places the diluted iodine tincture; passing into each point about four minims of the fluid.

On the 14th, 18th, and 21st, the injection was repeated. Pressure with an India-rubber bandage was kept up.

March 25th. The knee had measured before treatment 11⅞ inches, and was of the same temperature as the other; it now measured 11½ inches, and was three-tenths of a degree warmer; the joint was harder. The aching appeared much the same, or perhaps a little diminished. There had been no starting during the last four nights.

The injection was repeated on the 29th, and on April 1st, 4th, and 8th. At the latter date the knee was much smaller; the aching had disappeared. There was no starting. The protuberance of a portion had disappeared. The measurement was 11 inches, only half an inch more than that of the sound side. Passive movement had been used twice a day for a week, and greater mobility had been gained.

April 22nd. The boy could now walk with a stick without pain. The knee was firm and hard in texture. The outline of the patella was well marked, but its ligament was concealed by puffiness on each side. There was great pressure for beds in the hospital, and he was made an out-patient.

May 17th. The boy was able to walk with nearly perfect gait—the defect arising from inability to quite straighten the knee. The above was the last date of my seeing him, as he disobeyed orders to show himself every week. I suppose that, as the knee was so well, he did not consider it worth while.

BLOODLESS SURGERY.*

By FR. ESMARCH, M.D.,

Professor of Surgery in the University of Kiel.

DURING my present visit to England and Scotland, I have often found occasion to speak with other surgeons on bloodless surgery. I found that some were but imperfectly acquainted with the method; that others applied it, but not in the right manner; that others again attached no importance to the avoidance of hæmorrhage during an operation.

This experience induces me to address a few words on the subject to this Society, because I hope to find many present who have acquired similar views to my own on the value of the method, and because I am convinced that it is scarcely possible to speak too often or loudly enough on the influence which this method must exercise on what we call good fortune in surgery. Without doubt, the best proof of the value of any method is afforded by the influence on the mortality after the greater operations, and especially after amputations of the limbs.

I lately compared the results obtained in my practice after operations performed bloodlessly with the recently published results of operations performed by other surgeons, and I found that my results were much better than the best of these, including even those in which the antiseptic method had been strictly followed. But you may very properly object to this, that it is not conclusive to compare the statistics of other hospitals or surgeons with my own, because the circumstances in different hospitals, and the cases as well as the treatment are so different, that they do not admit of comparison without a detailed account of the individual cases.

Much more important, undoubtedly, must be the comparison between cases occurring in my own practice and performed in the same hospital previously to the application of the bloodless method and afterwards. This comparison I am able to offer.

I have put together the statistics of the operations I performed during the last six years, and have found the most striking results. I shall only mention to you, as an example, the statistics of the amputations of the thigh and the leg. Of 88 amputations of the thigh performed in the first five years, there died 37, or 42 per cent. Of 67 amputations of the leg, there died 19, or 28.3 per cent. After the adoption of the bloodless method, there died, of 13 amputations of the thigh, only 1; and of 12 amputations of the leg, only 1; so that the proportion of fatal cases in amputations of the thigh and leg together is brought down from 36 to 8 per cent.

Even admitting the error which may result from the difference of the numbers compared, I am of opinion that these statistics afford such striking evidence of the value of bloodless surgery, that no one should neglect this method in cases to which it is at all applicable. Nor should its use be limited to operations on the extremities, but it should be extended to other regions with such special modifications as each case may require. For instance, I at one time believed it to be impossible to use it in amputations at, and in excisions of, the shoulder-joint; but a few trials showed nothing to be easier. For these operations, it suffices to pass the elastic tubing under the armpit, and to have it tightly held over the shoulder by the hand of an assistant, replacing the latter by a clamp in more protracted operations. In some cases, however, compression by aid of the elastic tubing does not suffice to prevent the afflux of arterial blood, and in these other means for the prevention of hæmorrhage must be resorted to. Allow me to detail a case of this description. In the course of last summer, a man between fifty and sixty years of age, with a tumour of the size of an ostrich's egg filling his right armpit, was admitted into my hospital. The tumour had attained this size in the course of two years; and, as it caused great pain, and quite incapacitated the patient from work, its removal at all hazards was wished for. The tumour was firmly wedged in between the chest and shoulder-blade, to the anterior surface of which it seemed to adhere, all movements of the scapula being communicated to the growth, which was unaffected by rotation of the head of the humerus. The presence of severe pain in the arm led to the supposition that adhesions existed between the growth and the nerves in the armpit. Microscopic examination of a piece of the tumour removed by means of an exploring trocar showed it to be a myxosarcoma. Growths of this nature are known frequently to take their origin in nerve-sheaths; and, as risk of rapid relapse in such cases can only be obviated by the operation for their removal including the surrounding tissues, even if these be apparently healthy, I considered that indications existed for removal of the whole arm with the scapula. The elastic tubing could not be applied in this case, nor could other means of compression be resorted to, as the pulsation of the subclavian artery was not to be felt, the tumour having pressed the shoulder upwards, and thereby considerably deepened the supraclavicular fossa. I therefore determined to tie the subclavian artery. I commenced by bandaging the arm up to the shoulder with elastic webbing, and then removed the outer two-thirds of the clavicle, for the purpose of exposing the artery, a course rendered necessary by the altered relation of the parts. Both subclavian artery and vein were then ligatured and divided. The cords of the brachial plexus, which were tensely stretched, and which partly entered into the substance of the tumour, were then cut through. I then made anterior and posterior skin-flaps, and quickly removed scapula and arm with hardly any loss of blood, only a few vessels in the divided muscles requiring ligature. The wound was united by sutures and dressed with carbolised oil. The reaction was moderate, and healing was nearly completed at the time of my leaving Kiel.

The applicability of the bloodless method is, however, not limited to the extremities. Tumours situated in other parts of the body, provided they be superficial, can also be removed without hæmorrhage. For instance, in operating upon erectile tumours of the scalp in children, all bleeding can be prevented by compressing the surrounding parts by means of steel rings mounted on handles. In operations on the trunk, the same object can be attained by a thick ring of India-rubber secured by elastic tubing. Operations on the male genitals can also be performed bloodlessly by the employment of a slender piece of elastic tubing, made to encircle the root of the penis and scrotum. It was thus possible for me, for instance, to perform the following operation, the execution of which I should not have attempted under former circumstances.

Last winter, an old man presented himself for admission, suffering from epithelial cancer of the penis of several years' standing. The anterior surface of the scrotum, and the penis within an inch of its root, presented a mass of cauliflower excrescences about the size of the palm of the hand, the seat of offensive discharge, and the occasional source of copious hæmorrhage. There was a narrow fissure in the centre of the growth, through which urine was passed with difficulty. The inguinal glands on both sides were enlarged and adherent. The patient was so weak and anæmic that I could not have ventured on operative interference in his case without the bloodless method. With its aid, however, I was enabled fearlessly to undertake an operation, the immediate effects of which were most satisfactory. I began by passing a piece of elastic tubing of the thickness of a little finger round the root of the penis and scrotum; I then crossed it over the symphysis pubis, then passed it backwards, crossed it again over the os sacrum, and finally secured the ends over the abdomen. I then removed the whole growth, including the penis and anterior wall of the scrotum, without losing more blood than was contained in the parts prior to constriction; the vessels being easily recognised and carefully secured after division. I then removed, with all possible speed, the enlarged glands, together with the integument, from both inguinal regions; separated the crura penis, which were found to be indurated, from their attachment to the os pubis, dissecting them carefully from the posterior and healthy part of the cavernous body of the urethra; and then divided the posterior surface of the scrotum by a median incision, at the posterior angle of which I fixed the remaining part of the urethra by sutures, and finally covered the wounded surface anteriorly and in both inguinal regions with the scrotal flaps. The old man had lost but little blood, and was very well after the operation. The large wound healed without any unfavourable symptoms, and he was about to be discharged to his home, when suddenly fever and symptoms of pleuritic effusion supervened. The patient died in a few weeks of exhaustion. The necropsy showed extensive cancerous deposits in the lungs and pleuræ, with effusion into both pleural cavities.

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* Address delivered at the Clinical Society on October 9th.

Gentlemen, I am afraid I have trespassed too much on your time and patience by detailing these cases. I will, therefore, only add in conclusion that, in the three hundred cases in which I have used the bloodless method, I have met with no evil consequences which could be attributed to it. It may, perhaps, be of some interest to state that the longest operation which I performed by this method lasted two hours and a quarter. It was a case of necrosis of both tibiæ, with suppuration of the knee-joint on one side, in which I first removed many pieces of dead bone from one tibia, and then performed resection of the knee-joint; my assistant being at the same time engaged in operating for necrosis on the other limb. This is a different case from that already reported in one of my papers on the subject.

ON A DISEASE OF CARPENTERS.*

By PETER EADE, M.D., F.R.C.P.,
Physician to the Norfolk and Norwich Hospital.

THE present communication will be a short one; but I have thought it worthy of production on the present occasion, because I believe it to describe an affection quite distinct in itself, though hitherto unnoticed by writers, or, at all events, not separated by them from kindred or allied disorders.

It is well known that undue or too prolonged exertion of any part of the body is apt to be followed by an exhausted or more or less paralytic condition of the overworked part; and also that this precise condition may vary in every degree, from simple weakness to a more or less complete loss of the function of the affected part. It is also familiar to us that the effects of such an exhausting or paralysing cause may be produced not alone at the special part itself, or even at the centre-point of implantation of the nerves passing from it, but also, and still more, by reflected action at other points, either contiguous to the affected centre or at the periphery of nerves afferent from these adjoining parts or their connections.

Carpenters, it is well known, in a certain class of their work, use their hands and arms pretty continuously; and not only so, but in a very monotonous way—as, *e.g.*, in planing and hand-sawing; so that the same set or sets of muscles are often constantly and continuously called into action. I have ascertained that, in an ordinary way, they do not suffer from their peculiar work—probably because it is commonly much varied; and I therefore conclude that special circumstances or conditions are necessary to induce such evil results.

R. N., aged 52, married, a carpenter, first came under observation in March 1870. He had enjoyed excellent health until about five months before this, with the exception that, in November of the previous year, he had suffered for a short time, and without known cause, from slight weakness and tremors of the muscles of the face and tongue. These symptoms, however, quickly passed off, and he remained quite well until October 1869. At this time, he began to complain of pain and numbness of the fingers and hands on both sides, extending as high as the wrists; and, not long after this, he began to be troubled with shortness of breath, made worse by any exertion; and this was soon followed by a slight cough and expectoration, the latter once or twice tinged with blood. He also said that he felt generally weak, and was unsteady about the knees on standing or walking.

At the time of his admission to the hospital, the numbness and aching of the hands and the shortness of breath were his principal symptoms. But he still had some trifling cough and spitting; and, though his body was well nourished, he was evidently weak in all his limbs, and had a fidgety nervous manner. The respiratory murmur was found to be weaker on the right than on the left side of the chest; but no other abnormality of the lungs, and none of the heart, could be detected. There was no disease or disorder of any other viscus. I ascertained that he was a quiet steady living man, perfectly temperate, not a great smoker, and free from any suspicion either of venereal disease or of lead-poisoning. His temperature was not above normal; and he had previously been very healthy and strong, and by no means of nervous temperament.

The only probable explanation of his symptoms appeared to be this. He was a carpenter in a small way of business, with a family dependent upon him, and of an anxious turn of mind. As such, he had been accustomed to work long and extra hours, to save the cost of hiring assistants, and in consequence had greatly fatigued himself in his various kinds of manual labour.

I shall not detain you with any lengthened history of this case, but will merely say that this patient has been under my observation from 1870 until the present time, a period of nearly four years. During this time, he has very slowly improved, and is now so much better that almost the only remaining symptom is shortness of breath; and he has been able to resume his occupation so far as to do some of the lighter work of his trade.

Soon after this case came under my observation, another and similar one, also in a carpenter, occurred to me; and still later, a third case, with almost identical symptoms, presented itself in the person of a labourer who had overworked his upper extremities by prolonged digging. Of all three, I may say shortly, that they all presented very similar and closely allied symptoms, one of the most prominent of these being the free secretion of a whitish mucus, apparently from the mouth, the throat, and the air-tubes, but without much cough, and without any distinct chest-disease. Other symptoms have been, shortness of breath; vague pains and discomforts in and across the chest, either limited to this part or extending upwards to the neck and face and head; sensations of dorsal chilliness or tremor, but scarcely any distinct spinal tenderness; and in all a peculiar nervousness and fidgetiness of manner.

I would now add that, since this paper was announced, a fourth case, evidently of the same class, has come under my care. This man, like the last, was not a carpenter, but had worked as a "navvy", in which capacity he had of late strained his arms severely—first in throwing earth into railway-waggons, and afterwards in barrowing heavy loads of soil all day—the effect of which at the time was to cause much numbness and aching weakness in and all along his arms.

It will be seen from this history that, of my four cases, only two were carpenters. The title, therefore, of this paper, is plainly not sufficiently comprehensive, seeing that other workers besides carpenters are liable to it. But, as my first and most typical case, and the one which is the foundation of this communication, occurred in a carpenter, and as the work in which carpenters are engaged is so especially arm-work, I have not thought it necessary at the last moment to alter it, believing that this term not inaptly expresses the nature of the disorder from which they have all suffered. No doubt its exact nature is irritation, followed by exhaustion, of those portions of the spinal cord from which the nerves of the brachial plexus arise; in other words, it is an erethism of this plexus and of its related cervical ganglia, with reflex disturbed action of other parts whose nerves are in connection with these cervico-dorsal nerves.

I believe that it has been noticed that sawyers working long hours in sawpits are liable to get a weak or semiparalysed condition of the muscles of the upper extremities. It is also well known that cramp and a species of palsy are apt to follow continued over-exertion of the limbs in several classes of workers, as in the writers' cramp of clerks, the palsy of the thumb and forefingers of writers, and the arm-cramp of smiths (described by Romberg, Russell Reynolds, and others); but I think that, although these affections are more or less allied in their nature, there is an essential difference between them and the one I am describing, in that in writers' cramp the muscles of the arm are the parts chiefly affected, whereas in these cases, beyond the trifling initial weakness and pain of the hands and arms, the effects are produced in parts distant from the limbs, and are such as show that the ganglionic system is the one specially affected.

An analysis of the symptoms shows that they extend over a considerable distance—indeed, from the head above, through the cervical and dorsal regions, as low as the level of the epigastrium; and that, though the greatest amount of effect is produced at the level of the upper part of the thorax, yet that the discomforts elsewhere felt are by no means insignificant. In some degree, the peculiar nervousness and sensitive condition approximate to what is seen after concussion of the spine, and are not very unlike what I have witnessed as following a railway accident.

It is, I think, probable that the effect of such work as carpenters and navvies sometimes perform may be somewhat akin in its jar and concussion to that of a blow or injury to the spine; and that, although in the one case the shock is less in amount and more prolonged, instead of, as in the other, sudden and violent, yet the eventual effect may be the same in kind in the two cases; viz., the production of a condition of weakness, hyperæsthesia, and loss of functional power. Perhaps in some slight degree, also, this affection may be likened to that produced in women by excessive use of the foot sewing-machine, in whom it is well known that irritability of the spine and pelvic irritation are frequently set up by its employment.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

A curious fact has been announced by Dr. B. W. Richardson; namely, that a subclavian murmur is almost universally present in carpenters and in men who work as they do. In one of the patients above alluded to, it was very distinct; and it would probably be due to the same class of cause as the affection I am describing.

As to treatment, I have tried very various forms of remedies—tonics, bromides, ice to the spine, faradic and galvanic electricity; but nothing except prolonged rest has appeared to be of any material value.

RIGOR MORTIS IN AN INFANT AT BIRTH.

By W. C. GRIGG, M.D.,
Assistant Obstetric Physician to the Westminster Hospital.

THE following case appears to me to be not without interest in relation to the etiology of rigor mortis.

On the evening of August 16th, I was sent for by one of the midwives of Queen Charlotte's Lying-in Hospital to see a woman (a multipara) with placenta prævia. Labour began about 6 P.M. with a discharge, which continued with each pain. On the arrival of the midwife, the os was found about the size of a sixpence, but the presentation could not be distinctly determined. At 9.30, severe flooding set in, which lasted about half an hour. The os was now dilated to the size of a half-crown; across the anterior portion, a soft thick substance was felt. When I reached the woman, a little before eleven, the hæmorrhage had nearly ceased; the os was fully dilated, and the mass was clearly a portion of the placenta. As the membranes were intact, they were at once ruptured; and in a few minutes the child was born. The after-birth came easily away five minutes afterwards, and with it some clots, so firm, that they felt like pieces of flesh, requiring some force to break them down. There was slight *post partum* hæmorrhage. The child was quite livid; the arms were folded on the chest, and the thighs flexed on the abdomen. The jaw was firmly fixed; so was the head and the extremities. The abdominal walls were flaccid, but the back was partially set. It was with the greatest difficulty I could get my finger into the mouth; and, in order to extend the extremities, the body of the child had to be firmly held.

The woman stated she received a severe fright the previous evening, but believed she was at her full time. The movements of the fœtus were so troublesome that she slept little that night. It was last noticed at about 4 P.M., two hours before labour set in. The hæmorrhage was nothing to speak of until about 9.30, when it became very severe, but only lasted about half an hour. She was confined shortly after 11 P.M. When seen, she did not present the appearance of having lost much blood. No ergot had been given. I think it may be fairly presumed that death of the fœtus took place during the excessive loss of blood—*i. e.*, about an hour and a half before its birth. It has been my misfortune to have been present at the births of many still-born children, whose deaths had varied from minutes to days before birth, but I have never before seen a fœtus with rigor mortis at birth. It would be interesting to know if any other practitioners have met with a like case, and if so, what were the circumstances attending each case. Here the woman had received, on the previous evening, a severe shock; there were partial placenta prævia, severe flooding only for about thirty minutes, delivery in an hour afterwards, and the blood coagulating rapidly and very firmly.

CLINICAL MEMORANDA.

WOUNDING THE PERICARDIUM IN PARACENTESIS.

As it has been suggested with regard to Dr. Shingleton Smith's case of rapid effusion into the pericardium, for which I performed paracentesis, that probably a sharp pointed cannula was used, and thereby bleeding produced, I wish to state that a trocar and gilt round edged cannula were used; that, upon the trocar being removed and the aspirator brought into action, clear serum flowed freely, and continued to do so for five syringefuls, after which the fluid became suddenly of bloody consistence and colour. This is easily explained. At first, the cannula was almost stationary, but, as serum was drawn from the distended pericardium, it began to oscillate, and latterly moved freely like a pendulum. I felt the heart scratch against it at the moment blood came, and immediately removed the instrument. The small quantity of blood, which flowed into the pericardium, did no harm; on the contrary, it formed a soft separating medium between the irritated opposing surfaces of the membrane, and thereby conduced, I consider, to the happy termination of the case. CHARLES STEELE, F.R.C.S., Clifton.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

THREE CASES OF ACUTE SEPTICÆMIA ACQUIRED OUTSIDE THE HOSPITAL.

(Under the care of Mr. ERICHSEN and Mr. CHRISTOPHER HEATH.)

[Abridged from the Notes of the Surgical Registrar, Mr. RICKMAN GODLEE, M.S.Lond.]

THE first of these cases was remarkable on account of the tender age of the patient and the slight nature of the accident which caused the pyæmia. The second patient was delirious when admitted, and the cause of his illness was obscure; the interesting point of the case was the extensive diphtheritic ulceration in the large intestine; Mr. Godlee states that he never heard of this as a complication of pyæmia, and can find no reference to it in any work on pathology. The third case was remarkable on account of the long interval which elapsed between the receipt of the injury and the development of the secondary disease, and for the rapid course of the latter when once established.

All three were examples of a class of cases which is more numerous than the perusal of some works on surgery would lead their readers to believe. They were all instances of acute blood-poisoning, not due to "hospitalism", but originating outside the institution, though two of them helped to swell its table of deaths from "preventable surgical diseases".

CASE I. *Multiple Pyæmic Abscesses following Slight Injury of a Finger in a Child, three years old.*—A little girl, three years old, was brought to the hospital on March 5th, 1874. She had a sloughing wound on the middle finger of the left hand opposite the joint between the proximal and middle phalanges; she had also an abscess in the palm of the left hand, and another in the ischio-rectal fossa. The mother stated that her child had been remarkably healthy until about a fortnight previously; she then ran a splinter into her left middle finger; a whitlow formed, and the suppuration extended into the palm. The finger was lanced by a doctor, but, on discovering the ischio-rectal abscess, he sent the little patient to the hospital. The family history was good: no tendency to phthisis or scrofula.

March 10th. The ischio-rectal abscess was opened soon after the patient's admission; it discharged a considerable quantity of fœtid pus. The wound on the finger still looked sloughy; the end of the proximal phalanx was necrosed; a good deal of thin shreddy pus was discharged from the palm. Temperature, 100.8. Pulse, 144. Appetite fair.

March 18th. A small abscess over the lower ribs on the right side was opened yesterday.

March 20th. An abscess had formed in the calf of the right leg, and another over the inner condyle of the femur; these were opened to-day by the antiseptic method. The abscess on the abdomen was discharging, and there was an abundant discharge of fœtid pus from that by the rectum. The general condition was much the same.

March 24th. Another abscess over the right trochanter was opened to-day, and a large pustule had appeared about three inches lower down, but the sore on the finger looked healthier, and the other wounds were healing. The necrosed bone had come away from the finger.

March 31st. The abscesses on the calf and over the inner condyle were healed. The opening in the palm was almost closed, and so was the wound in the finger. There was still some discharge from the ischio-rectal abscess and from that over the lower ribs, but it was of a more healthy character.

This was the beginning of a very tedious convalescence; the child was very weak and emaciated, and the wounds healed very slowly, so that it was not till May 5th, five weeks later, that they were all closed and the little patient was discharged comparatively well.

CASE II. *Diffuse Cellulitis of Right Thigh and Side of Trunk: Diphtheritic Ulceration of the Large Intestine.*—A commercial traveller, aged 31, was admitted under Mr. Heath, on May 1st, in a very low and depressed state of body and mind; expression anxious; slight icterus of conjunctiva; muttering delirium, occasional picking of bedclothes; pulse, 120; temperature, 102; respirations 32, chiefly thoracic. The patient lay dosing with his knees drawn up; the abdomen was tender everywhere, and very tympanitic; he vomited everything that was given him. There was a purplish-red blush over the right groin, extending about an inch and a half above and below Poupart's ligament, and outwards over the iliac crest. The inflamed surface was very tender, but no fluctuation could be detected; there was no œdema of the leg, no fulness or tenderness of the veins, and no special enlargement of the inguinal glands.

All that could be ascertained about the patient's antecedents was as follows. On April 24th, while walking along, he suddenly experienced intense pain in the right groin, and was compelled to sit down for a time, when it got better; but in the evening he began to feel very ill, with aching pain in the back and limbs and severe frontal headache. These symptoms continuing, he came to the hospital on the 26th. He was given some pills and medicine and ordered to apply hot fomentations to the groin. The redness in the groin appeared on the 27th, and gradually spread. On the night of the 29th, he became delirious, and the distension and tenderness of the abdomen began. His bowels acted freely on the 26th after the pills; the vomiting only commenced on the day of his admission to the hospital. No history of any local injury could be obtained, except that he "thought he had strained himself two months before in moving a heavy case of books"; but he had no pain or other symptoms in the interval between that and the present illness. He was ordered enemata of brandy, eggs, and strong beef-tea, and poultices over the abdomen.

During the next three days, the patient continued restless and delirious, but generally answering rationally when spoken to; the sickness continued, and his tongue became dry, brown, and fissured. The erysipelatous redness spread up to the axilla and over the back; the skin became mottled red and black, large blebs formed, and, in spite of incisions made by Mr. Heath, actual sloughing commenced. The patient steadily sank, and died on the evening of the 5th.

A necropsy was made seven hours after death. On reflecting the skin from the right side of the abdomen and the upper part of the thigh, the cellular tissue was found to be infiltrated with pus, which had even spread deeply among the muscles; sloughing of the muscles forming the floor of Scarpa's triangle was in progress; the inguinal glands were enlarged and softened—just breaking down. The veins were healthy, and no distinct cavity containing pus could be discovered. On opening the abdomen, the intestines, especially the colon, were found greatly distended, but there were no distinct traces of peritonitis. The mucous membrane of the small intestines was found to be injected. In the cæcum and ascending colon, were several circular ulcers, covered with dark sloughs and surrounded by areas of intense hyperæmia. The whole of the transverse colon was covered by one continuous layer of thin grey slough, which was quite superficial, extended over about half the circumference of the bowel, and was surrounded by a bright red margin; isolated patches of a similar character were found in the descending colon. There was hypostatic congestion of the lungs and kidneys, but nothing else of any special importance.

CASE III. *Septicæmia following Lacerated Wound of Forearm, Acute Joint Affection, Jaundice, etc.*—A shoemaker, aged 46, was admitted under Mr. Heath's care, on May 28th, with the following history. About a month before, he had pushed his hand through a pane of glass, cutting his left forearm severely; a flap of skin, which was almost separated, sloughed away, but the wound soon began to heal, and the patient continued very well till about ten days before admission, when he had an attack of sickness and diarrhœa, and began to feel weak and ailing. These symptoms increased, and on the 27th, he came to the hospital complaining of great weakness; he was scarcely able to walk without assistance, but he was in no pain; his temperature was normal; the wound looked pale and sluggish, but nothing particularly wrong could be detected. Next day, he was again brought by his friends, evidently much worse, and was admitted.

On admission, the patient was deeply jaundiced; his expression was anxious, his intellect dull; the wound on the inner aspect of the left forearm was pale, smooth, and glazed. There were redness and swelling of the joint of the right great toe, both knees, and left elbow, and great pain on moving almost all the joints of the body. The skin was hot and dry; temperature, 101; pulse, 108; respirations, 42. He had occasional slight rigors. The liver was evidently enlarged, reaching two inches below the margin of the ribs in the mammary line. Moist *râles* were heard all over the chest.

Next day, the patient was weaker and more restless; the jaundice had increased; he was sweating profusely, and the pain in the joints continued. He sank rapidly, and died on the morning of the 30th. His blood was examined microscopically for bacteria, but with a negative result.

The *post mortem* examination discovered nothing worth recording. All the tissues of the body were stained with bile-pigment. The liver weighed seventy-two ounces, but was firm, and there was no obstruction of the bile-duct; the veins in the neighbourhood of the wound appeared healthy.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

NOTES OF SIX CASES OF HYDATIDS OF THE LIVER TREATED BY PUNCTURE.*

By J. B. BRADBURY, M.D., F.R.C.P., Linacre Lecturer on Physic, and Physician to the Hospital, etc.

I THOUGHT it might afford material for profitable discussion if I brought before the Section notes of six cases of hydatids of the liver which have been treated in Addenbrooke's Hospital within the last two years, and offered a few remarks upon them. By a singular coincidence, four of these cases were in the wards at the same time—a most unusual occurrence in this country, but not so rare, I presume, in Iceland, where the disease is very prevalent. I will first read the notes† which have been preserved of the cases, and then comment briefly upon them, and more especially upon the mode of treatment adopted.

CASE I.—Wm. Basham, aged 35, married, a silk-weaver, living at Haverhill, was admitted into the hospital April 23rd, 1873, under the care of Dr. Bradbury. He appeared a very healthy man, and gave the following history of his ailment. Last harvest twelvemonth, when he was working hard in the field, he noticed that he was rather short of breath; that work which he was formerly able to do comfortably, then produced some dyspnœa, but gave him no pain. Ten months previously to his admission into the hospital, he first discovered that he had a tumour on the right side, his attention being directed to it by the pain it was giving him. He was laid up for a fortnight. The pain decreased under medical treatment, and he was able to resume work; but since that time he had had frequent pain in the tumour, increased, according to his statement, after exposure to cold. The pain was of a dull aching character, was increased by fast walking, and produced a feeling of great weight in the part. He frequently had to hold the tumour when walking. Stooping or pressure on the tumour by his trousers sometimes made him feel sick, and occasionally he vomited. There had been no symptoms at any time of portal obstruction. The tumour was found to occupy the epigastric and both hypochondriac regions; it extended to within an inch of the umbilicus. The girth of the abdomen, at a point midway between the umbilicus and the sternum, was 38½ inches. On percussing, the middle finger being placed over the tumour, with the ring and first fingers separated, a thrill was imparted to the two latter. The hepatic dulness extended to within an inch of the right nipple.

May 21st. He had more pain in the tumour. He occasionally vomited, especially after stooping. The urine contained a trace of albumen, and its specific gravity was 1017.

May 27th. At 12 o'clock to-day, a fine trocar was introduced by Dr. Humphry into the most prominent point of the tumour in the left hypochondriac region, and a clear fluid was drawn off; it contained a large quantity of sodium-chloride, and no albumen. Later on, the fluid became opalescent, like milk and water. Altogether, twenty-four ounces were withdrawn. The fluid was neutral, and its specific gravity 1005.—7 P.M. There was no tenderness over the abdomen, but he complained of a little pain near the point of puncture. Tongue red and moist; no thirst; slight headache.

May 28th. Tongue red and moist. The bowels had not acted since yesterday morning. His appetite was somewhat impaired. The headache was less than last night. He had no tenderness over the abdomen; no distension. He had no sleep through the night.

May 29th. Bowels constipated; tongue clean and moist; much headache. He slept very badly. Habeat sodæ citro-tart. efferves. ʒj statim.

May 30th. The bowels had not acted since the 27th. He was ordered half an ounce of castor-oil.

May 31st. After taking the oil, he had a sharp cutting pain; and at 3 A.M. the pain was so severe that a third of a grain of hydrochlorate of morphia was injected subcutaneously. After the injection, the patient passed the remaining part of the night with great ease, and slept well for some time. At 9 A.M., he had less pain in the head than he had had for some days. Tongue rather dry, and covered with a slight yellow fur. There was no tenderness over the abdomen.

June 1st. He slept a little better last night. The bowels were opened in the night, and again this morning; the motions were natural. His appetite was fairly good. He had not much thirst now, and less headache.

June 2nd. He slept badly. He fainted twice in the night, and was very faint at the time of making this note. There was still a prominence in the left hypochondriac region. The conjunctivæ were a little yellow. The urine contained no bile.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

† I desire to express the great obligation I am under to Mr. H. F. Banham, M.B., House-Physician of Addenbrooke's Hospital, for the valuable assistance rendered me in preserving notes of the cases.

June 3rd. He slept through the night, and felt decidedly better this morning. He sat up for an hour yesterday.

June 14th. He was ordered a mixture containing a grain and a half of quinine, to be taken thrice daily.

June 17th. The upper part of the abdomen was still much enlarged, almost as much so as before the tapping. The enlargement was most marked in the left hypochondriac region. His appetite was fairly good; his bowels regular. He had no thirst. Tongue furred and somewhat dry. The urine was of specific gravity 1017, neutral, and contained no albumen.

June 19th. The urine contained a trace of albumen.

On June 24th, the urine was again free from albumen.

June 27th. Twenty-four ounces of fluid were withdrawn from the tumour. The fluid was neutral, its specific gravity 1005; it contained no albumen, but much sodium-chloride.

June 29th. The urine contained a trace of albumen.

July 4th. The patient had a somewhat anxious expression, and complained of feeling very weak. (It should be mentioned that he was a very nervous man.) Pulse 140. There was no pain in the abdomen. He took his food moderately well. Tongue clean and moist.

July 6th. The urine was still albuminous. The girth of the abdomen was 40 inches at a point midway between the umbilicus and the lower end of the sternum. The tumour had much increased in size during the last few days, and felt softer. It was still much more prominent in the left hypochondriac region; and here it was much more elastic than it was some weeks back, or before the first tapping. At 10.30 A.M., Dr. Humphry introduced a small trocar, and purulent fluid escaped. He then introduced a larger trocar and cannula. The fluid which first escaped was almost clear. Afterwards, however, it answered to the true characters of pus; and with it there escaped also numerous hydatid vesicles, varying much in size, the largest being about half the size of a racquet-ball. The cannula became frequently blocked up, and was cleared out by a feather. About eighty ounces of fluid were drawn off. During the operation, the patient took small quantities of brandy, and seemed to suffer no exhaustion. He was ordered one pint of beef-tea and two pints of milk for diet. Immediately after the tapping, the pulse was 100, the respirations 25, and the temperature 100 deg. Fahr.

July 7th. He had but little pain through the night, and slept fairly well. There was still some discharge from the tube; no marked tenderness of the abdomen. About four ounces of fluid, containing cysts, were again withdrawn by means of a feather. This mode of emptying the sac by a feather, although a very simple one, was found to be singularly efficacious. A shaft of a feather was taken, and the barbs were removed from one side, leaving a flexible rod with a series of projecting hooklets, those on the other side being cut short. By this means, the hydatids were caught and drawn through the cannula.

July 8th. The urine was free from albumen. He was progressing favourably.

July 9th. The feather-shaft was again introduced into the cannula, and 13 ounces of pus and numerous hydatid cysts were brought away. The bowels acted freely last evening, after a common injection.

On July 12th, 7½ ounces of fluid, containing small hydatid vesicles, and on the 13th, 8 ounces of fluid of the same character, were removed from the cyst by the feather-contrivance. There was also a free natural discharge of fluid through the cannula on these days. He had improved in general appearance since the 6th.

July 17th. There had been no discharge from the wound since the 14th.

July 18th. Several cysts and 3 ounces of pus were brought away yesterday.

July 20th. About 4 pints (80 ounces) of pus, containing numerous vesicles, were brought away through the tube by means of the feather-shaft. The general condition seemed to be improving. The urine was alkaline, and contained a deposit of ammoniaco-magnesian phosphates, but no albumen. He was ordered the following draught, to be taken thrice daily. ℞ Acidi nitrici diluti ♏xv; tincturæ cinchonæ ʒj; aquam ad ℥j. M.

July 22nd. There was rather a sudden rise of temperature to-night. He stated that since the 20th he had been unable to lie on his back for long, as this gave rise to a feeling of numbness in front of the abdomen. Spongio-piline was applied to the abdomen.

July 26th. He sat up for a short time yesterday, and to-day sat on the colonnade. Appetite good. There was still a free discharge through the tube, and yesterday two vesicles came away spontaneously.

July 29th. A laminaria-tent, introduced into the wound for the purpose of widening the orifice (the cannula having been withdrawn), passed accidentally into the abscess-cavity, and all effort to remove it failed. It was owing to the strings which held the tent having cut through it, that this accident happened.

July 31st. He complained of the "tent" pricking his side, and seemed restless, and much concerned lest the tent should not be removed. In the evening, the tent came away, and a large drainage-tube was introduced. He was ordered a draught containing 15 grains of chloral hydrate.

August 11th. The cavity was washed out with a solution of carbolic acid (2 per cent.), and 2 ounces of a solution of iodine were injected. The urine was free from albumen.

August 14th. There was very little discharge from the wound, and the little there was was very fœtid (having the odour of sulphuretted hydrogen). There was no tenderness of the abdomen.

August 15th. The sac was again washed out, and a solution of iodine (6 drachms of the tincture to a pint of water) injected. The same treatment was adopted on the four following days.

August 23rd. About 12 o'clock, the cyst was cleared out by Dr. Humphry, and a solution of iodine of the usual strength injected. The patient at once complained of great pain, and went to bed. About 1 P.M., he was seized with a very violent rigor, which was followed by great collapse. After taking some brandy, and a draught containing sal volatile and chloric ether, he rallied. In the evening, he was sick, and the temperature was 102 deg. Fahr. During the night, he was better, having less pain, and slept at intervals.

August 24th. Morning temperature 99.2 deg. Fahr. He had had no more sickness. There was no distension nor great tenderness of the abdomen.—Evening. He was sick once during the day. A good deal of dark and offensive discharge had come away through a tube introduced into the cyst.

From this time, his progress towards recovery was uninterrupted, and on October 13th he had quite the appearance of health; his appetite was good, and he stated that he felt quite well. His breathing was not embarrassed, except on great exertion. The liver-dulness began about two inches and a half below the right nipple, and extended to two finger-breadths below the ribs. There was no increase of dulness towards the left.

On December 20th, the liver-dulness was found to be normal, and the opening in the abdomen had quite healed.

He was discharged cured on January 10th, 1874, when he stated that he felt better than he had done for years.

[*To be continued.*]

REVIEWS AND NOTICES.

NOTES ON SURGICAL NURSING: Being a short course of Lectures delivered at the Training School for Nurses in connection with the Liverpool Workhouse. By J. H. BARNES. London: J. and A. Churchill. 1874.

THE title of this little work recalls to mind *Notes on Nursing* written by Miss Florence Nightingale in her felicitous style some years ago.

The work before us on "Surgical Nursing" is now published in the hope that it may prove "useful as a slight introduction to a systematic study of the science of nursing". It might have been designated "Brief Notes on Surgical Nursing".

The subjects of the lectures are grouped under five heads: 1. Introductory; 2. Observation; 3. General Duties; 4. Injuries and Accidents; 5. Fractures and Operations.

Under the second head, the author very properly insists on the necessity for accuracy in observation; and directs attention to many important subjects for observation, embracing the building containing the sick, the wards, their contents, and their occupiers. The notes on changes due to remedies are good though brief. The general duties of the nurse are considered in the same order, viz., with respect to the wards, contents of the wards, and the patients. A very necessary warning against overfeeding is given. In speaking of the administration of medicines, the author makes a statement which seems to require some modification. "As a rule, medicines of an alkaline nature, such as those containing soda or potash, are given before food, while those containing acid, iron, fats and oils, are given after food." Under this heading there occurs a short dissertation on some eye diseases.

The fourth and fifth chapters are very good so far as they go; but we think that the wants of a nurse would have been better satisfied if more details had been afforded. It would be more to the purpose to instruct a nurse in the padding of splints than the manner of making gutta-percha splints. We miss instructions in the use of the thermometer, administration of enemata, dressing blisters, subcutaneous injections, application of leeches, etc.

Clinical Atlas of Skin-Diseases; being Delineations of Cases as they actually occur. By H. Stanley Gale, M.B.Lond., Physician to the Manchester Skin Hospital. London: H. Kimpton, High Holborn. 1874.

We thought that Mr. Pennefather had struck the lowest depth of caricature in the daubs which he appended to a little book on ear-disease. Dr. Stanley Gale has contrived to find a depth lower still. The headings of penny chap-books are in a higher style of art than these scrawls, which Dr. Gale labels with the names of skin-diseases. The author is partly conscious of the character of these drawings, for in his few lines of preface he writes, "I feel it necessary to say that any little skill as a draughtsman which I may have had has long since disappeared"; and, again, he pleads on behalf of his sketches (for which, however, he wrongly claims verisimilitude), that they are, like the dog of Dickens's toy-maker, "as near nature as you can expect for sixpence". Nothing, however, could well be further from nature. They would disgrace the notebook of a student, and we are very sorry to see the name of a graduate of the University of London prefixed to productions of such badness. The title might possibly mislead a practitioner or a student into thinking the book suitable for his use; otherwise it would be unworthy of notice.

NOTES ON BOOKS.

The eleventh number of the *Birmingham Medical Review* (July 1874) is a very good one. It contains a paper on Removal of the Eyeball, by Mr. A. Bracey; Notes of a Case of Double Optic Neuritis, with Remarks, by Mr. Lloyd Owen; a paper on the Treatment of Non-Suppurative Catarrh of the Ear, by Mr. John St. J. Wilders; one on Localism or Non-Localism in Cancer, by Mr. Furneaux Jordan, etc.; with a serviceable Periscope, and unusually good reviews and notices of books.

SELECTIONS FROM JOURNALS.

SURGERY.

Drainage in Obstinate Chronic Inflammation of the Bladder.—Dr. Hunter McGuire reports (*Virginia Medical Monthly*) a case of "chronic inflammation, and probably ulceration of the bladder", of eight years' duration, successfully treated by drainage. Instead of effecting this by opening the vesico-vaginal septum, as done by Simpson, Emmet, and Parvin, he introduced a piece of gum-tubing, the portion of which to be introduced into the bladder was perforated by a shoemaker's punch, with holes half an inch apart. A straight silver tube was first passed into the bladder, and the gum-tubing introduced through it; the silver tube was then withdrawn, and the gum one secured in place, and the free end put into a bottle to catch the urine. A vaginal suppository of morphia and belladonna was introduced. The catheter was removed and cleaned, a new one substituted whenever necessary, and the vaginal suppository was also repeated every twelve hours. Afterwards Dr. McGuire substituted a large silver catheter, nearly straight, with a large vesical opening for the gum-tube. At the end of six weeks a gum-bag was attached to the free end of the silver catheter, so as to allow the patient to get up and walk about. This treatment was continued for four months, when the tube was removed from the bladder. There was for some time afterwards incontinence of urine, but the bladder gradually regained its healthy power, and eight months after the commencement of the treatment the patient could retain her urine for about three hours, and void it without pain; and, except the increased frequency of micturition, which was growing less, the patient was reported to be well.

Traumatic Aneurism of Neck: Left Common Carotid tied with Permanent Silver Wire Ligature.—Dr. R. W. Gibbes, late Professor of Anatomy and Surgery in the University of South Carolina, reports (*Charleston Medical Journal and Review*, January, 1874) the case of a coloured man, aged 40, who was shot in the chin, November 19th, 1872. On December 16th, there existed no doubt of the formation of a consecutive diffused aneurism. The left arm was almost completely paralysed. On December 9th, the patient was operated upon, the usual incision being made along the anterior border of the sterno-mastoid muscle. The artery was raised on a grooved director, and the aneurism-needle, armed with a small double silver wire, passed under it. The *bruit* heard under the stethoscope ceased immediately when the wire was drawn upon so as to occlude the canal. It was tied in a common reef knot, the ends being cut off close, without having constricted the vessel sufficiently to divide either coat. The ends were turned against the vessel, or rather upon the constricting noose, and the wound closed by four silver wire stitches, including the thickness of the platysma myoides in each. Two strips of isinglass plaster were applied, and the upper part of the wound covered with collodion. Close behind the upper end of the incision, Dr. Gibbes found and removed a small piece of the conical ball. The rest of it could not be found, having injured not only the artery, but a part of the brachial plexus. One year after the operation, the patient was examined. The paralysis of the right leg was much diminished, but still quite perceptible, and he walked well with a cane. The loss of power in the left arm (caused by the wound) was somewhat improved. He used it in eating, and in cutting wood, and could grasp one's hand pretty firmly in his palm, but not with the ends of his fingers. On applying the stethoscope, a loud bellows sound was heard, occupying the whole left carotid region from the sterno-clavicular junction to the angle of the jaw; it ceased the instant that his head was extended, or his face slightly turned to the right, and also as soon as slight pressure was made on the vessel pulsating immediately behind the corner of the os hyoides. Whether this was the lingual or the superior thyroid, Dr. Gibbes could not determine, but thought it was the latter. The carotid was felt pulsating strongly above the point of ligation, but below it appeared as a firm cord, with only a slight impulse communicated from the arch of the aorta. Dr. Gibbes said he could not feel the double constricting wire, but, when the finger pressed firmly on the spot, the patient said he felt it.

OBSTETRICS.

The Misuse of Warm Baths for New-born Infants.—M. Jules Simon, in an article in the *Lyon Médical*, deprecates the use of warm baths for new-born infants, when repeated too frequently at intervals of five or six minutes. It emaciates them and predisposes them to coryza. Warm baths are useful to children of a nervous temperament, with constipated bowels when attacked by acute colic, but they are sometimes just the cause of the persistence of that intertrigos, for which it is thought necessary to continue them, which, however, disappear so soon as astringent lotions are substituted for the baths. M. Simon has but little confidence in baths of sublimate of mercury for infantile syphilis, and prefers mercurial frictions in conjunction with internal administration of Van Swieten's liquor.

Hydrate of Chloral by the Rectum in the Vomiting of Pregnancy.—Dr. D. B. Simmons, Chief Surgeon to Ken Hospital, Yokahama, Japan, reports (*New York Medical Record*, June 1st, 1874) four cases of excessive vomiting of pregnancy in which thirty-grain doses of chloral morning and evening, administered in mucilage by the rectum, afforded marked relief. Should another opportunity offer, writes Dr. Simmons, for a trial of this plan of treatment, we have decided to commence with larger doses, being convinced that a decided impression, produced by the medicine at first, will require its repetition but two or three times to put an end to the disease, for the time at least.

Inversion of Uterus: Prompt Replacement.—Dr. G. W. H. Kemper reports (*Indiana Journal of Medicine*, March, 1874) an example of this in a woman, aged 33, in her sixth labour. Fifteen minutes after the birth of the child, a violent pain came on which expelled the placenta beyond the vulva, and completely inverted the uterus. His first suspicion of an inversion was caused by the uterus escaping his grasp above the pubes, and disappearing into the pelvis. There was no unusual amount of hæmorrhage, and her pulse was good. There was not the least tendency to shock, and the woman was not aware that anything unusual had occurred. Dr. Kemper hastily separated the placenta, which was adherent to the fundus. Pushing his right hand through the vulva into the vagina, while steadying the tissues above the pubes with his left, he indented the fundus with the tips of his fingers, and maintained a constant steady pressure in the direction of the axis of the pelvis. In about five minutes, his efforts were rewarded with success. He kept the hand in the uterus for a few moments and satisfied himself that every portion had been fully restored, and the outlines of the organ distinctly perceptible through the abdominal walls. Dr. Kemper states that he had made but slight traction on the cord, not sufficient to cause the inversion.—*American Journal of Medical Sciences*, July, 1874.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 17TH, 1874.

THE RELATIONS OF FOOD AND FORCE.

FOR some time we have been growing more and more familiar with the idea that all force manifested by animated beings is originally furnished to them in the form of food. Such force is originally stored up in plants, which, with the exception of the Droseraceæ, a meat-eating order, usually show no evidence of dynamic energy. In them, force is stored up in static equilibrium, in the form of organic principles, which, when oxidised in the bodies of animals, produce an equivalent of energy. The locomotive which whirls a weighty train from one point of the kingdom to the other, does so by means of the fuel carried on the tender. That fuel represents so much force stored up, in a static condition of latent energy, by vegetable life, myriads of years ere man discovered the use of coal; and now, by undergoing oxidation—the exact reverse of the process of deoxidation to which it was subjected by the flora of bygone ages—the force once more resumes an active condition. In evolving this energy, the hydrocarbon is broken up and oxidised into carbonic acid and water; and these ultimate products will be again deoxidised by vegetable life, and form so much static force for future manifestations.

So it is with the food of man. From inorganic matter, plants have constructed complex organic compounds, which are either consumed by man directly, or undergo further elaboration in the bodies of herbivorous animals, and then become the food of man. Such food is consumed and digested, and then in its oxidation assumes the form of manifest energy; it may be in the shape of a walking tour, a sustained literary feat, or an ingenious invention.

To make the matter clearer, we may trace the process. On the hills of Surrey or the downs of Sussex, there grow various forms of vegetable life, which convert the carbonic acid of the atmosphere, and the watery vapour of air, into carbo-hydrates stored up in their tissues. Sheep browse upon these plants, and the carbo-hydrates are converted into glycogen, and then into fat, muscle, sugar, etc., in the sheep. The sheep, when fat enough, passes into the hands of the butcher, and furnishes tallow, which lights us to bed in the form of a candle, the oxidised hydro-carbons forming light; and mutton, which forms a portion of the food of man. Of this mutton, a part, say a chop, is eaten by a business man, and furnishes, in its combustion, the force which counts up rows of figures, and becomes so much correspondence in a pile of letters. The saddle furnishes to several members of a dinner-party the energy which carries them next day through a long *levée* or a day of pleasure, and then is utterly consumed in a ball at night. A portion of the leg is soberly eaten at a family dinner, and furnishes to the father the force which creates a literary composition; it endows the domestic head with the energy required to look after her household duties, and enables Huz the first-born, and Buz his brother, to grow out of their clothes, to play at cricket and to learn their lessons. These different outcomes are nothing more than various forms of force, all originally derived from the plants on which the sheep browse. Perhaps a portion of the brisket furnished the force which is clinching a rivet in the sides of the ironclad in Messrs. Samuda's building yard.

Man derives his force from his food; the oatmeal-porridge of Robert Burns contained potentially "The Cottar's Saturday Night"; and "Measure for Measure" was only the transmuted form of Shakespeare's viands. But, before either transformation was possible, that alchemist crucible, the brain of the thinker, was indispensable. That very food in other systems might have taken the form of a wild debauch, or of the sustained ravings of acute mania—of a desperate struggle in battle, or of tender dalliance. From his food man derives originally any force that he may manifest. He supplies from it not only the daily needs of his existence, but he also stores up force in reserve, as a force-capital. From this capital he draws in any exertion, he pays in again with every meal—provided it be digested and assimilated. From this fund of stored-up capital he draws the force necessary for the continuation of his existence, when a quinsey obstructs his swallowing, and on the reserve indeed he lives. But that withdrawal of force has been accomplished at the loss of so much weight; there has been a certain consumption of his stored capital, or, in other words, of his body-weight. Or, under other circumstances, he is exposed to a cold chill night on the open moors without food or shelter. He maintains his temperature, and evolves the force requisite for the maintenance of respiration from the reserve-stores in his system. Such is the store on which the shipwrecked mariner lives until he is picked up. Body-wasting tells of the consumption going on in the famished system. Accident and experiment have alike demonstrated that the reserve-fund of ordinary animals represents a certain fixed amount. In man, this is equal to the expenditure of from eight to ten days' force. In other words, man's reserve is equal to ten days' outgoings. Such is the time a shipwrecked sailor, or an imprisoned miner, or a dying person past anything but mere moistening of the lips, will survive. The fund of force-capital will, alone and unsuccoured, carry a man over ten days' ordinary outgoings. In the hybernating animals, the stored-up fat, its consumption economised by a cosy non-conducting medium around, and a body-temperature as low even as 34 degs. Fahrenheit, is sufficient to support the life of the animal through a long winter.

The necessity for food to maintain the temperature is seen in the daily allowance of fat to the Esquimaux in winter, and in the tendency for the Arctic voyager to consume inordinate quantities of fat, by which means he sustains the extreme cold. As a contrast to this may be adduced the case of the *Arracan*, a barque which was recently burned in the Indian Ocean. There were four persons in one boat, with provisions which, though carefully husbanded, were consumed on the fifteenth day. After this they had only one bird devoured among them, and sea-blubber for which they dived, an unknown factor, and some blood from the head of one of themselves. Yet for seventeen days longer did these unfortunates survive, when they were picked up by a passing ship. Ultimately all recovered. The conclusion which is unavoidable is, that this long survival was alone rendered possible by the high temperature which surrounded them. Had they been in cold regions they would soon have succumbed, because their stores would have been burnt out, expended in maintaining their body-temperature, and so would not have been available for conversion into action.

In the same way the stored-up force of the body can, with very slight aid, maintain life for about ten days in the sinking invalid, if the person be in bed, with the loss of body-heat reduced to a minimum by bed-clothes, and the demands upon the system also reduced to the lowest point. If exposed to cold, the invalid would soon sink in the attempt to maintain a temperature compatible with life. But, protected against such loss, the body-stores are available for other ends, viz., the manifestation of force.

It would appear that, while all manifestations of energy evolve heat as an outcome of the combustion going on, whether in muscular or in cerebral action, the converse does not hold; and the food-fuel, freely burnt by the Esquimaux to maintain his temperature, does not in undergoing oxidation produce any obvious action, or serve any other end than the mere production of heat.

Hydrocarbons furnish the bulk of our acting force, and are the fuel of the body *par excellence*; but nitrogenised materials also furnish force in their oxidation, though to a much less extent. Nitrogenised food rather evokes the manifestations of energy than provides the material convertible into force. This subject will engage much of our attention when considering the question of the relation of stimulants to the body-fund of force, in the treatment of disease.

In the normal condition of man, the daily production of energy is regulated by the amount of food taken and assimilated, and especially by the nature of that food. It is well known that a man cannot undergo, without a distinct sense of fatigue, the same amount of physical exertion after a meal of fish that he can after an equal weight of beef or mutton, or still more of bacon. It is not by any means equally well known that the same holds good of intellectual effort. It is not our own individual experience merely, but that of observant friends, that a sustained effort of several hours' continuous writing is quite feasible after a breakfast of fat bacon, which is impracticable after an equal quantity of fish. The concentrated force-bearing food, animal fat, is, weight for weight, convertible into a much larger and more serious piece of brain-work than is a less concentrated form of food, as starch, or even than fish, laden with phosphorus though fish may be. Such is a simple fact. On the other hand, when there is a good reserve-fund of force capable of meeting heavy demands, then a meal which may contain rather those constituents which are manifestors of energy than the bearers of force—which enable the individual to convert his stores into actual force—may enable that person to evoke a larger amount of force than he could evolve by a meal of force-bearing food. It is obvious, however, that such demands upon the reserve fund must be made in moderation, else the physiological capital will be reduced below the safe minimum, and the man will be approaching the verge of physiological bankruptcy. The widespread use of neurotics, especially of nitrogenised vegetable stimulants, over the face of the globe, stands in a curious relationship to the manifestation of energy, to the conversion of hydrocarbons into force within the body. By such combination does man, and especially civilised man, find that he can get more out of himself; and, in the keen struggle for existence of modern times, some such combination seems actually necessitated. In the abuse of such means of giving out force do we find the explanation of much of the prevalent ill health, and even actual disease, of our times; the body-machine is worked at too high a pressure, and early exhaustion is induced. We are all familiar with the exhaustion produced in a woman, perhaps a strong and healthy girl at first, by repeated and quickly successive pregnancies and lactations. The organism is prematurely worn out by the excessive demands made upon it first by the fœtus, and then by the suckling babe. The mother's system is worn out, and she quickly succumbs to intercurrent disease, or falls into a condition of impaired health, of lowered vitality. She has largely exhausted her physiological capital in manifestations of force.

In the same way, at the end of a summer session, a member of a hospital staff may feel himself exhausted by the efforts made during the winter and summer sessions. He feels that a slighter and less sustained effort is sufficient to exhaust his powers, that a lighter day of toil is enough for him, and he seeks in the country, in fresh air, simple food, long hours of rest, and in pleasant and agreeable recreation or indolence, that restoration of his force-fund, that which he feels desirable, and even imperatively necessary. For it is not merely the storing up of fat, or muscle, or sugar in the body that is to be aimed at. Such accumulation alone is practically useless; it must be accompanied by the capacity to convert these stores into force, or it is of no avail. There must be also some action of the nervous system, at which we can as yet only guess, which produces the conversion, and which is indissolubly connected with an unexhausted condition of the nerve-centres. We all know that a man may be weighty and obese, and yet we recognise that he will not withstand a severe call upon him, such as by acute disease. We say he has not the requisite stamina in him; but what that stamina is, we do not yet know. We know that its presence endows him with resistive power, and enables him to successfully undergo severe demands upon his vital forces. He seems much in the position of a bank whose funds are locked up in securities which cannot be readily realised, and so are not practically available in the hour of need. It is nearly as bad as not having the funds at all.

Nevertheless, the stores of force which can be called out at the time of need, which furnish body heat, muscular action, or nerve-force, and intellectual labour, are all originally furnished to the system by the food taken in and assimilated—food either furnished immediately by vegetable forms or mediately through herbivorous animals; without food the system soon exhausts the reserve it normally possesses, and perishes by actual starvation. That reserve fund, too, is itself an important matter not only as a means of maintaining life when the system is from any cause deprived of nutriment, but also as a means of securing the active working of the system in its daily toil.

This division of the whole question may fitly be terminated by a brief consideration of the position of alcohol in relation to food and force. It has been too much the fashion to overlook the fact that alcohol is one of the most readily combustible of the hydrocarbons, and that in its oxidation it furnishes heat or force. The recent researches of Anstie and Dupré are establishing beyond doubt the oxidation of alcohol within the body; and, if that be established, alcohol is a force-bearing food, of a readily available character. After all, the navvy's notion that a pint of sound ale enables him to get through the last hour of his toil all the better, may not be an ill-founded one. For ale usually (the fuller bodied ales certainly) contains a large amount of carbo-hydrates in what the brewer terms "the saccharine", so that there is not only the alcohol, but also the other force-bearing material in a readily oxidisable form furnished to the organism in the much loved draught. That, in addition, the action of the alcohol upon the nervous system is such as to unlock a certain amount of the reserve-store, is something more than probable. Nevertheless, the borrowed sum may be repaid by the liberal supper, and the navvy or carter may have found out empirically the practically easiest, and, perhaps, even the most economical method of raising the force requisite for the discharge of the last portion of his day's labour. But, still, the ale does actually furnish a readily available force-bearing food, besides enabling the individual to borrow from himself.

From this, we may now proceed to consider the question of the treatment of disease, and the actual value of the measures to which we usually resort.

SCARLATINAL WAVES.

It has been the practice for many years to lay down, on properly ruled and numbered paper, meteorological and other observations, death-rates from various diseases, and other figures, by a line connecting together the observations or other figures, so that the highest point represents the greatest, and the lowest the smallest sums recorded. In this way, curves, or, as they are sometimes called, waves, are formed, running across the paper, and affording a ready mode of appreciating the variations which have occurred during the period for which the observations, etc., are laid down. These waves in some cases describe somewhat regular, in others very irregular curves; but in all cases they indicate, with less trouble than an examination of the figures themselves, the facts which it is wished to be conveyed to the reader. The term "a scarlatinal wave", therefore, means only the curve which a line passing from figure to figure would describe, so as to indicate the varying mortality from the disease in any period under discussion.

The scarlatinal wave for a year is nearly always at its lowest point in spring, and at its highest late in autumn, usually in the months of April and November. This may be called the annual wave, and varies but little in its course, whether the disease be epidemic or not; although, of course, the line will rise higher when a large than when a small number of deaths is recorded; but in nearly all cases the lowest and highest points will occur at the times of the year just mentioned. An examination of the deaths in the metropolis recorded during thirty-two years shows that the *lowest* point in each year was reached on fifteen occasions between the tenth and fifteenth weeks, and in nine others between the fifteenth and twentieth weeks; that the *highest* point in each year was reached on sixteen occasions between the fortieth and forty-fifth weeks, and on thirteen between the forty-fifth and fiftieth weeks. The total mortality in the thirty-two years, during the five weeks which are included between the beginning of the eleventh and the end of the fifteenth week, amounted to 5,204 deaths; whilst during five weeks which are included between the beginning of the fortieth and the end of the forty-fourth week in the same year, the deaths amounted to no less than 12,172.

Another wave, which may be called the *periodic*, may be represented by a line connecting together the mortality from the disease in each year, and indicates the years in which it is epidemic or non-epidemic. It is this wave especially to which Dr. Tripe, the Medical Officer of Health for Hackney, drew the attention of his Board in his annual report published in May last; and to both waves in another report recently read, which has been commented upon by several daily contemporaries. An examination of the mortality in each of the thirty-four years ending December 31st, 1873, shows that the disease was epidemic in 1840, 1844, 1848, 1852, 1854, 1858-59, 1862-64, and 1868-70; whilst the smallest mortality occurred in 1841, 1846, 1851, 1859, 1861, 1867, and 1873. It is, therefore, evident that the curve of the descending is much more gradual than that of the ascending wave, as the epidemic takes a longer time to subside than to rise again. The almost uniform recurrence of the disease as an epidemic, after three years of comparatively small mortality, is very noticeable in the figures just quoted.

An important question now arises; viz., What are the causes of this periodical increase in the height of the scarlatinal wave? Does it arise from seasonal influences, or other causes at present unknown? To this we can only reply at present, that the careful comparisons made by Dr. Tripe in 1848, and by Dr. Richardson some years afterwards, show that a temperature below 44.6 deg. Fahr. corresponds with the spread of scarlet fever; whilst a temperature above that point is coincident with an increase in the mortality; also that the greatest mortality in the year occurs when the temperature ranges between 49.6 and 56.9 deg., but that the increment in the mortality does not occur in the same ratio with the increase in the temperature. This latter conclusion might have been expected, from the comparative regularity with which the disease assumes an epidemic form every four years; whilst there are not, so far as we know, any corresponding sequences in any of the atmospheric phenomena. There is one important consideration respecting scarlet fever, as well as small-pox and other eruptive diseases which occur ordinarily only once in a person's life, which must not be forgotten; viz., that in the interval between one epidemic and another, a number of children are born who are susceptible to the disease from not having had it; and that the epidemic may chiefly take its origin by the disease occurring in localities where there are many children unprotected, and thus spread rapidly to persons in the immediate vicinity. This can scarcely explain its periodicity, although it accounts for the greater number of cases when the outbreak occurs; and we can only hope that a careful comparison of epidemics with atmospheric and other phenomena will lead to an elucidation of this problem, when a larger number of years can be compared than those at present under investigation.

We cannot conclude without expressing our opinion that, although scarlet fever cannot be entirely prevented by sanitary precautions, yet a careful and rigorous removal of nuisances and all causes of depreciated health will materially modify the intensity, and consequently the fatality, of the disease. We wish strongly to impress this view on all who are empowered to carry out the provisions of the various Sanitary Acts, whether they be vestrymen, members of local boards, or officers appointed by them; and urge upon them the greatest vigilance in detecting new cases of disease, and in disinfecting all articles of clothing and bedding, as well as in removing nuisances, especially as the present epidemic follows the smallest mortality which has been recorded in any year since that of 1840, and is, therefore, likely to be of exceptional severity.

DIPSOMANIA.

AT the meeting of the Social Science Congress in Glasgow, Dr. Alexander Robertson, Physician to the Town's Hospital and Asylum, Glasgow, read a valuable paper on the want of further legislation for persons labouring under mental disorder resulting from, or characterised by, excessive indulgence in alcoholic liquors.

In this paper, after a few observations on the importance and difficulty of the question, he referred to the attempt at legislation in the "Habitual Drunkards Bill". The belief was expressed that, though it was a failure, the difficulties of the problem are not insuperable. Some objections to that Bill were stated; for instance, its application to a class who deserve punishment rather than treatment. The Bill, it was contended by Dr. Robertson, fails to distinguish sufficiently between the intoxication which is voluntary and that due to a clearly diseased state of the nervous system; and the conviction was expressed that, in attempting to legislate on the subject, it is necessary to draw a line of separation at this point. Leaving out of consideration the ordinary forms of insanity resulting from the abuse of alcohol, special reference was made to the varieties of mental disorder, arising from that cause, which do not amount to ordinary unsoundness of mind, or, if they do, are but of short duration. These are, ephemeral mania, the occasional monomania of habitual drunkards, whose prominent features are suspicion and hallucinations; delirium tremens; dipsomania not associated with any of these other conditions; and they were briefly illustrated by cases from the writer's experience. It was shown, in regard to dipsomania, the chief of these varieties, that though in many cases it can with difficulty be distinguished from drunkenness as a vice, in the majority, according to the opinion of medical men most competent to judge, the diagnosis is not difficult. After this, the inefficiency of the existing provisions for the treatment of these less pronounced kinds of mental disorder was dwelt on, and then the course most likely in the writer's opinion to meet the requirements of the case was pointed out. Nothing but prolonged abstinence from alcoholic stimulants will suffice. This ought to be in special establishments, as ordinary asylums are not suitable. The period of confinement should be not less than three months, nor more than a year. The experience of such institutions in America is shown to be of special value. The average number of cures in them is stated by their physicians to be from 33 to 40 per cent. It is, however, held by other American medical men that the alleged cures in many cases had not been followed out sufficiently long after dismissal to warrant that conclusion. At all events, the results of trustworthy experience in this country have not been so satisfactory. This important point being at present doubtful, it was counselled to refrain from advocating any scheme which would entail an expenditure of public money, but simply to endeavour to get a Bill passed to legalise the confinement of dipsomaniacs in special establishments. Private enterprise would provide houses (old mansions) for those belonging to the wealthier classes, who would willingly pay for their friends, and even for themselves; philanthropy would assist in making provision for the more indigent classes; and, after public confidence was established in the measure, Parliament might be disposed, by a grant of money, to further its general development throughout the country. Lastly, the process (for Scotland) believed most likely to give public assurance that none but proper subjects are committed to these institutions was briefly stated. It should be an inquiry before a sheriff or his substitute, the individual concerned being present, with counsel if he choose. Two medical men, one of whom ought to be a public functionary, should testify on oath that the subject of inquest was labouring under one or other of the forms of mental disorder above referred to at the time of their examination; and, in addition, other witnesses (one or more besides relatives) should show that, for a period of at least six months immediately before this inquiry, he had been repeatedly dangerous to himself, or incapable of managing himself or his affairs.

Urgent cases might be sent to the institution on the medical certificates only, though the inquest should be carried out as before on their recovery from the immediate effects of the alcohol.

Cases of ephemeral mania and the special monomania might first be sent to ordinary asylums, and afterwards be transferred to the inebriate hospital on their recovery from insanity.

On second committals of the same person, the process should be simplified.

Such inquests would not be very frequent, as the great majority would enter voluntarily and stay sufficiently long rather than have themselves, their families, and their affairs exposed in a court of law. In American institutions, upwards of 90 per cent. are voluntary admissions.

OUR readers will have already learnt that the Duchess of Edinburgh was happily delivered of a son on Thursday last at 3.30 A.M. Dr. Arthur Farre and Dr. Wilson Fox are in attendance. Both mother and child are doing well.

WE are pleased to have been able to publish this week the interesting address on Bloodless Surgery by the veteran Esmarch of Kiel—a subject which he has made all his own.

IN a very interesting paper read at the Social Science Congress, Dr. Robertson resumed the question of the care of dipsomaniacs. We refer at length to his views in another column.

IT will be seen also that Dr. Russell of Birmingham has brought forward the subject at the Birmingham Branch Meeting. Mr. Garman, the President of the Branch, had dealt with it very ably in his presidential address; and, as the result of his paper, it was resolved to appoint a committee to consider what could be done to influence legislation in the matter.

THIS was the subject to which the late Dr. Dalrymple, M.P., had resolved to devote his life, and it had already made considerable progress in Parliamentary favour under his persevering advocacy. He has left considerable accumulations of information available for further prosecuting the reforms which are needed; and we believe that Mrs. Dalrymple could and would be desirous of giving assistance and information which would be valuable in forwarding the objects which her husband had at heart.

MEANTIME, we hear also that an inebriate hospital is in embryo in this country, and that Mr. Holthouse is interesting himself to get it started. The great want in managing such institutions is the compulsory power of detention. It would be desirable that the isolated workers at so many different centres should co-operate.

PREPARATIONS will, we believe, shortly be commenced for making the necessary local organisation in Edinburgh to insure the success of the meeting of the British Medical Association next year. This meeting is already much anticipated; and we hear it talked of earlier, and with more lively prospects of pleasure, than any meeting of the Association for many years past. We have numerous Scottish graduates among us who desire once more to greet their Alma Mater, and many more to whom an intended visit to Edinburgh is a source of lively and pleasant expectation. In Scotland itself, we believe, there is likely to be a very warm feeling of desire to greet with friendship the Southrons who will cross the border. The Dublin meeting of the Association was one which has left indelible impressions of gratification, and which did much to bind the English and Irish profession in bonds of personal amity. The Edinburgh meeting will, we expect, be a not less agreeable, and probably not less important, event, scientifically and socially. The report of the Edinburgh Committee of the Association has, for successive years, been one of the chief scientific features of our annual meetings.

THE SURGEONS OF THE NAVY.

THE list of surgeons of the Royal Navy "dismissed for refusing to serve" has received a further addition, and one in which a most undeserved and vengeful slight is put upon a young surgeon of excellent attainments and most amiable character. We have already given the particulars of the circumstances of Mr. Harrison's former letters of resignation, and of his being ultimately placed on half-pay. Now, it is perfectly understood, and always has been, that the officers of Her Majesty's services are volunteers, and not pressed men; and that they are not "listed" for a fixed servitude, but that they have always the right of retiring. With officers on half-pay, the case is yet stronger. There is no legal means whatever of compelling an officer retired from active service and put on the half-pay list either to take his half-pay or to return to active service. Mr. Harrison, on being placed on the half-pay list, wrote respectfully to the Admiralty declining to draw any pay, returning his commission, and insisting on his resignation. The Admiralty had no power whatever to compel Mr. Harrison to return to duty. Nevertheless, they determined to give him as much annoyance as possible—at least, that is the aspect which the matter is considered to bear; and accordingly, instead of yielding to his wish and granting him his undoubted right, they sent him an order which they knew was of no avail, which they knew he would not regard, and which they knew was not worth the paper on which it was written, inasmuch as it was one which they had no power to enforce—an order to join a ship on active service. They knew well that he would of course not join any ship, as he had returned his commission; but, having issued the order, they were thus enabled to fire a Parthian shot, and to gazette him as "being dismissed for refusing to serve", instead of as having resigned. There can be no question of the hardship and of the harshness of such a proceeding, any more than there can be of its want of dignity. We have no doubt, either, of its impolicy. The Navy is bare of surgeons; the extreme unpopularity of the service induces those who are in it to get out as fast as they can, and prevents promising recruits from coming forward, for any other prospect is better than that of a naval surgeon. In this extremity, the Admiralty choose to inflict undeserved annoyance and to affix an undeserved stigma on officers who, having been placed on half-pay, refuse to be forced back into a service which they detest. In the worst days of the Naval Medical Service, it has never been brought to this pitch of unpopularity and discredit. From the highest to the lowest in the service, there is one outcry of indignation and discontent. The position of the service is now daily growing worse, and the discontent and discredit of the service are still greater than when the recent representations were made to the First Lord by the deputation of the Parliamentary Bills Committee of the British Medical Association. The service journals are beginning—some of them tardily—to recognise the full extent of the evil; and the sooner Lord Gilford gives his award on the matters submitted to him in the written statement of Mr. Ernest Hart, which was forwarded by request, the better for all parties. It will take long now to restore the efficiency of the service by no matter what concessions; and it is certain that now even considerable concessions will be much less effectual than they would have been had they been accorded earlier and more graciously.

THE BURNING OF LADY DILKE'S BODY.

THE following interesting account of the cremation of the body of Lady Dilke is abridged from a paragraph in a German paper. On the evening of Friday, October 9th, the first burning of a human body in the oven built by Frederick Siemens in Dresden for that purpose took place. For nearly a fortnight, Lady Dilke's brother-in-law, and the executor of her will, had been in Dresden for the purpose of making arrangements for carrying out the direction which she had given in her will that her body should be burned as a "scientific experiment". The body was embalmed in London four weeks previously, and was transported to Dresden in a coffin surrounded with lead. After the removal of the leaden covering, the condition of the body was examined by the

State district physician, in the presence of the President of Police, State Councillor Flath, and others, including Dr. Roth, Dr. Küchenmeister, Dr. Spitzner, and Engineer Piper. Some minutes after the introduction of the body contained in its oak coffin, from which the lid had been removed, into the oven, a door was opened, through which the process of burning could be observed in detail. In six minutes, the coffin was observed to be bursting. At the end of ten minutes, the muscular parts were generally broken up; and in scarcely twenty minutes the skeleton was laid bare, and was itself beginning to undergo destruction. The charring of the internal soft parts was remarkably advanced in thirty minutes; and, at the end of an hour, the remains of the bones were greatly reduced. At the end of seventy-five minutes, the remaining ashes, weighing about six pounds, were collected and placed in an urn.

HYDROPHOBIA.

A SHORT time since, a young man named Henry Sivyer put up at the Rock, Cliffe, Lewes. He slept at an outhouse which had hitherto been occupied by a lurcher dog. Towards morning the dog broke loose, and proceeded to dispute possession of his old quarters with Sivyer. The dog eventually bit the man severely in the hand. The next day he bit another man, two dogs and a cat. Sivyer has lately died, after four days' illness. During the latter part of his illness, he refused all liquids. The other man who was bitten has as yet felt no bad effects.

THE LATE SMALL-POX EPIDEMIC AT NEWMARKET.

WE regret to read that the joint report of Dr. Airey and Mr. Courtenay Boyle, who were deputed by the Local Government Board to inquire into the treatment of the union workhouse patients during the epidemic at Newmarket, intimated that Dr. Mead, the officer of the union, had been negligent in the discharge of his duties. In consequence of a request made by the Local Government Board, Dr. Mead has resigned. The town is now quite free from the disease.

FEVER IN LONDON.

IN consequence of the great increase of fever cases, it has been decided to use the Homerton Small-pox Asylum for the convalescent fever patients. In consequence of the difficulty in procuring nurses for fever hospitals, it has been decided to raise the salaries from £20 to £30 *per annum.* Ths districts which appear to be suffering most are Hackney, Holborn, St. George's-in-the-East, and Marylebone.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of this Society was held on Friday, October 2nd, at the Royal Kent Dispensary, Greenwich Road; Dr. Moon, President, in the chair. The following gentlemen were elected officers of the Society for the session 1874-75. *President:* John Anderson, M.D. *Vice-Presidents:* J. P. Purvis, Esq.; Frederick Moon, M.B. *Council:* Hughes Cable, M.R.C.S.; Wm. Carr, M.D.; Thos. Creed, M.D.; Ralph Gooding, B.A., M.D.; Wm. Lockhart, F.R.C.S.; Charles Hind, M.R.C.S.; J. W. Walker, M.D. *Treasurer:* Prior Purvis, M.D.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

AT the first meeting of the above Branch for the present session, held on the 8th instant, Mr. T. H. Bartleet resigned his office as one of the honorary secretaries, having acted as secretary since December 1865. We feel that Mr. Bartleet's resignation should not be passed over in silence, seeing how greatly the Branch has prospered during his official connection with it. In 1865, the Birmingham and Midland Counties Branch numbered only 150 members; it now numbers over 320. The bare statement of the numerical increase, however, by no means expresses the growth of the Branch in usefulness and influence. From a small medical society holding a few medical meetings during the winter session, it has become a flourishing medical organisation, consisting of three active societies: the Branch itself, the Pathological and Clinical and the Microscopical Sections. At the gathering of these societies, all the important scientific and political work of the Birmingham and Midland district is now transacted; and we cannot too highly commend the organisation by which the Branch offers to its members so many advantages, and by which it has managed to connect the scientific interest of the district with the British Medical Association. In addition to this development of the Branch, Mr. Bartleet has been fortunate enough during his period of office to have assisted in the appointment and work of several Committees, of which we may specially allude to the Committee which considered and reported on the remuneration of the medical officers of sick-clubs. In the work of that Committee, the Branch initiated a movement of national importance. To very many of our readers, the memory of the annual meeting of 1872, when the Association accepted the invitation of the Birmingham Branch and met in Birmingham, will be still fresh. A considerable share of the success of that meeting was due to the energy and ability of Mr. Bartleet, and the pleasure of the meeting was in no small degree enhanced by his hospitality and kindly courtesy. At the meeting at which Mr. Bartleet's resignation was accepted, a very hearty vote of thanks was passed for his services, and a strong feeling was expressed that a vote of thanks could convey but very inadequately the debt which the Branch owes him. In this we most heartily concur; and we have called attention to his labours in connection with one of the Branches of the Association, because we feel that such work really deserves the thanks not only of the members in the Midland district, but of the Association. The same devotion and energy on the part of Branch Secretaries universally would do much in assisting to raise the Association to the position at which it aims, of representing the great majority of the medical practitioners in the United Kingdom.

A SURGEON COMMITTED FOR TRIAL.

MR. E. PEACOCK, surgeon, of Chilvers Coton, appeared before the magistrates at Nuneaton, on the 9th instant, to answer a charge of manslaughter; the prosecution having been undertaken by the Crown. The defendant attended a labourer's wife, named Ann Woodward, in her eleventh confinement. It is alleged that immediately after delivery, a portion of deceased's intestines protruded, and were severed by Mr. Peacock, who himself placed them in a chamber-utensil and deposited them in a privy at the rear of the house. He afterwards told a woman who was attending deceased that she would die, as there was nothing to save her life. Death ensued in less than two hours, deceased having previously said that the doctor had been the death of her. By direction of the Coroner, a *post mortem* examination of the body was made, when a rent was discovered at the upper and posterior part of the vagina, opening into the peritoneal cavity, sufficiently large to admit the hand. A considerable portion of both large and small intestines were also found to be missing, including a portion of the mesentery. At the inquest, the defence was that the poor woman's death resulted from spontaneous rupture of the vagina during confinement, and a verdict to that effect was returned, the jury expressing an opinion that no blame was attachable to the medical man. An application was afterwards made to the magistrates, on behalf of the husband of deceased, for a summons against Mr. Peacock, on the charge of manslaughter, and the summons was granted. The case came on for hearing at Atherstone, on Tuesday, July 28th; and, after a number of witnesses had been examined, the further hearing of the case was adjourned until October 9th, when the Bench, after the examination of several medical witnesses, committed the defendant for trial at the ensuing Warwick assizes, accepting bail in £500, and two sureties of £250 each.

THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION AND THE LATE DR. ANSTIE.

A MEETING of the Council of this Association was held on Thursday, October 8th, at 33, Dean Street, Soho; Dr. Rogers in the chair. The Chairman gave a long and interesting account of the public work of Dr. Anstie, and referred more especially to the valuable help he had afforded their Association, in the establishment of which he had assisted, and whose earlier public meetings he constantly attended; in conclusion, he submitted for their consideration a resolution that had been drawn up, which, on the motion of Mr. John Wickham Barnes, seconded by Mr. John Norton, was put to the meeting, and carried unanimously. It was as follows:

"That this Council desires to give the most earnest expression to its deep sense of the loss which the profession in general, and Poor-law medical officers in particular, have sustained in the untimely death of Dr. Anstie. The Association is deeply sensible of the valuable services which Dr. Anstie rendered in the field of Poor-law reform by his lucid and impressive exposure of the anomalies and deficiencies which, up to the period of the introduction of the Metropolitan Poor Act, 1867, prevailed in our workhouses and in our general medical relief system. This Act, whilst providing for the efficient treatment of the indigent sick poor, materially conduced to an improvement of the condition and status of many medical men holding Poor-law appointments under the Local Government Board in the metropolis, and the principles of which have likewise had so large a share in bringing about many beneficial changes in the provinces. The Council also desires to express its heartfelt sympathy with Mrs. Anstie in her great bereavement, and to assure her that the services of her late husband to the medical profession and to the cause of suffering humanity will leave an enduring impression on all with whom he was connected. The Council feel convinced that Poor-law medical officers generally will gladly contribute to the fund now being raised for the benefit of Dr. Anstie's family."

PENALTIES UNDER THE SANITARY ACT.

The Sheffield Bench have just made their sanitary powers felt in a way that deserves credit. The Ecclesfield Paper Mill Company were served with an order for the abatement of a nuisance caused by the dirty water of their mill fouling a stream. The order was served on August 12th; and, as the Company had not complied with the terms, a penalty of 10s. 6d. per day, with costs, was inflicted. It was stated that there had been eighteen deaths from fever in the immediate neighbourhood, and that the nuisance to the inhabitants was of a serious nature.

SANITARY OFFENCES.

Mr. Charles Smith, jun., the agent of some houses near Chesterfield, was recently summoned, at the instance of the sanitary authorities, for allowing the property to become a nuisance. The Medical Officer of Health, Dr. Mackintosh, stated that he visited the houses, in consequence of an outbreak of typhoid having occurred there. In the yard, thirty cases of fever occurred, in nine cases terminating fatally; and in the village and neighbourhood ten persons were stricken with the fever, three fatally; so that in all forty persons were smitten with this preventable disease, and, out of that number, twelve deaths occurred. He attributed this outbreak to: 1. Contamination of the atmosphere by sewage emanations. 2. Drinking sewage water from the canal. 3. Filthy, damp, and offensive yard. 4. Untrapped sink pipes and nearness of ashpits and privies to dwelling-houses. 5. Pigstyes too close to houses and badly kept. The means adopted to prevent the spreading of fever were that the houses were limewashed, and the whole place many times disinfected at considerable cost to the Rural Sanitary Authority. Isolation was strictly enforced, and other precautions recommended. Mr. Birch explained to the Bench that since the death of the landlord the property had fallen into a most dreadful condition.—The Bench thought that this was a most proper prosecution, and ordered that the nuisance should be abated within fourteen days.

EMIGRATION CERTIFICATES.

We publish in another column a correspondence which has passed between Mr. Symmons of Ledbury and the Agent-General of New Zealand. As the New Zealand Emigration Society is one which is established for the commercial benefit of that thriving colony, which desires to secure for itself able-bodied labourers, of sound health, free from any bodily or mental defect likely to interfere with their efficiency as labourers, and free from any infectious disorder, it is not clear why they should look to the medical profession to supply them gratuitously with the warranty which they require, as to the soundness of the material which they import. They would not expect to obtain a veterinary certificate on like terms; and only the well known readiness of the members of the medical profession to undertake work of all kinds gratuitously can have encouraged the practice against which Mr. Symmons protests. The argument of the Agent that the service rendered is to the emigrant, and not to the Society or the colony, is of course a transparent fallacy. It is of no service to the emigrant that he should be examined, and, it may be, rejected. It is a necessity which is imposed for the benefit of the Society and the colony. The case is one which runs on all fours with that of the Life Insurance Societies, which formerly put forward similar pretensions, but have in the end abandoned them, and now pay a fair fee for the certificates they require, and have in many ways found it to their advantage to do so. The case is even stronger against the agents to the colonies; for the intending assurers were, at least for the most part, persons who could afford to pay a reasonable fee; while intending emigrants, in a large proportion of cases, are persons unable, as the Society must very well know, to pay for the certificate which it demands.

SCARLET FEVER IN LIVERPOOL.

A severe outbreak of scarlet fever is said to have broken out at Liverpool. The authorities are taking active measures to repress it. On the 14th, two men were fined for having let houses which had contained fever patients without having had them disinfected.

THE ACTION OF LIQUIDS ON PEWTER VESSELS.

At a recent meeting of the Paris Academy of Sciences, M. Ferdos presented a note on the action of alimentary and medicinal liquids on pewter vessels. He had made numerous experiments on the subject with pewter vessels used in hospitals, and containing 10 per cent. of lead. Acidulated water containing one *gramme* of crystallised acetic acid was placed in the pewter vessels used in the surgery for making infusions. At the end of a few days, a slight white deposit was observed on the inside of the vessels, which was soluble in acidulated water, and presented the characteristics of solution of lead. This white deposit was in fact a salt of lead. If the internal surface of these vessels were wiped with moistened paper, the latter would be coloured yellow by solution of iodide of potassium. By experimenting on the same vessels with wine and vinegar, M. Ferdos ascertained that these two liquids soon dissolved the acetate of lead which formed on the walls of the vessels in contact with the wine and vinegar. Tartaric lemonade was examined after it had been placed in the above mentioned conditions for twenty-four hours, and the presence of lead in it could be detected.

WINTER RESORTS.

On this subject, the Italian correspondent of the *Times* writes as follows. The season is now approaching when invalids will be looking out for winter quarters, and, as any mistake in their choice might be fatal, I beg to say a word or two on the subject. Messina has been recommended as a good place of resort. My experience, however, would lead me to describe it as a huge funnel through which the winds blow up and down impetuously, and as a place to be avoided by an invalid. Catania, undoubtedly, possesses the best climate in Sicily; it is a very pretty, clean town, and, unless matters be greatly changed, fair hotel accommodation is to be found there. It remains to be seen, however, whether Sicily will be an agreeable residence during the next winter. The Government is exerting itself to introduce something like order, but it has great evils to contend with which will require a long time to remove. Sicily, however, from its distance must always be to the Englishman a place of exile, and there is no necessity for his seeking so far south what he can easily find very near Naples. Some parts of Pozzuoli were much resorted to by invalids in the time of the Romans, and the Island of Capri has for some years been the winter residence of many whose lungs are weak. The variation of temperature between day and night is slight, and much less than it is on the Riviera on the coast of Genoa, and the accommodation is very fair. No one, however, should leave England with the expectation of finding a perpetual summer—there is not a nook in Italy which has not its occasional storms, and bad, wet, and cold days—but one has the certain assurance of enjoying bright skies and a warm sun after these short and rare intervals. No one, again, should leave England who is in an advanced state of illness. He will not find, I believe, anywhere else those comforts so essential to his state; and far better will it be for him to spend his last days in his own country, amid his own friends, than come out and find his hopes have been delusions. The Italians, too, have a great dread of diseases of the chest, and it often happens that their timidity is the cause of a want of sympathy bordering almost on cruelty. As to Sicily, I must express even stronger doubts than I have yet done as to its being a desirable residence during this winter; for, though the great evil of brigandage is confined principally to the province of Palermo, and so round by the west to Girgenti in the south, still an uncomfortable feeling prevails everywhere extremely prejudicial to the health of weakly and nervous persons.

INFLUENCE OF HIGHER EDUCATION ON THE HEALTH OF GIRLS.

THE statistics of the American Bureau of Education show that there are forty-six colleges and high schools open to students of both sexes. In the University of Michigan, which is organised in three departments—that of literature, science, and arts; medicine and surgery; and the department of law—four women have graduated in the first, four in the second, and twenty-one in the third during the last four years, the whole number of female students regularly matriculated in the University being ninety-three. In Oberlin, which was from the first open to students of both sexes, no fewer than six hundred and twenty women have graduated since the foundation, the number of men in the same period being 1,005. The Mount Holyoke Female Seminary was opened in 1837. It receives no pupils under sixteen, and admits none under eighteen to the senior class; and the number of graduates in thirty-six years has reached 1,455. Vassar College was founded expressly for women in 1865, and has three hundred and fifty students. From all these and from other institutions statistics have been drawn, intended to show that the health of the girls compares very favourably with that of the young men in similar circumstances, and that the rate of mortality, so far as it can be estimated from inquiries into the subsequent career of the students, is somewhat lower in the case of the women than in that of the men. Of the male graduates of Antioch, for example, it is asserted that thirteen and a half per cent. died, while of the women graduates only nine and three quarters have died. Of the female graduates it appears that three-fourths have since married, and four-fifths of these were, two years ago, mothers. Only one half of the remaining fourth are graduates of longer standing than 1871.

SCOTLAND.

DR. WILLIAM STIRLING has been appointed assistant to the newly elected Professor of Physiology in the University of Edinburgh.

OPENING OF THE MEDICAL SESSION IN GLASGOW.

THE Medical Session in Glasgow University will be opened on Tuesday the 27th current, when Dr. P. A. Simpson will give the Introductory Address. The session will be inaugurated in the Andersonian University, by an Address from Dr. Dunlop.

UNIVERSITY OF EDINBURGH.

AT a meeting of the University Court, on October 12th, an order of Her Majesty in Council was laid before the court, permitting Dr. J. Hughes Bennett to retire, on a retiring allowance, from the Professorship of Institutes of Medicine. Dr. William Robertson's resignation of the office of Examiner in Medicine was submitted. Dr. William M'Intosh of Murthly was appointed Examiner in Medicine, under the existing regulations, from the date of Dr. Robertson's resignation till the end of the present year. The Professors of Chemistry, Natural Philosophy, and Medical Jurisprudence, and the non-professorial Examiner in Natural Philosophy were selected to act as examiners at the examinations for degrees in science in the Department of Public Health, to be held during the present month. The appointment of Mr. James A. Russell, M.B., as assistant to the Professor of Anatomy, was approved. Dr. James Dunlop, Lecturer on Surgery, Glasgow, and Dr. A. M. Buchanan, Lecturer on Anatomy, Glasgow, were recognised as lecturers, whose lectures should qualify for graduation in medicine in the University of Edinburgh. The preparation of regulations under which appointments to the non-professorial examinerships in medicine under the system to come into effect on January 1st next, was remitted to a committee.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

AT a meeting of this Corporation, held on the 5th instant, the following office-bearers were elected for the ensuing year, viz.:—*President:* Andrew Fergus, M.D. *Visitor:* James Morton, M.D. *Treasurer:* John Coats, M.D. *Honorary Librarian:* J. D. Maclaren, M.D. *Vaccinator:* Hugh Thomson, M.D. *Councillors:* The President, *ex-officio;* The Visitor, *ex-officio;* The Treasurer, *ex-officio;* J. G. Fleming, M.D.; George Miller, M.D.; George Buchanan, M.D.; William Leishman, M.D.; Henry Muirhead, M.D. *Board of Examiners:* James Morton, M.D. (Surgery and Surgical Anatomy); Robert Perry, M.D. (Chemistry); P. A. Simpson, M.D. (Midwifery and Medical Jurisprudence); T. McCall Anderson, M.D. (Medicine and Materia Medica); Alexander Lindsay, M.D. (Chemistry); George Buchanan, M.D. (Anatomy and Physiology); R. Scott Orr, M.D. (Medicine and Materia Medica); J. G. Wilson, M.D. (Midwifery and Medical Jurisprudence); Donald Dewar, M.D. (Surgery and Surgical Anatomy); Eben Watson, M.D. (Anatomy and Physiology). *Examiners in Arts:* James B. Russell, M.D.; John Pirrie, M.D.

UNIVERSITY OF ABERDEEN.

AT a meeting of the Aberdeen University Court, on September 29th, Professor Huxley, Lord-Rector, in the chair, the following appointments of examiners in medicine were made for one year: Robert Beveridge, M.B., Alex. Ogston, M.D., and Jas. W. F. Smith-Shand, M.D. The Court approved of the following appointments made by the Professors of Assistants for 1874-5, viz.:—Chemistry, Patrick B. Smith, M.B.; Anatomy, Alexander Craigmyle, A.M., M.B.; Materia Medica, Alexander Dyce Davidson, A.M., M.D.; Medical Jurisprudence, Francis Ogston, jun., M.B. A report from the Senatus Academicus, recommending certain alterations in the medical examinations, was read. The Lord Rector moved that the report be received, and the suggestions of the Senatus, with the exception of the omission of the examination in elementary anatomy, approved of, and that a committee be appointed to prepare a report, the form of the alterations to be submitted to the Chancellor for his consent, and thereafter laid before Her Majesty's Privy Council for approval. The motion was unanimously agreed to. A report was read from the Senatus, stating that that body had set aside a sum of £1,100 for the enlargement of the library.

IRELAND.

THE deaths registered in Dublin last week amounted to ten more than the number of births registered during the same period.

SCARLATINA.

LAST week, in Dublin, there was an increase of the mortality from this disease, twenty-six patients having succumbed, being an increase of eight over that of the preceding week. In Belfast, twenty deaths took place during the same period. In Londonderry the epidemic of scarlatina which prevailed extensively there is decreasing in virulence, but the mortality has been very serious, several families having each lost three or four children.

PUBLIC HEALTH ACT.

At a late meeting of the Tipperary Medical Protective Association the following resolution was adopted by that body: "That at this, our first meeting since the passing of the Bill, we feel pleased at expressing our strong feeling of satisfaction at the Public Health Act having become law, and from our knowledge of the want of such legislation, and from the arduous duties which we will have to perform, we beg to urge on the respective boards of guardians the absolute necessity of giving adequate remuneration for these services; and we beg to express our conviction that, so far from being a large increase in the rates, that, if properly worked, it will ultimately be the means of reducing them in many ways, especially by preventing the recurrence of outbreaks of disease, and thereby lessening both indoor and outdoor relief."

KINGSTOWN TOWNSHIP.

At a late meeting of the Commissioners of Kingstown, it was resolved that application should be made to the Local Government Board for a provisional order, to be subsequently confirmed by Parliament, for authorising the construction of intercepting and outfall sewers, and such works as may be necessary for the disposal of the sewage; also for the erection and control of slaughterhouses, abbatoirs, and such other appliances as may be necessary for the improvement of the township. These matters have been subjects of debate for the past few years, and it is to be desired that they will be speedily carried out, as the sanitary condition of Kingstown has been most discreditable for some time past.

NORTH DUBLIN UNION RURAL SANITARY APPOINTMENTS.

A meeting of the guardians of this union was held on Monday last, to fill up the various appointments under the Public Health Act; and, in order to guide them in fixing the remuneration for the sanitary officers, a communication was read from the Local Government Board, who stated that they intended to submit for the approval of the Lords of the Treasury, that the addition to the salary of the executive sanitary officer should not exceed one-fourth of the existing salary of the officer appointed, and that the salary of the consulting sanitary officer should not exceed one-third of his present salary. The various dispensary medical officers of the union were appointed sanitary officers, their salary being increased by £20 yearly, with one exception, whilst the executive sanitary officer and the consulting sanitary officer, will not be appointed until next week, the salaries being fixed at £50 and £20 *per annum* respectively.

SALARIES OF IRISH MEDICAL SANITARY OFFICERS.

Great disappointment has arisen in consequence of a circular issued by the Irish Local Government Board to the sanitary authorities constituted under the new Act. The circular states that "the Local Government Board had resolved to recommend to the Treasury that the maximum increase sanctioned should be: To executive medical sanitary officers (that is, dispensary medical officers), one-fourth their present salaries; to consulting medical sanitary officers, one-third of their present salaries; and to subsanitary officers, one-fourth of their present salaries; these increases to be the maximum, and *the local authorities to have the power of fixing them at any lower sum they thought proper*". Are the Irish Commissioners in earnest? There can be no doubt this is the wording of the circular, which is exactly contrary to the Act of Parliament, which provides that the salaries shall be fixed by the local authorities, "with the approval of the Local Government Board"; while the Board fixes the salaries, with the approval of the local authorities. Owing either to the weakness or ignorance of the Local Government Board, the Public Health Act is likely to be brought into contempt throughout the length and breadth of the land. The medical officers are to have average salaries of £25 *per annum* for superintending average populations of 7000 living in 1500 houses scattered over an average area of fifty square miles. Does the Irish Local Government Board expect to get more than £25 worth out of those gentlemen who are bound by Act of Parliament to serve the State? Surely, if one thousand medical men are compelled by Parliament to undertake the onerous duties of superintending the public health of Ireland, it is the duty of Parliament to see that the public servants are properly paid. We warn the Irish Local Government Board that good work cannot be had without good pay; and that this parsimony concerning the salaries to be paid under the Public Health (Ireland) Act will ruin the working of the measure, and lead to an agitation which will tend to injure the Irish Poor-law medical service. The previous history of the Irish Local Government Board administration led us to expect better things; but we are afraid that education under old-fashioned Poor-law administration warps the official mind so effectually as to make it incapable of proper public health administration.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

The Introductory Address was delivered on October 5th, by Mr. T. Shadford Walker, Lecturer on Ophthalmic Medicine.

Medicine, like the industrial arts, owed more to the men of pure science than to the so-called practical men. These latter played an extremely useful though secondary part, and it was to the labours of the former that medicine owed its distinction. After briefly surveying, as an illustration, the condition of ophthalmic surgery twenty-five years ago and the unexampled strides it had since made, due entirely to purely scientific discoveries based on theory and not upon experience, which was the guide of practical men, the speaker remarked that, to enable similar valuable discoveries to be made, the men engaged in medical scientific studies must be freed from the cares and anxieties of private practice, or they cannot afford sufficient time and thought for the pursuit. When the British Association met in Liverpool in 1870, a distinguished German Professor spoke to him on this very subject. "I am surprised", said Professor Stricker of Vienna, "to see your ablest scientific men obliged to rely on their own private resources in carrying out their experiments to purchase the necessary instruments, etc., and, just when they are deeply engaged in a complicated series of experiments, the thread of their thoughts is broken by the call to the sick-bed of a patient—it may be miles away. That they are able to do such good work with such poor means, and amid constant interruptions, only shows what might be expected from them if they were situated as we German professors are. To that position, enabling us to work leisurely and without the anxiety and distraction consequent upon the necessity of engaging in private practice, we are indebted for the scientific eminence we have attained. You Englishmen have only to adopt the same course to reap the same harvest. We are paid by the State; are supplied with whatever instruments we deem necessary for investigations by the community. In return, we are expected to do some good and useful scientific work every year." He could not do other than acknowledge the truth of the statement, and at the same time ask himself what hindrance stood in the way of the adoption of a similar plan in England. He believed the principal reason why it has not hitherto been followed here was, that, whilst the great mercantile communities owed their pre-eminence entirely to the practical applications of pure science, the claims of theoretical science as the parent of applied science had never been fairly and firmly pressed upon their notice. He felt sure that, just as in Liverpool the merchants and other business men came forward with open hands to contribute towards the erection of the school buildings, so they would not allow the Liverpool School of Scientific Medicine to occupy a worse condition than the neighbouring one of Manchester or of Newcastle-on-Tyne, endowed by the wise and far-sighted liberality of individual or collegiate donors. He appealed to the benevolence—if need be, to the enlightened selfishness—of the wealthy to follow the example set by Miss Brackenbury in Manchester, who bequeathed very lately £10,000 for the endowment of the medical school there, now connected with Owens College. Surely the appeal would not be made in vain. Money could scarcely be better bestowed than in endowing a school whose main object would be the removal of the stigma of unhealthiness from Liverpool. The medical profession, by its gratuitous labours on behalf of the poorer classes for many years, had some claim on the generosity of the wealthier classes of the town—a claim recognised in the donations to the new school buildings, but which could not be better or more fully liquidated than by the endowment of the most important chairs, and the conversion of the school into a medical college which would do honour to Liverpool, maintain its equality with its rivals, near or remote, and confer lasting sanitary benefits, not only on the poorer classes of the town, but also upon the entire community who suffered from the extension of epidemic disease from below, as long as ignorance, the parent of evil, was allowed to remain unattacked.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

M. Demarquay on Lister's Method.—M. Fauvel on Cholera.—M. Dumontpallier on Nerve-Injuries from Pistol-Wound.—M. Duplay on a Foreign Body in the Œsophagus.

DR. DEMARQUAY, after having given Professor Lister's mode of dressing wounds and ulcers a fair trial at the Maison Municipale de Santé, lately read a paper before the Academy of Sciences, containing the results of his observations. He said that, however successful the Scotch surgeon might have been with this method, he himself could not say that it possessed any particular advantages over the other methods in ordinary use; that, on the contrary, it had a great many drawbacks, which he summed up as follows. The atmosphere surrounding the patient is impregnated with carbolic acid, which is disagreeable to the surgeon and to his assistants; moreover, the hand of the operator is numbed and becomes the seat of a pricking sensation, which sometimes lasts more than twenty-four hours. The spray which is directed constantly on the wound favours hæmorrhage, and it is difficult to estimate the quantity of blood thus lost; besides which, it is more difficult to stop the bleeding. Dr. Demarquay made his observations on eight cases on which he had operated; viz., four of tumour of the breast complicated with enlargement of the axillary glands, two of castration, one case in which a chondromatous tumour of considerable size was removed from the right parotid region, and, lastly, a case of removal of a fibro-plastic tumour from the abdominal parietes. Among these eight patients, four were the subjects of venous hæmorrhage on the day of the operation, one of arterial hæmorrhage (secondary) on the eighth day, and another was affected with purulent infection, which terminated fatally. Dr. Demarquay remarks that no accidents occurred in any of the cases operated on about the same time and in the ordinary way, and the following are the results of his observations on the eight cases referred to above. 1. The wounds were languid-looking, atonic, pale, indolent; which, however, did not prevent cicatrisation. 2. The pus, which flowed in large quantity, was of serous character, and contained only a few pus-globules. 3. The carbolic acid seemed to render the blood more diffluent, prevented its coagulation, and thus favoured primary hæmorrhages at the surface of the wounds. Dr. Demarquay next inquires into the effects of Lister's method upon the vibriones. The pus escaping from the wounds was carefully examined each day or every second day by the microscope, and these microzoa were constantly found in it. These, he added, were not peculiar to this mode of dressing, but they were found in all the other plans employed, such as alcohol, tincture of eucalyptus, glycerine, etc.; but, notwithstanding this, the wounds in all the cases healed, except one, which proved fatal from purulent infection. From these inquiries, Dr. Demarquay concludes that the different modes of dressing employed in the hospitals do not prevent the development of germs, and that the presence of a certain number of protozoa in the wounds, kept very clean, does not interfere with cicatrisation.

The summer vacation is coming to a close, as may be noticed by the return of the students to the "Quartier Latin", and by the reappearance at the different societies of members that have been absent. The Surgical and Anatomical Societies have already begun their work, and the Academy of Medicine, which, for more than a month, has been almost empty, is fast refilling. There was a goodly number present at the last meeting; and M. Fauvel, who represented France at the International Congress lately held at Vienna, read a paper on the Etiology of Cholera, and an inquiry as to whether the doctrines expressed by the Conference held at Constantinople in 1866 responded to the exigencies of the case, and on the international measures that were to be taken to prevent the spread of the disease. These subjects were freely discussed at the Vienna Congress, without adding anything new to the conclusions of the Conference at Constantinople, which were to the effect that the disease is of Asiatic origin; that it is endemic in India; that, wherever else it has been observed, it has been imported, and that its spontaneous development in Europe has never been proved. M. Fauvel did not then finish his communication, and intends to continue the subject.

At the Biological Society, a very interesting case was communicated by M. Dumontpallier of a man, aged 33, who was wounded by a pistol-shot in a duel about five years ago, since which he had complained of sharp pains along the back of the right lower limb. This was accompanied by anæsthesia of the right leg and by paralysis of the muscles of the left leg. From these symptoms, M. Dumontpallier concludes that there was an unilateral lesion of the spinal marrow caused by the bullet with which he was wounded in the duel. The correctness of the diagnosis was questioned by some of the other members, but supported by M. Charcot, a well known authority on affections of the brain and nervous system.

At the Surgical Society, M. Duplay communicated the case of a man, aged 62, who had been a patient in the Hôpital St. Antoine. He stated that, the day before his admission into hospital on September 25th, the man had swallowed a small piece of bone with his soup, which was evidently stopped in its passage in the œsophagus, as he complained of severe though ill defined pains behind the sternum. The house-surgeon introduced a probang, which was stopped by an obstacle about nineteen *centimètres* (about seven inches and a half), measuring from the middle incisors of the upper jaw; but, with a little manœuvring of the instrument, he passed the obstacle, and was in hopes that, in withdrawing the probang, the obstacle would be removed. In this, however, he was disappointed, and M. Duplay then introduced on the following day the tube of a stomach-pump, but not with more success than his assistant; the instrument passed the obstacle, but brought nothing with it on being withdrawn. M. Duplay then introduced another tube with an olive-shaped extremity, which passed easily into the stomach; the patient could swallow easily both solids and liquids, but the obstacle was still in the gullet, as he continued to feel the pain complained of at the commencement. M. Duplay, however, was disposed to believe that the bone had been removed by an emetic the patient had taken the day previous to his admission. On September 28th, symptoms of dysphagia set in, which was attributed to spasmodic contraction of the œsophagus, and, on the 30th, the patient died with symptoms of broncho-pneumonia complicated with pleuritis. At the necropsy, these symptoms were verified by the lesions found in the lungs, which were also highly congested. At five *centimètres* (two inches) from the superior extremity of the œsophagus, a fragment of bone of a triangular shape was found lodged in it: it had perforated the organ at a level with the fourth dorsal vertebra and almost in immediate contact with the arch of the aorta, from which it was separated by only one *centimètre* of cellular tissue. This interesting case gave rise to a warm discussion as to the proper measures that should have been employed, and it was decided that œsophagotomy offered the only chance of saving the man's life. M. Trélat, however, was of opinion that, before resorting to such a serious operation, especially in the absence of rational and physical signs, explorations ought to be made with a sound of sufficient calibre to completely fill the œsophagus, as with a smaller instrument one is likely to pass over the obstacle, as in the case under notice. Moreover, a stouter instrument would be useful in overcoming the spasmodic contractions of the œsophagus caused by the presence of the foreign body, which, under such circumstances, is generally found imprisoned in the organ, which, sooner or later, becomes ulcerated or perforated. It is, therefore, of the utmost importance that a proper diagnosis be made as early as possible, in order that decisive measures, as œsophagotomy, may be resorted to at once, after having given all other means a fair trial.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

Opening of the Session at Queen's College.—Introductory Clinical Lecture.—Dinner to Dr. Fletcher.—The Midland Medical Society.—Resignation of Mr. Bracey at the Children's Hospital.—Public Health in Birmingham.

THE work of the medical year has been commenced here with vigour in every direction. There was a good attendance of the profession and of the public at the introductory lecture of the Queen's College session. It was given by Dr. Alfred Hill, who naturally chose hygiene and chemistry as his text. Friends of the College were glad to see again in office the Rev. W. H. Poulton, who has recently been appointed warden, and who was received with enthusiasm. There is a very good entry of students this year, and lectures and dissections have begun early and in earnest.

The lecture introductory to the Clinical Session of the United Hospitals was given a few days later at the Queen's Hospital, by Mr. Wilders. It was full of sound practical advice to students, especially pointing out the advantages here within their reach. It was quite appreciated, and received a hearty vote of thanks, proposed by Dr. Bell Fletcher, and seconded by Mr. West. Clinical prizes were distributed afterwards to successful students as follows:—*Senior Clinical Medicine:* 1, Mr. A. B. Vanes; 2, Mr. T. Johnson; 3, Mr. H. Maberley and Mr. J. O'Dowd (equal). *Junior Clinical Medicine:* Prize, Mr. J. H. Palmer. *Senior Clinical Surgery:* 1, Mr. T. Johnson; 2, Mr. J. H. Palmer. *Junior Clinical Surgery:* 1, Mr. Brett; 2, Mr. Spofforth.

Clinical Midwifery: Prize, Mr. T. Johnson. On the motion of Mr. C. B. Cooper, seconded by Mr. Gamgee, a vote of thanks was passed to the Chairman, and the proceedings terminated.

On the following day, Dr. Fletcher, who has acted as Chairman of the Clinical Board for the last twelve months, and has recently been re-elected, was entertained at a dinner by the members of the united staffs as a cordial and friendly recognition of his services in the chair.

At the annual meeting of the Midland Medical Society, Mr. Wilders retired from the Presidentship, receiving many acknowledgments of his services; and Mr. Pemberton has accepted the honourable office for the coming year. Mr. Priestley Smith has been elected Librarian; and Mr. Harmar remains Treasurer. Professor Humphry has honoured the Society by consenting to deliver the address at the annual *soirée*, which will be held on the 21st instant. The subject of the address will be, we understand, Early British Skulls.

The Children's Hospital has lost a valuable and valued honorary surgeon by the resignation of Mr. Charles Bracey. Dr. Thomas and Mr. Mann are candidates for the vacant office.

With regard to matters of Public Health, the epidemics of scarlatina and variola are still prevalent. Of the former, the majority of cases are mild, but of the latter many are severe. The new cases had gone down to 66 last week; but this, they have risen again to 82; weekly mortality, 10, being 12.20 of total cases. The only small-pox wards available up to the present have been connected with the workhouse, but they have now at last been purchased and taken charge of by the Corporation as the sanitary authority. Bearing upon this matter, is a case recently decided at Banbury, where a Revising Barrister struck off his list the name of a man who had been treated in the Small-pox Hospital of the Board of Health. It appeared that he had consented, on urgent request, to his own removal, and had been attended then by "his own doctor". For this reason, he was considered "not a pauper", and allowed as a voter. Dr. Buchanan has recommended in his report a Hospital for Infectious Diseases at each end of the borough boundary, but no steps have at present been taken towards fresh buildings. At Harborne, a hospital has been extemporised out of railway postal carriages.

The charge against a Nuneaton surgeon of causing the death of a woman during confinement, came again before the magistrates yesterday, having been adjourned from July last. The defendant was committed for trial at the next Warwick assizes, heavy bail being required and accepted.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Opening of the New Western Infirmary.—Dispute between the Managers of the Old Infirmary and the New.—Recognition of Lectures.

THE New Western Infirmary will be opened for the reception of patients on October 29th, and clinical instruction during the ensuing session will be given there. It must be acknowledged that the opening is too near the beginning of the session, and some inconvenience will necessarily result. It would have been better if the wards could have been opened in the month of August, as was originally intended, and then the general arrangements would have been advanced before the students began to attend. This has been found impossible, however, and students and teachers must accommodate themselves to the inevitable inconveniences incident to the period of transition. We believe it was expected that the connection with the Royal Infirmary would have been continued during this winter, and that the new hospital would have been left for six months to develope its internal arrangements. Some disagreement has, however, arisen between the old infirmary and the new, the outcome of which was, that the professors in the university acting in the old infirmary were threatened with non-election. Under these circumstances, it was necessary for the university to go on with the new hospital, which is all but finished.

It must seem strange that a body of directors in the infirmary should threaten the dismissal of such men as Dr. Gairdner, Dr. George Buchanan, Dr. McLeod, and Dr. McCall Anderson, who have for many years been actively engaged in the hospital. And it will be counted all the more strange when it is considered that no official communication has (if our information be correct) passed between the university and the infirmary on the matter in dispute. The infirmary directors say that the university does not intend to recognise their courses of clinical lectures after the new infirmary has been put into working order, and, on this footing, they dismiss the university professors. But the university has never refused to recognise their lectures, and the infirmary has never asked whether they intend to refuse recognition. It seems to be a pure assumption on the part of the infirmary directors, and, on the basis of this assumption, they will dismiss old and tried officers. The dispute is unfortunate; but, if it lead to the ventilation of the whole question of recognition of lectures in Glasgow, it cannot but do good. This question has only an indirect bearing on the present disagreement. But, if at some early date the Andersonian University agree to give up its misleading name, or, as was suggested some time ago in our pages, if the medical staff would agree to leave Anderson's Institution and form a Royal Infirmary School of Medicine, then the university would be forced to recognise the classes, and that healthy competition would be inaugurated, which is so great a desideratum in Glasgow. We are glad to find that one of the daily newspapers of Glasgow has taken up the question and speaks plainly out. In our opinion, an infirmary school of medicine would be a much more efficient thing than one connected with an institution which has no direct connection with medicine; but, if Anderson's University should get a short Act of Parliament passed, ridding them of this anomalous title, there seems no reason to doubt that Glasgow University would willingly recognise their classes, or at least would recognise the lecturers as individuals.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Wednesday, the 4th day of November next, at a quarter past 3 o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, October 8th, 1874.

YORKSHIRE BRANCH.

THE autumnal meeting of this Branch will be held at the Royal Hotel, Scarborough, on Wednesday, October 21st.

The members will dine together after the meeting. Tickets, 6s. 6d. each.

Any member intending to dine, or bring forward any communication, is requested to communicate with the Secretary.

W. PROCTER, M.D., *Local Secretary.*

York, October 12th, 1874.

BATH AND BRISTOL BRANCH.

THE first ordinary meeting of the session will be held at the College Green Hotel, Bristol, on Thursday, October 22nd; FREDERICK MASON, Esq., President, in the Chair.

EDMUND C. BOARD, *Honorary Secretary.*

Clifton, October 1874.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING will be held at the White Hart Hotel, Reigate, on Thursday, October 22nd, at 4.30 P.M.; CONSTANTINE HOLMAN, M.D., in the Chair.

Papers will be read by Dr. G. W. Grabham (Earlswood), Remarks on the Origin, Varieties, and Termination of Idiocy; by Dr. P. H. Pye-Smith, on some cases of Abdominal Tumour; by Dr. C. Holman; by Dr. J. Walters, on a case of large Naso-Pharyngeal Polypus successfully removed, on a case of Poisoning by Arsenic, and on a case of Poisoning by Hydrocyanic Acid.

The Chairman kindly invites members and their friends to lunch at 1.30 P.M., at "The Barons", Reigate.

Dinner will be served at the White Hart Hotel, at 6.15 P.M. Tickets, including wine, 14s. After dinner, the presentation of the testimonial to Dr. Lanchester will take place.

JOHN H. GALTON, M.D., *Honorary Secretary.*

Woodside, Anerley Road, S.E., September 30th, 1874.

BORDER COUNTIES BRANCH.

A MEETING of the above Branch will be held at Dumfries on Friday, October 30th, under the Presidency of Dr. GREEN of Kendal.

Gentlemen intending to read papers or take part in the proceedings are requested to give early notice to the Secretary of their intention.

HENRY BARNES, M.D., *Honorary Secretary.*

Carlisle, October 14th, 1874.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

A SPECIAL meeting of the Branch will be held in the Council Room of the Midland Institute, on Thursday, October 22nd, 1874; the Chair to be taken at half-past three o'clock P.M. precisely.

Business.—Further Consideration of the Report of the Committee on Medical Education.

BALTHAZAR FOSTER, M.D., } *Honorary Secretaries.*
JAMES SAWYER, M.D., }

Birmingham, October 13th, 1874.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEETING.

THE autumn meeting of the above District will be held at the Board Room of the Infirmary, Chichester, on Tuesday, October 27th, at 3 P.M.; Dr. TYACKE in the Chair.

The dinner will take place at the Dolphin Hotel, at 4.45 P.M. precisely. Charge 5s., exclusive of wine.

WM. J. HARRIS, *Honorary Secretary.*

Worthing, October 10th, 1874.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 29th, at 5 o'clock.

The following question has been settled by the Council as the one on which each member should be asked to express his opinion at the meeting after dinner: "What is your opinion as to the best treatment of whooping-cough?"

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, September 29th, 1874.

READING BRANCH: ANNUAL MEETING.

THE nineteenth annual meeting of the Reading Branch was held in the Athenæum, on Wednesday, September 23rd. Seventeen members were present.

President's Address.—Mr. MAURICE, President, delivered a very able address, for which he received the thanks of the members present.

President-elect.—Mr. May was nominated as President-elect.

Dinner.—The members subsequently dined, and spent a very agreeable evening at the Queen's Hotel.

SOUTH MIDLAND BRANCH: AUTUMNAL MEETING.

THE eighteenth autumnal meeting of this Branch was held at Tickford Lodge, Newport Pagnell, the residence of Hammett Hailey, Esq., on Tuesday, October 6th. Mr. Hailey entertained the members at luncheon previously to the meeting. The chair was taken at 2.30 P.M. Present: ROBERT DE'ATH, Esq., President, and ten other gentlemen.

Cases.—Mr. HAILEY read a short paper on a singular case of Gunshot Wound of the Forearm. The case terminated favourably, and the success was attributed to constant irrigation. The man was exhibited; he suffered from contraction of the flexor tendons.

Dr. MACKAY related a case of Gunshot Wound of the Elbow. Two years after the accident, a piece of the stock of the gun was discharged through a fistulous opening. The wound then soon healed.

Dr. LAWFORD related a case of Gunshot Wound, in which wadding was taken out of the wound some months after the accident.

Votes of Thanks.—Mr. TERRY proposed a vote of thanks to Mr. Hailey for his kind hospitality, which was seconded by Mr. MOXON, and carried.

Mr. HEYGATE proposed a vote of thanks to the President. This was seconded by Mr. GRINDON, and carried.

The meeting then separated.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETING.

THE fifty-third meeting was held at the "Granville", Ramsgate, on September 24th, J. B. THOMSON, Esq., in the Chair. Fifteen members and their friends were present. The admirable baths attached to the "Granville" were examined and thoroughly approved of and admired.

Papers, etc.—1. Mr. HICKS read a paper on Manual and Instrumental Interference in Labour. He thought that the old doctrine that "meddlesome midwifery is bad" might be carried too far. He preferred the long forceps to any other instrument. If the expulsion of the placenta were delayed, he advised its early removal, seeing no harm in the introduction of the hand into the uterus, if it were done slowly and gently. Out of 605 cases of midwifery, he had had 27 cases of forceps, with no maternal death.

2. Mr. TEEVAN made some remarks on the Treatment of Retention of Urine. He spoke most highly of the use of ice *per rectum* in those cases due to stricture or gonorrhœa, though it was of little use when the cause was an enlarged prostate. He recommended aspiration above the pubes in preference to puncture *per rectum*. He also exhibited and explained the use of many ingenious and useful elastic instruments for the relief of retention and other urinary disorders.

3. Mr. WOODMAN narrated a case, which, for want of a more definite name, was described as a fatal case of Spontaneous Hæmorrhage, in which a healthy little girl died within forty-eight hours, with no other symptom during life than slight hæmaturia and a general yellow colour of skin. At a *post mortem* examination, all the abdominal viscera were found intensely congested; the other organs were healthy.

4. Mr. RAVEN related two instances of Aphasia occurring after Enteric Fever, and made references to various authors with regard to the affection. It was shown that aphasia never occurs without serious premonitory symptoms, indicating some profound impression on the nervous system; and further that, in all recorded cases, albuminuria had been a prominent symptom in the progress of the fever. Hence it was inferred that the condition of aphasia, and the seizure preceding it, were the result of uræmic poisoning. The importance of regular chemical examination of the urine in continued fever was insisted on; and, in cases where albuminuria is present, it was shown that a most careful watch should be kept over the patient, especially about the termination of the third week, and if the disease had occurred in a young person. The prognosis of this form of aphasia was shown to be quite favourable.

NORTHERN COUNTIES (SCOTLAND) BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the Caledonian Hotel, Inverness, on Saturday, September 12th; present, Dr. Ross, of Inverness, President-elect, and fifteen members. Professor Liston Paul, M.D., of Madras, and Dr. Brotherston of Alloa, being present by invitation, were requested to consider themselves members for the day. The Secretary apologised for the unavoidable absence of Dr. Duff, the President; and Dr. Ross, President-elect, took the chair, and delivered an address, which was followed by an interesting discussion.

Communications.—1. Dr. J. W. N. MACKAY (Secretary) showed a number of Calculi, vesical and renal, and read a description of, and comments upon, them, by Dr. Robert S. Turner of Keith, who was prevented from being present. 2. Dr. Vass showed and commented upon several Renal Calculi.

Report of Council.—The Secretary gave in the report of the Council, which was adopted.

Officers and Council.—The following office-bearers were elected for 1874-75. *President:* J. J. Ross, M.D., Inverness. *President-elect:* J. Vass, M.D., Tain. *Vice-Presidents:* J. Wilson, M.D., Inverness; G. Duff, M.D., Elgin. *Secretary and Treasurer:* J. W. N. Mackay, M.D., Elgin. *Members of Council:* Drs. T. Aitken, Bruce, Cameron, Craig, Macdonald, Macnee. *Representatives in the General Council of the Association:* The President and Secretary.

Drs. Duguid and Turner were appointed delegates to the North of Scotland Medical Association.

Dinner.—The members and their friends afterwards dined together.

MIDLAND BRANCH: SPECIAL GENERAL MEETING.

A SPECIAL general meeting of the above Branch was held in the Assembly Rooms, Boston, on Thursday, September 24th. In the absence of the President, Dr. MORRIS (Spalding) took the Chair.

New Rules.—After briefly addressing the members, Dr. MORRIS proposed a code of rules for the guidance of the Branch. The rules, after a little discussion, were unanimously adopted.

Papers.—The following papers were read.

1. On Tobacco. By Francis Snaith, M.D.

2. On some New Remedies for producing Sleep. By A. Mercer Adam, M.D.

3. On Venesection. By Walter Clegg, Esq.

New Members.—The following gentlemen were elected members of the Association: Thomas Nixon, L.R.C.P.Ed., Kirton; James A.

Storey, L.R.C.P.Ed., Sutterton; W. J. H. Wood, L.R.C.P.Ed., Boston; Frederick H. Atkinson, L.F.P.S.Glasg., Benington, Boston.

Dinner.—The members, with the Mayor and the Vicar of Boston, afterwards dined together at the Peacock Hotel.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

The first meeting of the eighteenth session (1874-75) was held at Rochester on September 25th; Adam Rae Martin, Esq., in the Chair.

The next meeting was appointed to be held at Maidstone, on November 20th; to be presided over by H. Cecil Smith, Esq.

New Members—Two gentlemen were elected members of the Association without Branch membership; viz.: William Redmond, Esq., R.N.; and George Roper, M.D., of West Street, Finsbury Circus, E.C.

Paper.—A paper was read on Modes of Death in Hernia after Operation, by Frederick H. Edmonds, Esq.

The meeting discussed the subject of Provident Dispensaries. The principle of self-help was approved, but no resolution was passed on the subject.

Dinner.—The members and visitors dined at the Bull Hotel.

NORTH OF ENGLAND BRANCH: AUTUMNAL MEETING.

The autumnal meeting of this Branch was held at the Convalescent Home, Saltburn-by-the-Sea, on Thursday, September 17th; the President, Dr. A. Legat, in the Chair. Twenty-two members and five visitors were present. Six new members were elected.

Letters.—A letter was read from Henry Pease, Esq., of Stanhope Castle, expressive of regret at being unable to be present to welcome the Branch to Saltburn-by-the-Sea. A letter was read from Mrs. Edward Charlton, acknowledging the receipt of the resolution of condolence upon the death of Edward Charlton, M.D., and thanking the members for their kind sympathy.

Papers.—The following were read.

1. Dr. H. J. Yeld: The Health and Mortality of Towns and Villages, as affected by Sanitary Legislation. Dr. Yeld in the first place pointed out the various agencies at work which deteriorate the health of the people, increase the infant mortality, and produce that class of diseases termed zymotic, from which so many thousands of our countrymen and women die annually; and, secondly, showed how modern legislation tended either to stamp out such agencies or counteract the evil effects produced by them. By way of illustration, the reports on the sanitary condition of the borough of Newcastle-upon-Tyne and Sunderland were contrasted. In respect of the death-rate, it was stated that in Newcastle during 1873 it was 30.1 per 1,000 of the population, and in Sunderland 22.7 per 1,000. The total number of deaths in these two towns from preventable diseases of the zymotic class was 975 and 337 respectively, or rates equal to 7.4 and 3.2 per 1,000. The rates of mortality in children under one year were 7.8 and 7.2. The influence of density of population in increasing the general mortality of a district, and also producing and propagating zymotic disease, was unmistakably illustrated. To improper, unwholesome, and adulterated food, much of the infant mortality was attributed. The habit of feeding children on anything and everything was strongly condemned. Respecting intemperance as a cause of deterioration of health, it was affirmed that not only was it the means, directly and indirectly, of causing great loss of life among all classes of society, but it affected future generations by so retarding the mental and physical development of the children of the intemperate, that many grew up to manhood imbeciles and idiots, while others had to suffer for the sins of their forefathers by passing through life with enfeebled constitutions. The means provided by the legislature with a view of removing such agencies, or of counteracting the ill effects likely to be produced by them, in the various Acts of Parliament, were stated to be of little use, unless the responsible person at the head of affairs, whose duty it was to inquire into the various causes affecting the health of any particular locality or district, had power given him to compel the removal of the same. Such a responsible person was found in the medical officer of health, whose appointment was made compulsory by the Public Health Act of 1872. Accordingly, the appointments had been made by sanitary authorities throughout the country in a variety of ways and from different motives; those authorities which had the public interest at heart having appointed officers at fair salaries, who were not allowed to engage in private practice, so as to be able to devote their individual attention to the important duties connected with the office; while others had been appointed at most contemptible salaries, merely to comply with the Act, and not with the intention of any good sanitary work being done. For a medical officer of health to carry out the duties of his office to his own satisfaction and that of his brother medical men and the public, it was much to be preferred that he should be free from the trammels and worries of practice, and other influences which would have a tendency to interfere with his carrying into effect many provisions of Local Government and other Acts, which, if put into operation, might injuriously affect his own private interests.—Dr. Eastwood, as Chairman of the Rural Sanitary District of Darlington, expressed himself in strong terms against the Public Health Act, with especial reference to the clashing of the rural and urban authorities. He thought it was an absurdity for each to appoint its own officers. He was in favour of large areas, especially in country districts, and chiefly in the disposal of the sewage. The great difficulty, as influencing the constitution of the rural boards, was the position in society from which the members were taken.—Dr. Byrom Bramwell, as an ex-officer of health, was in favour of medical officers of health being all independent of private practice. He advocated one medical officer of health with a wide area, and the Poor-law surgeons of the district as subordinate officers of health.—Dr. Fothergill and Mr. Hedley also took part in the discussion.

2. Dr. J. W. Eastwood: A Case of Insanity, complicated with Partial Paralysis.

3. Mr. J. T. Parkinson: A Case of Chronic Bright's Disease of the Kidneys (Small Contracted Variety).

4. Mr. J. T. Parkinson: A Case of Paracentesis Thoracis.

5. Dr. G. H. Philipson: A Case of Hydatid Disease of the Liver treated by Puncture.

Votes of Thanks.—Dr. Barker moved, and it was carried, "That the best thanks of the meeting be given to the readers of the papers."

The President moved, "That the warmest thanks of the meeting be given to Henry Pease, Esq., Stanhope Castle, for his kindness in granting the use of the Convalescent Home for the purposes of the meeting." The resolution was carried.

Dinner.—The members and their friends dined together afterwards at the Alexandra Hotel, Saltburn; the President in the chair; and Dr. Philipson, Honorary Secretary of the Branch, in the vice-chair.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, October 9th, 1874.

Prescott Hewett, F.R.C.S., President, in the Chair.

The President exhibited a copy of the new volume of *Transactions*, and stated that all the gentlemen, British and foreign, who were elected Honorary Members of the Society at the last meeting, had written to acknowledge and accept the distinction thereby conferred.

Traumatic Stricture of Trachea.—Mr. Henry Lee showed a patient from whom he had removed the upper ring of the trachea for traumatic stricture. The case had been already related in the proceedings of the Society just published. The patient had twice narrowly escaped suffocation, and had been relieved on each occasion by tracheotomy. The third operation, that of removing the upper ring of the trachea, which had been the cause of the stricture, was performed after the patient had lost his voice for six months. The patient was still obliged to wear a tube, and through the opening the second ring of the trachea could be seen encroaching somewhat on its cavity, illustrating the way in which the stricture had been produced. His speech was entirely restored by the operation. Mr. Lee remarked that, as far as he knew, this was the only case in which such an operation had been performed.

Bloodless Surgery.—Professor Esmarch (of Kiel) read a paper on bloodless surgery, which will be found at p. 491 of this day's Journal.

The President remarked that all the members were greatly obliged to Professor Esmarch for his communication, which he had read in such very admirable English; and he regretted that it was not known sufficiently early that the paper was to be read, or assuredly most of the hospital surgeons of London would have been present to join in the discussion.—Mr. Mac Cormac, although one of the first in England to bring the method of Professor Esmarch into general notice, had not yet had sufficient cases to enable him to affirm or contradict the Professor's assertions respecting the decreased mortality after operations done according to his plan. He could substantiate the statement that no ill effects followed its adoption. It had been said that at one of the metropolitan hospitals gangrene of the margins of the flaps in amputations was thought to have occurre[illegible]l not know that the observation was ever substantiated. In [illegible] of the knee-joint, after the removal of the elastic band from the thi[illegible], the tissues around the joint became red, as was usual, and a little blood was apt to flow into the space between the ends of the approximated bones at the knee after the limb had been done up, which was of course a disadvantage. The search after small portions of diseased bone was greatly facilitated by the adoption of the method.—Mr. H. LEE said that this was the first time he had ever regretted that a paper should not last beyond ten minutes. Professor Esmarch, he thought, in consequence of the want of time, had mixed up two subjects. His method was adopted in two sets of cases; those in which the blood was,.and in which it was not, pressed out of a part before the operation. In the former class of cases, Mr. Lee had been greatly pleased with the plan recommended; notably, in the removal of a vascular tumour from the palm of the hand, in which he could have done nothing without the bandage. In the second class of cases, viz., those in which an elastic tubing was put on the part without previous pressure of the blood from the tissues, he would ask in what the tubing differed from an ordinary clamp? He had taken off a testicle of one pound in weight, using a clamp, without loss of blood, and had excised portions of tongue in the same way.—Mr. CLOVER said that the carbolic acid spray had been alleged to be the cause of sloughing of the edges of the flaps in the cases mentioned by Mr. Mac Cormac; it would probably have more effect on a bloodless than on a bloody surface. He thought the elastic rope was unreliable, and apt to break if kept for a long time; and that an ordinary tourniquet, if cardboard were placed beneath it, so as to prevent the puckering up of the skin, as he had used it for many years, was equally as effective as, and less liable to break, than the elastic rope.—The PRESIDENT considered Mr. H. Lee's case, at which he himself had been present, was one of the best illustrations possible of the value of Professor Esmarch's method. One could see the exact origin of the tumour in the palm; the large vessels were seen encircling the tumour, and were avoided; and all the parts were rendered distinct and wax-like in appearance. With regard to the Professor's case of amputation of penis and removal of glands from the groin, the President considered it a bold operation.—Professor ESMARCH did not clearly see how, in that case, a clamp could have been firmly applied. In many instances, that instrument might form another means of attaining the bloodless method in operations; but he considered the application of the India-rubber tubing always easier. He had never seen an India-rubber rope break after application; nor would it do so if the material composing it were good. The difference between the common tourniquet and the elastic rope was, that the former was passive, the latter active, in its pressure.

Removal of a Foreign Body from the External Auditory Canal.—Mr. DALBY related the method he had employed to extract some plaster of Paris which had become moulded and hardened in the external auditory meatus. The accident had occurred to a gentleman while he was having a cast taken of his head, and the plaster at that time had found its way into the meatus, and rapidly hardened. It partially filled the passage, was in close contact with the tympanic membrane, and caused complete deafness and considerable tinnitus. The following was the plan adopted. Whilst light was thrown through the speculum worn on the forehead, strong hydrochloric acid was applied on the end of a pointed piece of wood, drop by drop, to the certre of the mass, care being taken not to allow any of the acid to touch the meatus. Several drops of the acid were thus applied on four occasions, and the concrete became so far softened that a small hole could be drilled into it with a cataract needle, and pieces were from time to time picked out with a little hook, which was in common use among dentists. The great mass of the plaster, however, was softened by the application of acetate of lead, the action of which was to convert the sulphate of lime into sulphate of lead and acetate of lime. The latter salt being very deliquescent, the consistence of the plaster was so altered that the whole of it was finally piecemeal removed with the hook referred to. Throughout the proceedings, which occupied eight sittings of about half an hour each, reflected daylight was employed. The tympanic membrane was found uninjured, and the hearing unimpaired.

Mr. CLOVER did not know if it occurred to Mr. Dalby to use, for perforating the foreign body, the American instrument, worked by one's foot, and used by dentists for drilling holes, etc., in teeth. It would have done the perforation easily and with very great delicacy of manipulation.—Mr. DALBY said that the idea had occurred to him, and that he had examined the instrument at Mr. Edgelow's, and found it produced some pressure, which gave pain. Besides, as he had to use the speculum, he could more easily perforate with an instrument which employed the hand only. Further, he had waited until the body was first softened.—Mr. PICK inquired if the foreign body had produced any ulceration of the meatus, and whether it would have been likely to come away, if left to itself?—The PRESIDENT thought that Mr. Dalby deserved great credit for the acuteness with which he had proceeded throughout the case. There was sometimes great difficulty in attempting to remove foreign bodies from the ear, and the attempt sometimes produced great injury. If such a body were not easily extracted, the usual dictum was to leave it alone, at any rate, for a time. That, however, could not be done in this case, as it would have produced ulceration of the tympanic membrane.—Mr. DALBY replied that no ulceration had been produced. Even if the mass had become loose, it could not have come out, because the meatus dipped down internally, and the mass consequently was larger at its inner end. It had to be softened before it could be removed.

A Case of Caries of the Atlas and Axis.—Mr. WARRINGTON HAWARD read the notes of the case. The patient was a boy aged 8 years, who came of a healthy family, and had good health. His only ailment was a wry neck, which was of nine months' duration. The face was drawn towards the right shoulder, the face pointing to the left. There were wasting and want of irritability of the left sterno-mastoid muscle. There was a complete absence of pain, even when passive movements of the head were made in all directions, or when pressure was made upon the head or spine. There was no projection nor thickening over the spine; no enlarged glands in the neck; nothing unnatural to be felt behind the pharynx. Walking, running, or raising himself from the recumbent posture, gave him no pain. There were no signs of scrofula about the child; nor, indeed, could any of the symptoms characteristic of disease of the cervical spine be discovered by repeated examinations. Nevertheless, there existed extensive caries of the atlas and axis; for the boy died of tubercular meningitis, and *post mortem* there was found destruction of the superior articulating surfaces of the axis, of the odontoid process, of the lateral masses of the atlas, and of the cheek and transverse ligament. The ulceration of the axis was such as to allow the ring of the atlas to sink down upon its transverse processes, and thus there was very little displacement forwards of the atlas and head. The upper part of the cord and origin of the left spinal accessory nerve was slightly pressed upon. The case showed how great an amount of disease of the atlo-axoid joint might exist without any of the characteristic symptoms, and in an otherwise healthy child. Disease of the cervical spine was, on the other hand, closely simulated by a case of periostitis of the inferior surface of the occipital bone.

The PRESIDENT remarked upon the total absence of all pain and symptoms pointing to the real nature of the case.—Professor ESMARCH had seen some such cases in which he had found very great ulceration of the bone without symptoms. A patient had come to him with contraction of both trapezii muscles, and an interval between the spinous processes of the fourth and six cervical vertebræ. And when, in that case, the head was bent forward, the spinous process of the intervening fifth vertebra could be distinctly pressed forwards both in and out of position; and yet, with all that disease, the only symptom was the contraction of the trapezii muscles.—The PRESIDENT had recently seen a lady who was reported in society to have every day a "fresh bone in her spine out". Every day, one bone of the spine was said to become dislocated, and the bone-setter who was in attendance duly replaced daily that bone!

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

LLANDUDNO.—The annual report on the sanitary condition of this favourite seaside resort contains a considerable amount of matter which has mainly a local interest. Thus an account is given of the varying amount of pauperism prevailing in the district, of the prevailing meteorological conditions during each month of the year, and of the special characters of the water with which the town is provided, and which is derived from springs on the Great Orme's Head. But there are other matters which are of interest to visitors. It appears that at present the outlet of the main sewer is into the sea, and that it becomes tide-locked twice during every twenty-four hours, thus affording unusual facilities for the forcible escape of sewer-air into houses. In view of this fact, the Town Commissioners issued a circular last year, calling upon all owners and occupiers of houses to ventilate their house-drains and soil-pipes, in accordance with certain principles laid down by their Medical Officer of Health; but it is much to be regretted that the owners of property in this town, which is dependent for its prosperity on the influx of visitors, have, with but few exceptions, disregarded the warning given to them; and when Dr. Nicol issued his report in May last, there were only about forty-five out of seven hundred houses in which efficient drain-ventilation had been provided. Where proper steps have been taken in this matter, a certificate to this effect has been granted by Dr. Nicol. The Commissioners appear to be desirous of remedying the sanitary defects of the town. They have in view a scheme which will lessen, if it will not prevent, the sewage-pollution of the sea close by the town, and a large number of additional ventilators have been added to the public sewers. Referring to the latter point, Dr. Nicol very truly says: "Oxygen, being the best of all disinfectants, can scarcely be admitted too freely into the sewers; and the same channel by which fresh air enters, permits and encourages the exit of noxious gases; the more numerous the openings, therefore, the more diluted becomes the gases; consequently the less perceptible are they to the senses, and the less dangerous to health." This sentence implies real ventilation through plenty of openings, and not obstructed ventilation by means of charcoal trays placed in the ventilating shafts. We also cordially endorse Dr. Nicol's suggestions as to the abolition of midden-privies. They should, in every case, be connected either with properly constructed water-closets, with ample means of ventilation and flushing, or into dry closets, the capacity of which is so limited that the frequent removal of their contents becomes essential.

Radford.—The sanitary district of Radford lies to the north-west of Nottingham; it is situated chiefly on red sandstone, and slopes towards the Leen Valley. The mortality from all causes is very high; it was 27.1 per 1000 in 1872; and though it fell to 24.1 in 1873, yet this lessened mortality was, to an unnecessary degree, due to the prevalence of infectious diseases, amongst which diarrhœa was by far the most prominent. The neglect of children, in a manufacturing district such as Radford, where mothers spend their days in factories, may have much to do with this mortality; but, in addition to this, the population is somewhat densely massed in certain localities, the houses are ill-ventilated, there are defects in carrying out the midden system, and the water-supply is condemned as impure. Both in 1871 and 1872 enteric fever was very fatally prevalent in this district, and though steps have, according to Mr. Hatherley, been taken to remedy some conditions favouring the excremental pollution of the air breathed, yet it is evident that other causes calculated to favour the spread of infectious diseases still remain in operation. Situated as Radford is, it is highly important that the Sanitary Authority should have at its disposal both proper means for isolating the sick of infectious diseases, and efficient means of disinfection.

APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

Elliston, George S., M.R.C.S.Eng., for the Stamford Rural Sanitary District.
Iliffe, Charles W., L.R.C.P.Ed., for the Coventry Rural Sanitary District.
Hesslegrave, Joseph, M.R.C.S., Eng., for the combined Golcar, Linthwaite, Longwood, Marsden-in-Almonbury, Marsden-in-Huddersfield, Scammonden, and Slaithwaite Urban Sanitary District.
Saer, David Protheroe, L.R.C.P.Ed., for the Pembroke Rural Sanitary District.
Symonds, Charles P., M.R.C.S.Eng., for the Ormskirk Rural and the Lathom Urban Sanitary Districts.
Redwood, Thomas Hall, M.D., for the Rhymney Urban Sanitary District.
Williams, William E., M.R.C.S., Eng., for the Bedwelty Rural Sanitary District.

POOR-LAW MEDICAL APPOINTMENTS.

Davis, Hugh A., M.D., appointed Medical Officer to the Workhouse, and Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Newport Dispensary District of the Newport Union, co. Mayo.
Fox, Charles, M.R.C.S., appointed Medical Officer for the Topsham District of the St. Thomas Union, Exeter.
Fraser, Alexander D., M.B., appointed Medical Officer for the Workhouse and the Ponteland District of the Castle Ward Union, Northumberland.
Given, Marcus, L.K.Q C.P., appointed Medical Officer and Public Vaccinator for the Blessinton and Ballymore-Eustace Dispensary District of the Naas Union, co. Kildare, *vice* Robinson, resigned.
Griffiths, David, L.F.P.S.Glasg., appointed Medical Officer and Public Vaccinator for the Whitford No. 2 District of the Holywell Union.
Hoffman, Octavius W., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Eardisley District of the Kington Union, Herefordshire.
Jones, Thomas C., M.R.C.S.Eng., appointed Medical Officer for the Shepperton District of the Staines Union.
Kerr, Norman S., M.D., appointed Medical Officer to the Christ Church District of the parish of St. Marylebone.
Kingsford, Percival, M.R.C.S., appointed Medical Officer for the Sunbury District of the Staines Union.
Macpherson, Charles, M.B., appointed Medical Officer for the parish of Stromness, Orkney, *vice* Traill, deceased.
M'Creery, James O., L.R.C.S.I., appointed Medical Officer and Public Vaccinator for the Messenden District of the Amersham Union.
Robertson, John Alexander, M.B., appointed Parochial Medical Officer and Public Vaccinator for Wemyss, Fifeshire, *vice* Bonthron, deceased.
Roe, Robert G., L.[illegible]ppointed Medical Officer, Public Vaccinator, and Registrar of Births[illegible]Ballycroy Dispensary District of the Newport Union, co. Mayo.
Scott, Henry M., L.[illegible].I., appointed Medical Officer, Public Vaccinator, and Registrar of Births, et[illegible], for the Achill Dispensary District of the Newport Union, co. Mayo.

MILITARY AND NAVAL MEDICAL SERVICES.

Staff-Surgeon V. S. Gouldsbury was recently sent on a mission to Denkera to obtain the release of the Ashantee prisoners, the king of that country having refused to deliver them. A force, composed of fifty Houssas, was sent with the mission, and a fine of thirty ounces was imposed upon the king. The mission returned (September 15th), having proved entirely successful.

Naval Medical Service.—Our contemporary the *Broad Arrow* has the following well timed remarks. "It is well known that for several years past there has been such a dearth of medical officers in the navy, that many seniors have been compelled to accept very subordinate positions; but, as this was generally an alternative of going on half-pay, they were too glad in most instances to get employment at the sacrifice of dignity, and, so long as the appointment was a tolerably comfortable one, there has been but little complaint. Matters, however, seem to be coming to a crisis, as we notice that a second-class staff-surgeon, and a medical officer of fourteen years' standing, is now serving in one of the boys' training brigs—a lieutenant's command, and an appointment hitherto invariably held by a junior. Can we wonder that medical men are chary of entering a service where so little consideration is nowadays shown either to their age or rank, and where, after long years of foreign service in a junior grade, they find themselves in a position even more subordinate than that in which they commenced life!"

The Civil Surgeonship at Benares.—Surgeon-Major Robert Cockburn, civil surgeon of Benares, having been appointed deputy inspector-general of hospitals at Shillong, one of the appointments of the medical department has fallen vacant. The pay of the civil surgeon of Benares, including the charge of the lunatic and destitute asylums and the Queen's College is 1443 rupees *per mensem*, besides the advantage of an extensive practice among the rajahs, nawabs, raos, and political *détenues* resident at Benares, as also the Europeans domiciled there. Last year, when there was a probability of Dr. Cockburn's promotion taking place, a numerously signed memorial, praying that the appointment be conferred on Dr. W. R. Hooper, superintendent of the Benares Central and District Jails, was forwarded to Sir William Muir, and had the post then become vacant it is probable that the prayer of the memorialists would have been granted. Should Dr. Hooper succeed to the civil surgeoncy, his present post is a prize of no mean value—the aggregate monthly income being 1100 rupees, *i. e.*, 850 and 150 for the Central and District Jails respectively, and 100 rupees for house-rent.

WATER-ANALYSIS IN THE NAVY.

Sir,—I beg to draw your attention to the last insult made to the medical profession serving in Her Majesty's Navy. A short time ago, an official announcement appeared, stating that Her Majesty's Government had decided to supply apparatus for water-analysis to every ship in commission. I have passed through the Netley course, where Analytical Chemistry is made an especial branch of study; and, therefore, was much pleased on reading this notification, hoping to spend many profitable hours in the pursuit of this branch of science. On arrival home, one of the earliest calls I made was to the Naval Hospital, to see this condescension of the Government; and this was the wretched abortion produced. There was a deal box, about eight inches square, having painted on the lid the words "Water-tests—Poison". On opening the box, there are seen six four-ounce stoppered bottles containing Nessler's solution, sulphuric acid, starch-powder, and solutions of oxalate of ammonia, nitrate of silver, and chloride of gold. This production is, then, the apparatus for water-analysis. There are no burettes, no cubic *centimètre* measures, no litre-flasks; in fact, the whole concern is worthless. What can be the utility of sending young surgeons to Netley, and of their receiving Dr. Parkes's instruction, if they are shelved in this manner? Why cannot our rich country suppply us with Dr. Parkes's cabinet for analysis, sold by Griffin and Co.? Then, indeed, some valuable information might be obtained, not only of the constituents of water at foreign stations, but of the structures and composition of ship's biscuit, ship's pork, and other navy delicacies. I am, etc., Sea Dog.

ARMY MEDICAL INSUBORDINATION.

Sir,—I would call your special attention to a letter signed "Medical Officer", in the *Lancet* of the 10th instant, in which the writer expresses an opinion that the army medical officers "should be crushed for insubordination", if they continue to struggle together for their very existence. It is to be hoped such an unheard of insinuation will meet with its proper denunciation from you, who have done already so much for the members of your profession in the service, and that there will be no surrender until the programme of the Parliamentary Bills Committee is carried out, and the present meddle-muddle is done away with.—I am, etc.,

"United we conquer, divided we fall".

NAVAL MEDICAL APPOINTMENTS.

Brown, Surgeon R. J., to the *Jumna*.
Coates, Staff-Surgeon (second class) M., to the *Royal Adelaide*, additional, for temporary service in Plymouth Hospital.
Collins, Staff-Surgeon (second class) A., M.D., to the *Simoom*.
Duke, Surgeon V., M.B., to the *Hector*.
Hawton, Surgeon James W., to the *Newcastle*.
Madeley, Staff-Surgeon G. H., to the *Royal Adelaide*.
Sweetman, Surgeon Richard J., to the *Newcastle*.
Ward, Staff-Surgeon M. S. P., to the *Doris*.

OBITUARY.

SOORJOCOOMAR GOODEVE CHUCKERBUTTY, M.D.,

PHYSICIAN TO THE CALCUTTA HOSPITAL, ETC.

With much regret we have heard of the death of Dr. Soorjocoomar Goodeve Chuckerbutty, Professor of Materia Medica and Clinical Medicine in the Calcutta Medical College, and surgeon-major in the Bengal Army. A few months ago, in consequence of impaired health, Dr. Chuckerbutty obtained two years' leave of absence from India, and soon afterwards came to London. While there, his health apparently improved; and he was present at the meeting of the Association in Norwich. He died, however, on September 29th, at the early age of forty-eight. Dr. Chuckerbutty, who was by birth a Hindoo of the Brahmin caste, was the youngest of four natives of India who came to study medicine at University College in 1845. He took the degree of Doctor of Medicine at the University of London in 1849, and became a Member of the Royal College of Surgeons of England; and soon afterwards returned to Calcutta. While in England, he embraced Christianity, taking in addition to his native names that of Goodeve, the surname of his tutor Dr. H. H. Goodeve, lately Professor of Anatomy and Midwifery in the Calcutta University. After some years, he returned to London for a short time in order to become a candidate for an appointment in the East India Company's Medical Service; and, having in January 1855 presented himself at the first examination on the new and improved plan instituted by the Company, he was placed second by the examiners (Messrs. Busk, Hooker, Paget, and Parkes) in a list of twenty-two successful candidates. Returning to India, he became successively Assistant-Physician and Physician to the Hospital at Calcutta, and also held, at the time of his death, the office of Professor of Materia Medica in the Calcutta University. In 1863, Dr. Chuckerbutty took the leading part in the formation of a Bengal Medical Association, which at the same time became affiliated to the British Medical Association as one of its Branches. At the first meeting, in proposing the formation of the Society, he made a very able speech on the advantages of association, which was published in the British Medical Journal for August 1st, 1863. He was appointed the first Secretary of the Branch, but held the office only one year. At the annual meeting in 1864, he delivered a very interesting address on "The Present State of the Medical Profession in Bengal", pointing out the improvements which had been brought about by the institution of the Calcutta Medical College. This address was published in the British Medical Journal for July 23rd and 30th, 1864, and also in No. xvii of the *Indian Annals of Medical Science*. Dr. Chuckerbutty also contributed to this Journal papers on Iodide of Potassium in the Treatment of Aneurism (July 19th and 26th, 1862); a Case of Amyloid Degeneration (September 10th, 1864); Two Cases of Cyanosis (September 17th, 1864); A Case of Phlegmasia Dolens, and a Singular Case of Hydrophobia (?) (September 24th, 1864); Cases of Typhus Fever in Calcutta (December 10th, 17th, and 31st, 1864). He also contributed to the *Indian Annals of Medical Science* articles on Cases Illustrative of the Pathology of Dysentery (No. xix); on Cholera (No. xxii); and on the Treatment of Tetanus by Large Doses of Indian Hemp (No. xxiv). The same periodical (No. xx) also contained a portion of an elaborate report by him on the Small-pox Hospital at Chitpore. In addition to his professional engagements, Dr. Chuckerbutty was an honorary magistrate and justice of the peace for Calcutta. He was a man of amiable disposition, of high honour, and earnestly devoted to the advancement of the scientific and social interests of his profession. He has left a widow and several children, of whom one son is a student in the medical department of University College.

ARTHUR JACOB, M.D.

By the death of Dr. Arthur Jacob, which took place on September 21st, at the residence of his son, at Barrow-in-Furness, at the patriarchial age of 85, the medical profession has lost one of its most remarkable men, and the Irish School of Surgery of the past generation one of its most brilliant lights and most respected members. From the year 1819, when, at the early age of 28, Dr. Jacob, raised himself, by his discovery of the *membrana Jacobi*, to the highest rank among the anatomists of his day, until a few years since, when he retired from his public offices and professional duties with all the honour which his brethren could confer upon him, he never ceased to occupy a prominent position among the Irish representatives of medical science; and his connection with the Royal College of Surgeons in Ireland as a Councillor and as its Professor of Anatomy and Physiology is sufficiently recent to have left in the minds of his compatriots fresh memories of his great energy, unquestioned talent, and unsullied integrity.

Dr. Jacob was the son, grandson, and brother of successive members of a family of surgeons who occupied the highest social and professional position in the Queen's County. His father was for many years surgeon to the chief infirmary in that district, and the youth of Arthur Jacob may be said to have been spent in the atmosphere of his profession. Leaving home in 1807, he became the pupil of Abraham Collis at Steevens' Hospital; and, after an apprenticeship of seven years, he graduated as M.D. in Edinburgh in 1814. After continued study in London and Paris, in the former metropolis under Sir Astley Cooper and Sir Benjamin Brodie, he returned to Dublin, and, having taken the surgical diploma of his own College, was chosen by Macartney, who was then Professor of Anatomy in the University, to be his Demonstrator. In this position, he acquired the character as an anatomical investigator, which he carried with him until the last years of his life. The fruits of much of his anatomical labour at this time found a place in the fine museum which Macartney sold to the University of Cambridge, and the remains of which are still there. Ceasing to be connected with the University, Dr. Jacob entered into conjunction with Graves, Marsh, Cusack, and Hart, and founded the Park Street School, which, though only continued for a few years, left behind it a name of which all its pupils are, to this day, justly proud. From this school, in 1826, Dr. Jacob was chosen Professor of Anatomy and Physiology in the Royal College of Surgeons in Ireland, where his fame followed him, and attracted to the school crowds of eager students and admiring listeners. From that day until 1869, he assumed and sustained the position of the leading mind, both in the educational working of its school and in its administration. With a constancy which was unshaken, a determination which knew no obstacle, and an integrity of purpose which justified all his acts, he devoted himself to the interests of the College, and left upon its policy for a quarter of a century the impress of his vigorous mind.

In the inception and consummation of the Poor-law and medical charities and the Lunacy systems of Ireland, and in the successive attempts at medical reform which were brought before Parliament during that period, Dr. Jacob was a leading actor, always as the champion of the interests of his medical brethren and the protector of the integrity of his College; and, while the energy of his proceedings and the incisiveness of his speech necessarily clashed with the feelings of those who were opposed to him in opinion, there remains at this day but one sentiment—that of admiration for his talents and respect for his fidelity to his College. This latter and most engrossing characteristic of Dr. Jacob manifested itself peculiarly in the manner of his retirement from his Professorship and from his public life. Although he had continued to discharge his professorial duties up to a few weeks before his final resignation with almost unabated vigour, and might reasonably have hoped to retain the emoluments of the chair for many years if he could be satisfied to occupy so important a position in consciousness than incapacity to do it justice was coming upon him, yet he no sooner felt the inevitable effects of age upon his mental and physical powers, than he at once retired from an office, the duties of which he felt he could no longer fulfil with honour to himself or advantage to the school. Shrinking from the demonstration of friendly regret which he felt would be forced upon him if he were to make a regular public exit, he departed from Ireland, leaving behind him the scene of his well-loved labours and the sympathetic expressions of his colleagues and friends. The College, however, which had thrice elected him their President, refused to be thus prevented from expressing its regard for the man and gratitude for his services. A warmly phrased vote of thanks, an order for the execution of his portrait, and a vote of one hundred guineas for the purchase of a testimonial gift, recorded the unanimous feeling of the Council; and the universal sorrow of the profession at his death gives witness that these kind feelings have not lost their force during the years which have since elapsed.

Of Arthur Jacob, the worst which can be said is that those objects which were nearest his heart he loved "not wisely but too well". On more than one occasion, the strength of his feeling and the vigour with which he went forward to his object gave him the appearance of intolerance in opinion and violence in action; and his unhesitating candour made for him antagonists, whom a more cautious and disingenuous diplomatist would have conciliated.

PATRICK M. MACKENZIE, M.D.

Dr. Patrick M. Mackenzie was the youngest son of the late Kincaird Mackenzie, Esq., who was Lord Provost of Edinburgh in 1817-19, and was born in that city in 1821. He was educated at the academy and university of his native city, and graduated as M.D. in 1844. He proceeded to the Island of Tobago in 1847, and has since practised there, with the exception of two years, when he was home, in 1864-5 and 1871-2. For several years he has been a partner in several large sugar estates, and has been a member of the legislative council of the island.

Dr. Mackenzie had often been subject to attacks of fever, from exposure in the discharge of his duties; but his health continued pretty good till about the beginning of this year. A visit to Barbadoes in the spring failed to restore his health, and he delayed too long in coming home to a temperate climate. He was obliged to leave Tobago in the end of August in shattered health. He suffered much from diarrhœa during the voyage home in the *Tagus*, and his spleen was greatly enlarged. When he reached London on September 14th, he was much exhausted, and died at Upper Woburn Place, Tavistock Square, on the 19th. Dr. Mackenzie was a bachelor. He was much respected and beloved in the island of Tobago, being of a most kind and humane disposition.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 8th, 1874.

Beatty, Thomas Carlyle, Seaham Harbour, Durham
Sewell, William, 6, Wilton Road West, Uxbridge Road

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Surgeon.

BRENTFORD UNION—Medical Officer and Public Vaccinator for No. 10 District, being the Workhouse: £140 per annum, and fees. Applications, 20th instant, to Wm. Ruston, Clerk, New Brentford.

BRIDGNORTH INFIRMARY and DISPENSARY—House-Surgeon: £100 per annum, furnished apartments, etc. Application, 24th instant, to the Honorary Secretaries.

BUILTH UNION—Medical Officer for the Builth District: £55 per annum.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY—Resident Medical Officer: £100 per annum, board, etc., or £120 per annum, lodging, etc., without board. Application to Howell Howells, Sec.

CRICHTON ROYAL INSTITUTION, Dumfries—Assistant Medical Officer.

GATESHEAD DISPENSARY—Assistant-Surgeon: £120 per annum. Application, 21st instant, to Joseph Jordan, Honorary Secretary, 25, Close, Newcastle-upon-Tyne.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Surgeon: £150 per annum.

JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer: £120 per annum, furnished rooms, etc. Applications to the Rev. P. A. Le Feuvre, Honorary Secretary.

KENT LUNATIC ASYLUM, Chartham, near Canterbury—Medical Superintendent: £600 per annum, house, etc Application, 28th instant, to John Callaway, Clerk to the Committee, Canterbury.

KING'S COLLEGE HOSPITAL—Assistant-Physician.

KING'S COLLEGE, London—Professor of Physiology.

LANCASHIRE GAOL, Lancaster Castle—Surgeon. Application, 31st instant, to Messrs. Birchall and Co., Deputy Clerks of the Peace, Preston.

LUTON UNION—Medical Officer for the Barton District: £40 per annum.

MAGHERAFELT UNION, co. Londonderry—Medical Officer for the Magherafelt Dispensary District: £100 per annum.

METROPOLITAN FREE HOSPITAL—Assistant-Physician. Applications, 21st instant, to the Committee.

MOHILL UNION, co. Leitrim—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rynn Dispensary District: £120 per annum, and fees. Application, 20th instant, to Francis Gearty, Honorary Secretary, Furnaloughta, Dromod.

NEWCASTLE-UPON-TYNE UNION—Medical Officer for No. 3 District: £85 per annum.

NEWMARKET UNION—Medical Officer for the Workhouse: £50 per annum and midwifery fees. Applications, 26th instant, to Thomas Ennion, Clerk.

NORTH RIDING LUNATIC ASYLUM, Clifton, York—Assistant Medical Officer.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill—Junior Resident Medical Officer during remaining stay of present Senior, and Senior Resident Medical Officer afterwards, and Wife as Superintendent of Nurses: £250 first year, £300 a-year afterwards, board, rooms, etc. Applications, 21st instant, to Ralph Hordley, Secretary.

RAMSGATE and ST. LAWRENCE ROYAL DISPENSARY—Resident Medical Officer: £100 per annum, furnished apartments, etc. Application, 20th instant, to A. R. Emmerson, Secretary.

ROYAL FREE HOSPITAL, Gray's Inn Road—Junior House-Surgeon.

SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich—Visiting Surgeon.

SOLIHULL UNION, Warwickshire Medical Officer for the Knowle District: £34 per annum and fees. Medical Officer and Public Vaccinator for the Yardley District: £17 per annum and fees. Applications, 26th instant, to E. O. Smith, Clerk.

STAMFORD UNION, Lincolnshire—Medical Officer for the Wansford District: £25 per annum.

TOWCESTER UNION—Medical Officer for the Blakesley District. £60 per annum and fees. Apply to W. Whitton, Clerk.

UNIVERSITY COLLEGE, London—Professor of Comparative Anatomy and Zoology. Applications, 31st inst, to John Robson, B.A., Secretary to Council.

WESTERN GENERAL DISPENSARY—Resident Dispenser: £84 per annum to commence, furnished apartments, etc. Application, 19th instant, to William Kimpton, Secretary.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, Soho—Honorary Surgeon.

YORK COUNTY HOSPITAL—House-Surgeon: £100 per annum, board, and lodging.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Allardyce, James, M.B., appointed Resident Assistant Medical Officer to the Durham Lunatic Asylum.

Andrews, R. J., M.R.C.S.Eng., appointed Resident Assistant Medical Officer to the Fisherton House Lunatic Asylum, Salisbury.

Atkins, George P., L.R.C.P.Ed., appointed Resident Medical Officer to the Cork Street Fever Hospital, Dublin.

Baker, Edward L., L.R.C.S.Ed., appointed a Resident Medical Officer to the York Dispensary, *vice* W. H. Spurgin, M.R.C.S.Eng., resigned.

Beatson, George Thomas, M.B., appointed Senior House-Surgeon to the Newcastle-on-Tyne Infirmary, *vice* F. Page, M.D.

Bishop, Sydney O., L.R.C.P.Ed., appointed Resident Assistant Medical Officer to the Durham Lunatic Asylum.

Cameron, John, M.B., appointed Medical Superintendent of the Argyll and Bute District Lunatic Asylum, *vice* James Rutherford, M.D.

Chapman, Frederick R., M.B., appointed House-Surgeon to the Hull and Sculcoats Dispensary, *vice* R. Atkinson, L.S.A., deceased.

Cossham, Wm. Raymond, M.B., appointed House-Surgeon and Secretary to the Stourbridge Dispensary, *vice* J. P. Oates, M.R.C.S., resigned.

Cotton, Holland J., M.B., appointed a House-Surgeon to the Edinburgh Royal Maternity Hospital.

Hamilton, Francis G., M.R.C.S.Eng., appointed House-Surgeon to the Queen's Hospital, Birmingham.

Harvey, Charles A., M.D., appointed Resident Apothecary and House-Surgeon to the South Charitable Infirmary and County Hospital, Cork, *vice* W. R. Tolerton, M.B., resigned.

Johnston, John, M.B., C.M., appointed House-Surgeon to the West Bromwich District Hospital.

Leys, P., M.B., appointed House-Surgeon to the Perth County and City Infirmary.

Murphy, James, M.B., appointed Junior House-Surgeon to the Sunderland and Bishopwearmouth Infirmary.

Norman, Conolly, L.K.Q.C.P., appointed Assistant Medical Officer to the East Dispensary, Liverpool.

Rabagliati, Andrea C. F., M.D., appointed Assistant-Surgeon to the Bradford Eye and Ear Infirmary.

Rutherford, James, M.D., appointed Medical Superintendent of the New Asylum for the Barony District of Glasgow.

Scholes, Richard E., M.B., appointed Assistant House-Surgeon to the Stockport Infirmary.

Smyth, Frederick H., M.D., appointed Physician to the Cork Fever Hospital, *vice* H. M. Jones, M.D., resigned.

Swain, Edward, L.R.C.P.Ed., Assistant Medical Officer to the Surrey County Asylum, appointed Medical Superintendent of the Three Counties Asylum at Arlesey, *vice* Wm. Denne, F.R.C.S.Eng., resigned.

Waddell, J. Craig, M.D., appointed an Honorary Medical Officer to the County Dispensary, Norwich.

Scholarships at St. Mary's Hospital.—The scholarships and exhibitions at St. Mary's Hospital Medical School have been awarded as follows: The scholarship in natural science to Mr. W. Pearce; the exhibition in natural science to Mr. F. A. Cox; the extra scholarship in natural science to Mr. C. M. Handfield Jones; the scholarship in classics and mathematics to Mr. H. N. Seager; the exhibition in classics and mathematics to Mr. C. M. Handfield Jones. The examiners were Dr. Cobbold, F.R.S., C. W. Heaton, Esq., Lecturer on Chemistry at the Charing Cross Hospital, and the Rev. Dr. West, Head Master of Epsom College.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Address by the President, Mr. Victor de Méric; also, a paper by him on "Ricord and his School". Dr. Theodore Williams, "On a Case of Ulcer of the Stomach successfully treated by Nutritive Injections".

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Curtis, "Case of Vertigo, simulating Brain-disease, from fatigue of Internal Rectus Muscle of Eye"; Dr. Southey, "Case of Scirrhous Cancer of Pylorus, with Encephaloid Infiltration of Left Lung and Suprarenal Capsules".—Quekett Microscopical Club, 8 P.M. Mr. R. P. Williams, "On cutting Sections of the Eyes of Insects; and on a New Instrument for that purpose".

SATURDAY, October 17th.—Society of Medical Officers of Health, 7.30 P.M. Dr. Letheby (President), "Address on the Estimation of the Sanitary Condition of Communities and the Comparative Salubrity of Towns".

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Z. O.—There are obvious reasons for declining to furnish vaccine matter to unskilled hands. The error appears to have arisen from the carelessness of an individual, and not from any defect in the regulations.

BRONCHITIS, ASTHMA, ETC.

SIR,—I think it is only fair that Mr. Spurgin, who details in a letter to your JOURNAL his great success in the treatment of the above disease by iodide of potassium, should, in reply to his interrogators, name the doses of this medicine he uses in a more specific manner than "the usual doses of the various drugs mentioned". His friend, in a subsequent letter to your JOURNAL, does not carry the matter much further by referring us to Tanner's *Index of Diseases*, where the dose ranges from two to thirty grains! The drug for such diseases has been well known to the profession through Dr. Headlam Greenhow's book; but if Mr. Spurgin have an improved mode of using it to that gentleman, and refuse to say what it is, of what value is his communication to the profession?

October 10th, 1874. I am, etc., INQUIRER.

A BOTANIC SURGEON.

IR,—The following is an advertisement, taken from the *Birmingham Daily Post* of September 29th.

"*Notice.*—The Botanic Dispensary, 34, Worcester Street, Birmingham. (Established more than thirty years.)—Geo. Caldwell, Surgeon (Sole Proprietor), wishes to inform his numerous patients and customers in this district and throughout England, that, having changed his Assistant, he has resumed the management himself, and attends for prescribing and consultation from 10 o'clock in the morning. All orders and consultation letters to be addressed to Geo. Caldwell. He is the only practitioner who can give legal certificates.—Mark the Address: 34, Worcester street (near the bottom of street)."

Mr. Caldwell's name appears in the *Medical Register*, and also in the *Medical Directory.*

Birmingham, Sept. 30th, 1874. I am, etc., M.D. Lond.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

EMIGRATION CERTIFICATES.

SIR,—A short time ago, a labouring man brought to me certain printed documents from the New Zealand Emigration Society, at 7, Westminster Chambers, London, with a request that I would sign a certificate of health, for the information of this Society, respecting himself, his wife and seven children. The following is a copy.

"I hereby certify that I have examined the above-named applicant (and his wife and children); that, to the best of my knowledge and helief, he (she, they) are in good health, free from any bodily deformity or mental defect likely to impair his (her, their) efficiency as labourers. I also certify that he (she, they) have all had the small-pox, or been vaccinated, and is (are) entirely free from any disorder usually considered infectious or contagious."

Putting the applicant off for a few days, I wrote to and received from the "Agent-General for New Zealand" letters, of which the following are copies.

"Sir,—A a man has this morning brought to me your form of certificates for your emigration society, with a request that I should certify, according to a very searching and inclusive form, to the state of health of himself, his wife, and seven children. As this, if honestly done, would involve at least a couple of hours' close work and serious responsibility, I shall be glad to be informed, before I undertake all this, what fee is offered, and to whom I am to look for the same.—I am, etc.—To the Agent-General, etc."

Reply.—"7, Westminster Chambers, etc., September 24th, 1874.—Sir, I have received your letter of the 21st instant, and, in reply, have to state that intending emigrants are themselves required to defray the expense of the medical examination required by the regulations of this office.—I am, etc., for E. J. FEATHERSTON. —To G. S. Symmons, Esq."

As I, in common with some medical brethren, who highly estimate the value of their medical opinion, am inclined to feel my dignity offended by the offer of a 10s. 6d. fee from an insurance office—as so comprehensive a certificate as this Society requires is worth £1 1s., if it be worth a penny—and as it is out of the question that a labouring man, on starvation wages, should be able to pay even the fee of an insurance office, nothing is left for me but to decline the responsibility and honour of serving gratuitously the Agent-General of New Zealand, whose important functions, I judge, are not exercised at the same generous rate as that which the Society offers for the services of medical men. If what is worth having be worth paying for, it is a pity that emigration societies should seek to impose upon those from whom they need valuable assistance, by throwing the burden of the cost upon individuals whose very poverty induces their desire to emigrate, rather than take upon themselves to provide, out of the abundance of their own funds, and in the honourable and straightforward way one expects from men of business, for the due payment for advantages, for the want of which the Society must and ought to suffer, so far as medical men are concerned, if they be not paid for.

Ledbury, October 6th, 1874. I am, etc., G. S. SYMMONS.

READING AT MEALS.

SIR,—To know whether "reading at meals" is injurious to health, and prone to cause indigestion, would be interesting to bachelors, as well as to "Bachelor", who asks the question in your last issue. In my opinion, light reading at meals is not injurious; still I should be sorry to say that, like conversation, it is beneficial and promotes digestion. Unlike conversation, there is that want of tone and cheerfulness derived from the pleasure we have in the company of others. The mere fact of some one being present with us, partaking of the same fare, gives us a certain amount of pleasure and comfort which no book, however interesting, can bestow. The cause of reading being injurious is not so much the diversion of blood from the stomach as the imperfect mastication of food; hence we see the same results to men of business who partake of their meals hurriedly, having only a limited time for each meal, which is altogether insufficient for the proper performance of mastication. When one reads during a meal, he is apt to bolt his food; mastication is then improperly or imperfectly accomplished. The same, of course, often takes place when one does not read during meals, if alone; but, should he be fortunate enough to have an agreeable companion, he is in no hurry to finish, has pleasure in interchanging ideas, masticates his food thoroughly, and thus digestion is promoted.

One, of course, would naturally think that reading would have the tendency to prolong mastication; but the reverse, as a rule, is the case: the eagerness to get to the next part, or finish an interesting part of a story, together with the preoccupation of the mind, causes one to eat with greater rapidity, neglecting the first process of digestion, and forgetting that we are engaged in supplying materials proper for our existence.

Wigan, Oct. 3rd, 1874. I am, etc., WM. BERRY, M.R.C.S.

LEAD-POISONING.

SIR,—In answer to Medicus's question in the JOURNAL of Sept. 17th, I may relate the following. An elderly lady, who had been advised to use a hair-wash to cool her head, came under my notice, complaining constantly of griping pain in the bowels, for which no cause could be assigned. I was induced to look at her gums, when the "blue mark" was visible. A tablespoonful of the wash was directed to be used once a week. The composition was sold for a charitable purpose.

On the subject of lead-poisoning, I may add the following cases, when the amount of the mineral taken up must have been very small.

A blacksmith had suffered for six months from general muscular weakness, dyspepsia, great tenderness over the bowels, and constipation. On examining the gums, the "blue mark" was visible. Here the cause of the disease was at first hidden by the fact of the muscles of the back, loins, and thighs being most paralysed; but on inquiry, I found he was a horse shoer, and that these muscles come more into use. Eight months previously, on only one occasion, he made a little putty with white-lead, and had no recollection of being brought into contact with lead in any other form.

A baker's man complained of cramp and muscular weakness in his back and arms. The blue mark was visible. Two months since, the kitchen where he sleeps, and which is used for the culinary purposes of the family, was painted. Here the muscles of the arm and back are most used in wheeling his cart and often stooping. Both cases recovered under the use of iodide of potassium.

Hastings, October 1874. I am, etc., J. F. B.

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

Nurses for the Sick Poor.

Sir,—From what has appeared in the daily papers, it seems that an association has been formed for the purpose of dealing with the above important subject. Now, sir, without wishing to disparage such a laudable effort, I cannot refrain from appealing to your experience on this important subject, by asking you whether you consider it possible for any private association to undertake and conduct a system of nursing throughout this vast metropolis in anything like a complete and satisfactory manner? Anticipating your answer to be "No", I would add my practical experience (as a district Poor-law medical officer of some years' standing), in confirmation of your expected answer. Take, for example, a case which came under my notice. A pauper patient lay dangerously ill (too ill to be removed without danger to life) in a small dirty room, situated in a court immediately under the shadow of one of our churches. This poor patient's family consisted of a husband and one son, occupying the same room. When in health, the woman worked in the markets. The husband and son had occasional work: however, the three earned but very little, and probably that little was not made the best use of. This poor woman had to be attended and nursed by the boy, the husband being out, "trying to get a job". An aged pauper-nurse was obtained from the workhouse, and she performed the duties of nurse to the best of her "warped" ability, and carried into effect what her ignorance and cunning dictated, such as well watering the wine, drinking the strong tea, cooking the "tit-bits" for herself, etc. Such a state of things could not continue without increased danger to the patient, so application was made for additional assistance at St. John's House, and one of the "Sisters" kindly went to the case at once. Now, the introduction of this skilled nurse at this period resulted in the recovery of this poor woman; but I learned the lesson, that this skilled nurse felt like "the carpenter without his tools" in this wretched sick woman's room. The patient could not be properly washed; there were no means for heating sufficient water; no cooking utensils; therefore, no means for preparing the patient's nourishment. Then, is it proper or healthy to patient or nurse for cooking to go on within a few feet of the sufferer's bed? The coals were kept in a box under the patient's bed. There was no chinaware of any service. Tea, bread, groceries, even money for coals and wood, blankets, sheets, meat, and wine, could be obtained from the workhouse authorities; but in this case there were no domestic utensils for preparing the articles for the patient's use. Then, again, who was to do this work? A "nurse's" duties are not to be mixed up with cleaning a pauper's filthy room, etc.: her duties are confined to the patient's wants and requirements. The Sister could superintend, and the pauper-nurse would make the tea and water the wine, and, if young and strong enough, might scrub the room, and assist in moving the patient and take away dirty linen.

Therefore, to introduce "nursing for the sick poor", without supplying the other innumerable domestic and invalid necessaries, would be like getting a carpenter to build without tools or materials.

Although these remarks apply to one particular case, yet the conditions described may be considered to exist in various degrees in almost every sick poor person's case throughout the metropolis or the country.

What I suggest to meet this national deficiency is, that the subject be taken up by the Government. Let Local Sick Committees be formed in every district, or parish, or union, to co-operate with the existing local authorities; the Local Sick Committee to have at their disposal "stores for the use of the sick", nurses ready to be despatched, etc.; disinfecting and cleansing apparatuses, deodorising materials, and everything else that will save suffering or prolong life, or stay the progress of disease and promote the health of the inhabitants. These Local Committees could look to the present Sick Asylum Committee as their centre or head. Each Local Committee could make weekly returns of the sick to the Central Committee; and the Central Committee could publish a weekly statistical return of the sick, in a similar manner as the return now published of the number of persons in receipt of relief by the statistical department of the Central Board. How much better the health departments could work and discharge their duties with the aid of a system of this kind.

The dispensaries and hospitals should also be called upon to furnish returns to the Central Committee. Thus a vast system of supervision and registration of the sick would be maintained throughout the metropolis or country, the only exception being "private returns from private medical practitioners".

Lastly, district visiting could be more efficiently carried out through these local sick committees, for no sick person need ever escape being visited. You are aware that the relieving officer has to visit all poor receiving out-door relief, including the "sick" lying-in woman. Such visits are objectionable, both to the sufferer and to the relieving officer.

I think I have said sufficient to show that no "private association", however numerous, could carry out a perfect system of nursing the sick poor in London without clashing most seriously with our present Poor-law administration: and without the co-operation of the Poor-law system it would be equally impossible to reach the most deserving cases.

There never has been any complete system for nursing the sick pauper at his home, except only as stated in the case mentioned above. No doubt it is high time that this deficiency in our Poor-law administration was met: and I think the plan I have sketched would answer most completely, and meet all the objects which this new "Association" contemplates, and which, I say, the members will never be able to carry into practice single-handed.

Apologising for troubling you with such a long letter, I am, etc.,

S. Cartwright Reed, M.D., lately, for Eight Years, District Medical Officer West London Union.

London, Sept. 29th, 1874.

Disputed Midwifery Fees.

Sir,—Your correspondent "Institute" will find the information he seeks in your Journal of September 23rd, 1871.

I am, etc.,
T. Standish.

Cradley Heath, near Brierley Hill, Sept. 23rd, 1874.

, We are obliged to Mr. Standish for his note. The information to which he refers was contained in a letter from Mr. R. Gillard, who stated that on two occasions, while in practice in Yorkshire, he brought actions for recovery of midwifery fees. In the first case, he was engaged to attend; but the patient removed from the place, and sent for some one nearer. In the second case, he was not engaged, but was sent for, and was driving to the patient's house, when he was met with a message that another practitioner had been called in. In both cases, judgment was given in his favour; it being decided that the engagement to attend in the one case, and the message in the other, were "retainers".

Notices of Births, Deaths, Marriages, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Mosquito Bites.

Sir,—Mr. W. H. Flower, in his Notes of Experiences in Egypt, grows quite eloquent when talking about mosquitoes. It is very evident he has been well bothered by them. They are certainly exceedingly unpleasant bedfellows to most of people; but, curiously enough, I have lain among thousands of them without any protection, and have not been bitten. However, when at Calcutta, I was severely bitten, but I never felt the bites, only the irritation resulting from them on awakening the next morning. It is about the relief of this irritation that I wish to give a hint to Mr. Flower and your readers. Mr. Flower says: "With respect to the treatment of these stings, there is only one golden rule to be followed—do not rub them or scratch them, otherwise whatever suffering they may entail will be doubled or trebled. The usual applications of salvolatile, eau de Cologne, etc., appear to have but little efficacy." What he remarks about rubbing and scratching is very true; and I have certainly never found the applications he mentions of any use, but I could always allay the itching by rubbing olive oil over each bite, the relief usually lasting from one to two hours, at the end of which time I used to apply more oil if the itching returned: the oil also seemed to relieve the swelling that often ensues from the bites. This remedy is not original; it is very commonly known at Calcutta. I only mention it in order that mosquito-plagued persons may thereby obtain a little relief, and, as a consequence, see strange countries in a more pleasant light.

I am, etc.,
W. J. Barkas, M.R.C.S.Eng., etc.

Newcastle-on-Tyne, Sept. 20th.

On the Antiseptic Treatment of Puerperal Pyæmia.

Sir,—Many practitioners, I should think, must have found out for themselves the use of dilute Condy's fluid as an injection in cases of offensive uterine discharge, soon after they began to use that fluid at all. I myself first used it in this way so long ago as November 1866. I have often mentioned it to my friends, and I know that several lives have been very distinctly saved by it. In a case which occurred about two months ago in the practice of a friend, a primipara, on the sixth day after instrumental confinement, had offensive discharge, shiverings, and a temperature of 105.6. The injection was then freely used every four hours until the discharge was no longer offensive; and, as the intestines had already been well cleared, a quinine and morphia mixture was given. After the first injection, there were no more rigors; the temperature began at once to decline; and the patient recovered in a very few days—a result which my experience of the effect of the permanganate in similar cases enabled me very confidently to predict.

I mention this case especially because the high temperature was recorded; but I can at this moment recall at least four cases of equal or even of apparently greater severity, in which the same treatment had a like successful result, but in which no thermometric observation was made. I find, however, that in the second case in which I used this injection (November 22nd, 1866), the pulse, which had previously been 120, quickly fell to 95, and on the next day to 90.

I am, etc.,
Thomas Churton.

Erith, S.E., September 21st, 1874.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Oct. 12th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer; The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Hampshire Telegraph; The Sheffield and Rotherham Independent; The Standard; The Portsmouth Times; The Armagh Guardian; The Morpeth Herald; The Bradford Observer; The Stroud News and Gloucestershire Advertiser; The Glasgow Herald; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Matthews Duncan, Edinburgh; Mr. R. Barwell, London; Dr. George Johnson, London; Cosmopolitan; Professor Maclean, Netley; Dr. J. Crichton Browne, Wakefield; Dr. David, Grange-on-Sands; Mr. C. Steele, Clifton; Our Paris Correspondent; Mr. A. Godrich, Brompton; Dr. Mackintosh, Chesterfield; Dr. Douglas Powell, London; Dr. Kerr, London; Inquirer; Dr. J. Hughes Bennett, Edinburgh; M.D.Ed.; Sir John Rose Cormack, Paris; Dr. Theodore Williams, London; A. S.; Mr. Flower, London; M.R.C.S.Eng.; Mr. Ashburton Thompson, London; Mr. F. G. Ellerton, Huddersfield; Dr. Procter, York; An Associate; Mr. T. P. Pick, London; Dr. R. C. Shettle, Reading; Mr. W. Fairlie Clarke, London; Dr. Gamgee, Edinburgh; Dr. Heaton, Leeds; The Secretary of the Microscopical Club; Dr. MacCarthy, Wellington, Salop; Mr. Wickham Barnes, London; Dr. Barnes, Carlisle; Dr. Herbert Page, London; Mr. Waren Tay, London; Mr. Churton, Erith; Mr. Ingpen, London; Our Birmingham Correspondent; Dr. Clay Waddell, Norwich; Dr. Moon, Brighton; Dr. James Russell, Birmingham; Dr. Griffiths, Sheffield; Dr. Grigg, London; Dr. Milner Fothergill, London; Dr. Shingleton Smith, Clifton; Mr. Edlin, Plymouth; Our Glasgow Correspondent; Mr. Coates, Clifton; Mr. Llewellyn Thomas, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Lever, Norwich; Mr. Draper, York; Our Dublin Correspondent; Dr. Northcote Vinen, London; Dr. Corfield, London; A Correspondent; Mr. Charles Maclean, Applecross; Dr. Walter Dickson, London; Dr. Richards, Winchester; Dr. Finlayson, Glasgow; Mr. John Leigh, Manchester; Dr. Shepherd, London; Dr. Gibb, Newcastle; Justice; Dr. Symes, Liverpool; Dr. Balthazar Foster, Birmingham; Mr. G. E. Moore, London; Dr. Hall Davis, London; etc.

INTRODUCTORY ADDRESS
ON THE
PROGRESS OF PATHOLOGY.

Delivered at the Opening of the Second Session of the Glasgow Pathological and Clinical Society.

By W. T. GAIRDNER, M.D.,
Professor of the Practice of Medicine in the University of Glasgow.

GENTLEMEN,—The circumstance of your having unanimously re-elected me as President of this Society at the termination of its first session, thereby imposing upon me the duty and the pleasure of occupying the Chair on the present occasion, is one which demands of me not only a grateful recognition of the personal compliment implied in it, but an earnest endeavour to do the best I can to advance the interests and facilitate the business of the Society. I have, therefore, thought that, although elaborate addresses form no part of our business, I might, perhaps, with advantage endeavour to become so far your spokesman as to indicate what appears to me to be our true position—the limitations, ends, and methods of our work, and the objects generally that we may reasonably propose to ourselves among the many scientific associations established here and elsewhere for the cultivation of medicine. If I have any personal qualifications for this task, they certainly do not arise from my having been in any sense whatever the founder of this Society; on the contrary, the Society was planned and manned, and its principles and equipment were in great part arranged even in detail, before I was asked to join it. Moreover, I speak my own perfectly frank personal opinion, when I say that my joining you was not in any way essential to your success, nor was it even a material help in the very excellent way you have struck out for yourselves; it is for me simply a legitimate source of honest pride to think that, after so much had been done, the opinion of the early members turned to me as to one able to assist them in organising their resources, directing their counsels, and presiding over their discussions. I believe that, if I can fulfil this duty aright, I shall be doing what I can to advance the progress of scientific medicine in this great community; that I shall be therein helping, as far as in me lies, to lay a solid foundation for the medical art, which at all times needs such a foundation to protect it from the storms and passions of a false and vain popularity; that I shall be aiding the exertions of this University and medical school to train up a body of medical practitioners imbued with the love of nature and of truth; content, nay eager, to know what can be known, but, for that very reason, careful not to pretend to a shallow and showy *omniscience*, either in regard to the causes or the cure of disease. I will go further, and say that, in my opinion, the *educating* influence of such a society as this is its true *raison d'être*; and, were it not that I believe your society is well constituted for such a purpose, my remaining interest in it, at least as a teacher and professor of medicine, would be but small. I shall proceed to justify these statements, and I trust that, in doing so, I may be able to strike a chord of sympathy with you that will show how far we have agreed hitherto and how far we are likely to work together for good hereafter. If, as I believe, the Pathological and Clinical Society have its roots in a strongly felt need among you; if that need issue from a warm desire to build up medical science upon a foundation of solid fact; to give no quarter to vain imaginations, and to have nothing to do with those current phrases too common both among the public and in the profession, by which a half informed or fashionable sciolism pronounces judgments upon things that are not, and perhaps never can be, known; if, I say, these are the motives that prompted the origination of this Society, then we need not hesitate in believing that it will continue to live and work, even in the far future, when its present members will have ceased to live and to work; and that it will be a permanent source of benefit to our science and our art. For the facts to which we appeal are eternal; the nature which we cultivate, even though it be the nature of disease, is only too likely to remain as long as the causes of disease exist in our great communities; and the fluctuating mass of opinion, which we call medical theory, or doctrine, or dogma, whether right or wrong, can no more disturb the basis on which we repose than the winds of heaven can unsettle the great Pyramid. And there is this advantage in a society which professes to be, and, in respect of its plan at least is, independent of such fluctuations; that in all times it may be expected to exercise a healing influence upon all kinds of error and strife, and loose and vague assertion in professional discussions elsewhere; not by strongly opposing individual errors, but by presenting to all phases of medical doctrine the unerring and underlying basis of natural fact upon which medical science reposes, and without conformity to which no doctrine or dogma can live more than the life of a day.

We are a Pathological and also a Clinical Society; let us consider the meaning of these two expressions, and consider also how far they differentiate us, so to speak, from other associations having the improvement of the medical art in view. We are, in the first place, a pathological society; that is, our object is the investigation of the doctrine, as based upon the phenomena, of disease. But this object of ours is to be interpreted in the light of one of our fundamental regulations; viz., that communications to this society are to be invariably founded on some visible or tangible object, something which may be judged of by the members independently of the opinion of the writer or speaker; something real, objective, and therefore impersonal, around which discussion is to circulate, and from which it is never, as a rule, to be allowed to stray very far. Here is our radical cure for all false and empty discussion; we sacrifice, it is true, something of personal interest, and something also of possible advantage in the statement of various and widely contrasted opinions; but we obtain instead well grounded statements, and, in most cases, the correction of all serious errors at their source. We desire most fully to acknowledge the advantages which the science of medicine has reaped at all times from the most full and free discussion; and most of us are members also of other societies, where every kind of opinion that is not absolutely trivial or inept may obtain such recognition as it deserves. Our objection, therefore, to theories not founded on obvious facts is, not that we are in any way afraid of them, or even that in all cases we contemn them, but simply that our programme is different; that we give the obvious fact the first place, the theory which springs from it the second; that we prefer to discuss the latter in presence of, and by the light of, the former; that we aim more at the verification of the facts presented to us than at the construction or destruction of the opinions attached to them, although we by no means disregard these when they come naturally within the sphere of our business.

The first name of our Society, the "Pathological", especially in connection with the explanation now given of its main object, might seem to indicate that we have sprung from the same wants, and are to be guided by the same methods and regulations, as the great and valuable "Pathological Society of London", which has, almost in the very days in which we are now meeting, completed a quarter of a century of its life and issued the twenty-fifth volume of its *Transactions*. The parallel is not undesigned, nor is it without a considerable element of truth; for our objects and aims, though not our actual accomplishments, have in fact a very great and near resemblance to those of the London society. But there is one difference: the London Pathological Society has adopted the expressive motto, *Nec silet Mors*, and has thereby indicated that the chief, if not the only, objects of its special studies are to be the ultimate results of disease as displayed in the dead body; the wrecks, as it were, of our physical being when hopelessly damaged and beyond repair. In these, it has found an abounding and a most fruitful occupation; it has carried out its motto to the full; the dead relics speak, in its *Transactions*, with voices sometimes of warning, sometimes of encouragement, always, or nearly always, of most wholesome and invaluable instruction to the living. It is not because we despise these voices that we have avoided thus limiting our programme, but because, in a smaller field and with fewer resources, we have been naturally guided, as it were, into a different course; and we have, therefore, adopted the name "Clinical", as showing distinctly that *all* the facts and phenomena of disease, in so far as they admit of demonstration, are within the sphere of our operations. And there is in this view of the matter, if I mistake not, one literally immense advantage. It is not for the benefit of science that the living and the dead aspects of disease should be studied apart; nor are they so studied, in fact, either in the London "Pathological" or in its younger neighbour, and necessary supplement, the "Clinical" Society. We hold the processes of disease to be one and the same in kind, whether they issue in the spoiling of a function, or of an organ, or, as most commonly happens, of both together. And we hold, therefore, that the method of observation is the best which conjoins these two fields of observation, and adds to the study of organic ruins that of deranged vital phenomena.

Hence it is that we have assumed the twofold name of the Glasgow Pathological and Clinical Society. We intend thereby to indicate that whatever can be demonstrated in relation to disease, upon the basis of actual facts and cases submitted to observation, is within the programme of business we have set out for ourselves; and, in order to do justice to that business as far as possible, we have arranged to have in the meantime only a limited number of working members, each of whom, however, may introduce a friend, so that our doors are never closed to any one who has facts to communicate, or from whose knowledge of a special subject we may obtain instruction, or who, on his part, may wish to participate in our researches. It is possible that our regulations and bye-laws may in this respect be modified by future experience; but it has been considered best to begin with a somewhat select body of workers, in order that the interest felt by each in the whole body may not flag, and also that mutual confidence may be established, and that the younger and less experienced members may not be overawed or deterred by mere verbal criticism, or by empty discussion for discussion's sake, such as we have sometimes observed to prevail in larger and more miscellaneous associations. Besides, it has been found, as a matter of practical experience, that, among too great numbers, individual cases and facts lose a portion of their interest; microscopic demonstrations, ophthalmoscopic and other observations requiring time, are very imperfectly followed out, and so a habit is acquired of allowing valuable materials to pass without due examination—a habit which would be dangerous, if not fatal, to what I have called the *educating* influence of the society.

Such is our programme, gentlemen, and such the means by which we propose to carry it out. We meet to-night, by way of experiment for this session, in the new building of the Eye Infirmary, which has been kindly placed at our disposal this evening by the directors. In my opinion, this hall is admirably fitted for our purpose, from its good ventilation and lighting, the abundant supply of water, etc.; but, above all, from the neighbourhood of rooms where microscopes can be arranged, ophthalmoscopic and laryngoscopic observations performed, and where patients can be comfortably accommodated when waiting, and, if necessary, examined apart from others and from all the usual business of the Society.

And now let me ask for a moment, What are the benefits which we may expect, individually and collectively, to reap for ourselves and for the medical science and art, from a diligent cultivation of them in the spirit here indicated? Let us look back a little on the course of medical history, and then attempt to realise in some measure what has been and is the tendency of its progress in our own day.

About a hundred years ago there died, at the great age of 90, a man into whose life-long labours we and all other pathological societies have entered, and whose marvellous industry, erudition, and original genius may be said almost to form the link between the spirit of ancient and of modern medicine. This was John Baptist Morgagni, professor successively in Bologna and Padua, and author of the world-renowned and epochal work, *De Sedibus et Causis Morborum, per Anatomen indagatis.* Previously to this great work (and, in some respects, still long after its publication), the conventional and often repeated formal descriptions of diseases and their symptoms still retained almost exactly the pressure of the mould into which they had been cast ages before by Hippocrates and Galen. Even Sydenham (the "English Hippocrates", as he was called), though greatly enriching the description and classification of symptoms from the wealth of his own great personal experience, had not ventured to ask himself, much less to inform others, if apoplexy, and epilepsy, and continued fever, and gout, and dropsy, and phthisis (to take only a few examples), were anything more than in each case a name applied to a group of symptoms, the causes of which were to be found, if found at all, in some fantastic theory of crudity or imperfect action of the humours, rendering necessary a struggle on the part of nature to throw off the unknown force of evil which oppressed her. Such, at least, was Sydenham's view of all fevers, which he regarded as differing from each other only in the different atmospheric conditions which gave rise to them epidemically. Such also was his theory of gout, which he pronounced, after Hippocrates, to be "a provision of nature for depurating the blood of old men"; and, indeed, his ultimate view of all pathology, as contained in the introductory chapter added late in his life to his greatest work, was to the effect that "a disease is nothing else than an effort of nature, struggling by every means to exterminate the morbific matter, and so restore health to the patient".* This was, in fact, the old humoral pathology, which held its ground almost unchanged for centuries, during which the science of medicine made scarcely any real progress. And no wonder; for, even admitting that the idea of a *materies morbi* had some elements of truth about it, the use that was made of this idea was so little in accordance with strict investigation, that it became an absolutely plastic hypothesis, fitting in with equal facility to any and every description of symptoms. The theory which ascribed diseases, for example, to a "black bile" (which had never been demonstrated), or to acidity, or an alkaline cause, or a "spontaneous gluten" (as Boerhaave has it), is but one remove from the childish and unscientific conception of occult or direct supernatural agencies, which, even in the fifth century before the Christian era, came under the destructive criticism of Hippocrates in the case of epilepsy, the so-called ἱερὸς νόσος, or sacred disease.* All such theories (and the same remarks may be made of the solidist and vitalist theories for the most part, not less than of the humoral) are to be regarded simply as a mode of escape for the mind from the strict control of facts; an "anticipatio naturæ", as Lord Bacon would have said, or rather, a substitution of baseless, or nearly baseless, speculations of the mind for the processes of rigid investigation.

Now, to this method of dealing with the facts and symptoms of disease, the whole spirit and method of the great work of Morgagni are in every point opposed. I do not mean to say, of course, that he never falls into such speculations, or adopts them in his reasoning from the current language and philosophy of his time. But, in all essential points, his work is based upon a far more genuine appreciation of real science than was apparently possible to the partisans either of the humoral or of any other so-called philosophy of disease. The method which he opposes to such generalisations is simply that of careful observation and induction, founded upon almost innumerable dissections and histories of disease observed during life. This method (which he borrowed from Valsalva, along with an immense store of facts as the nucleus of his great work) becomes, in the hands of Morgagni, a veritable Ithuriel's spear or touchstone of truth. It is at once destructive and constructive; it shivers false theories to atoms; it replaces them by new and unlooked for combinations of fact, which of themselves build up a theory, in many cases of permanent and still undiminished value, because it is simply the logical statement of an enlarged and carefully noted experience. Thus, in investigating the *seats* of diseases, Morgagni is not content to record the *coincidence* of a lesion in an organ with the symptoms apparently due to disordered function in that organ. For the first time almost in the history of medical inquiry, he insists on examining every organ, as well as the one suspected to be chiefly implicated; not only so, he marshals with the utmost care, from his own experience and that of his predecessors, all the instances in which the symptoms have existed apart from the lesion, or the lesion apart from the symptoms; he discusses each of these instances with severe exactness in the interest of truth, and only after an exhaustive investigation will he allow the inference either that the organ referred is, or is not, the seat of the disease. And, in like manner in dealing with causes:—a group of symptoms *may* be caused by certain organic changes; it may be even probable that it is so; but, according to Morgagni's method, we must first inquire into *all* the lesions of organs that occur in connection with such symptoms; in the second place, we must know if such lesions ever occur or concur without the symptoms; and, again, if such symptoms can be attributed in any cases to other causes in the absence of such lesions. Only after all these questions are discussed in the light of a large and varied experience, will this great master of pathological reasoning admit any absolute conclusion as to the organic cause of the disease.

It would be easy to give ample illustrations of this admirable method from the work of Morgagni himself; but, as the object of this address is not historical or literary, but practical so far as we ourselves and our work here are concerned, I prefer to look at what Morgagni's pathological and clinical method has done for us in the light not only of his own researches, but of those of his successors. For, from this point of view, all the more eminent moderns, and even the men of our own time, although they work with new means and appliances, amid a flood of new light from physiology and histological anatomy, and amid a science of organic chemistry which it may be said has been created, and extended, and applied, within the present century almost exclusively, are all of them successors and legitimate heirs of Morgagni's labours and method, in so far as they aim at uniting clinical with pathological research by strict processes of reasoning founded on multiplied observations. For it is this method and this spirit that make the essential distinction of the modern-minded physician or surgeon, and that separate him *toto cœlo* from the man whom Molière has depicted for us in caricature—most laughable, and, perhaps, unfair, but still not quite outrageous caricature, if we may trust contemporary letters and documents. The men of the century preceding Morgagni were divided into hostile camps; and it may be said that their discussions, so far as we know them, were generally not about facts, but about remote abstractions or scholastic wire-drawn analogies. Theories of diseased action so remote from evidence, and so comprehensive that it was impossible to get beyond the sweep of their drag-net, occupied all the schools, and gave the tone to the teaching from every professor's chair. "Under which king, Bezonian?" was the question addressed to every pupil and almost to every practitioner, who was almost compelled to be a humoralist, or a solidist, or a vitalist, without exactly knowing why he was so. And the practice was like the pathology; it was either modelled slavishly on custom and tradition, or it broke violently loose from these upon the basis of some outrageous dogma, which did not even assert for itself a birth out of carefully studied evidence, but only out of the dust of the arena, the fierce polemics of contending factions. It was scarcely a very violent caricature of the practice of his day, when Boileau compressed its results as regards the patient into one stinging line—

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* *Observ. Med.*, cap. i, "De Morbis Acutis in Genere."

* See the treatise *On the Sacred Disease*, I, 2; compare also the remarks on the effeminacy of the Scythians in the treatise *Of Airs, Waters, and Places*, 22.

> "L'un meurt vuide de sang, et l'autre plein de séné,"

or even when Molière, out of his unbounded contempt for the whole apparent resources of the art, represents the whole chorus of the faculty as loudly approving the barbarous statement of them by Argan—

> "Clysterium donare,
> Postea seignare,
> Ensuita purgare,
> Repurgare, reseignare, et reclysterizare."

I do not mean to assert that Morgagni himself entirely escaped the influence of these debased traditions of art, or that we his successors have in all cases even now got clear of them; but it may be safely said that the foundations were laid by the Professor of Padua for our escape, and that all the good work done and yet to do, in this direction, has been, and must be, guided by the spirit and method of his work. And in this sense I claim not only the professed and exclusive morbid anatomists, but also, and still more, almost all the greatest physicians and surgeons of our own and the last century, as the legitimate successors of Morgagni and the inheritors of his method of working. Without him, we should probably have waited much longer for Laennec, and might very probably have been at this hour without the stethoscope, and all that it has brought us. Without him, we should almost certainly have been without those means and appliances in all our hospitals, which produced for us in this country Baillie, the Hunters, Richard Bright, Astley Cooper, and a host of others both at home and abroad, who have contributed their stores of experience to an investigation of disease at once clinical and pathological. The pathology of continued fever and the differentiation, upon sure grounds of fact, of its varieties; all the work, in fact, which is represented by the labours of Bretonneau and Louis in France, of Stewart, Jenner, and Murchison in this country, is a direct emanation from the school and method of Morgagni, and has, like the work of the Italian physician, been quietly dispersing a whole dark cloud of visionary pathology and erroneous practice; the old names of febris pituitosa, biliosa, nervosa, putrida, maligna, etc., have disappeared, and order has entered in where there was formerly a chaos; as a consequence of this, our information as to the causes has grown to a reasonable degree of precision, and preventive medicine has obtained access to a realm where the blind fear of contagion was at one time the sole dominating idea. And, although we have as yet no grand curative discovery to boast of in this department, yet who shall say that it is nothing to have studied accurately the natural history of these diseases, and so to have been saved from the errors of Broussaisism on the one side, and Brunonianism on the other? that the whole realm of the continued fevers of this country has been rescued from confusion; that diagnosis has been rendered exact, and statistical conclusions possible, are results which we owe simply to a rigid application, by many and varied minds, of principles derived in great part from the work of Morgagni?

Then cast a glance, if only but for a moment, over the great results which the same clinical and pathological method has worked out for us in the departments of cardiac, renal, cerebral pathology; how, in the memory of men now living, the diagnosis of valvular diseases, embolism, uræmic poisoning, and a host of collateral conditions formerly entirely obscure or misunderstood, has been brought into daylight, and connected securely with the history of the corresponding organic lesions. Think what an advance has been made since the days when delirium tremens was supposed to be a kind of phrenitis, and treated with indiscriminate bleeding; when *apoplexia serosa*, now known to be almost always a sequela of serious, and for the most part irreparable, organic changes in the kidney, was regarded as evidence of congestion of the brain; when valvular disease of the heart was almost sure to pass for asthma, or dropsy, or hæmoptysis, and to be treated without reference to its cause in the central organ of the circulation; when embolism, white softening, calcareous and other degenerations of the arteries, etc., were unknown as the causes of apoplexy or paralysis, and almost all cases of sudden disorder within the brain were regarded as congestive or inflammatory, and treated by bleeding; when attacks of mania, even when occurring in connection with general paralysis or in the dementia of epilepsy, had no other pathology than an inflammation or congestion supposed, and only supposed, to exist; when the delirium of fever had most frequently a like explanation, and was too often met by the inevitable emission of blood. The changes of our point of view in these and many other similar instances we owe to an exact and detailed study of the visible and tangible facts of disease, pursued essentially after the pathological and clinical method initiated by Morgagni; and in every instance the result has been the dispersion of a host of vain imaginations, which had led the minds of men for centuries, and contributed largely to a most irrational practice.

But modern pathology has not contented itself with these triumphs. Its aim now is not only to grapple with the question of the "seats and causes of diseases", in the sense in which Morgagni understood the expression, but to investigate and unfold the more intimate nature of pathological processes; to trace the intricate changes in the tissue-cells which constitute inflammation, tubercle and cancer; to make visible through the microscope, and sensible through a refined chemical analysis, the degenerative processes through which heart, and liver, and kidneys, and arteries, and brain are rendered unfit for the performance of their functions; and here again, to trace out by a more exact and a much more refined examination of symptoms, the relation of the functional disturbance, as observed during life, to the essential organic change. It seems, indeed, as if we were going back again to the old and fruitless research into the proximate causes of disease; but with this difference, that what we seek now is not a mere notion embodied in a word, such as were the alleged causes which occupied so much space in the ancient pathologies, but a positive result of science resting upon detailed evidence, and only open to controversy in so far as exact observation, and carefully performed experiments are liable to vary and to fail even in the most practised hands. But to carry this new science of pathology to its utmost limits, nay, even to appreciate its processes and verify their results, requires no less than that the observer should have spent, and be willing to spend, hours upon hours continuously over his microscope, or in the chemical laboratory, or in the extremely delicate and absorbing work of physiological and pathological experiment. The Cellular Pathology of Virchow, with all the detailed observations and doubtful questions that have arisen out of it; the exquisite researches of Cohnheim and Recklinghausen; the experimental physical and physiological results obtained by Klein and Sanderson, seem to be leading the way to new depths of science that can only be sounded through the absolute devotion of a lifetime to new methods of research. It is here, I confess, that I begin to feel as if my proper place were not exactly to be at the head of this Society. Having served my apprenticeship to some of these advanced methods, in days now long gone by, I am free to confess that the more recent advances have carried the more strictly scientific studies in pathology into regions far beyond my depth. But I have one consolation. If I am too old to teach, or to investigate with success, in these more novel lines of investigation, I am not too old to learn their results from you. In your excellent Vice-President, Dr. Joseph Coats, you have a man admirably qualified by study and capacity, as well as by personal experience, to keep us all from going astray in these untrodden paths. And for myself, though I may fail in these most recondite departments, I may possibly still be allowed to present to you, from time to time, the results of clinical experience, and so to help you to work out your programme of a Clinical, as well as a Pathological Society.

CASE OF MORPHÆA ALBA.*

By JAMES H. STOWERS, M.R.C.S.

EMMA H., aged 21, single, a domestic servant, noticed six months ago a patch of blanched and thickened integument, situated upon the lower third of the anterior aspect of the right upper arm. She thinks that the patch has increased slightly in a downward direction. She suffers no inconvenience from it besides slight aching; there is no pain. She has not noticed any similar patch elsewhere. Situated upon the anterior aspect of the right upper arm, about one inch above the elbow-joint and immediately over the biceps muscle, there is a patch of whitened integument resembling a large wheal. It measures about two inches and a half from above downwards, by an inch and a half in the widest portion from side to side. It is slightly broader near the centre. The patch is of a yellowish white colour, hard, and having a polished appearance. It involves the whole thickness of the integument, and is surrounded by a slightly erythematous blush, which latter was more marked a few weeks since. Sensation is impaired. The surface is not raised above the surrounding tissue; but, on passing the finger across it, it feels denser and more resisting than the healthy skin. There is no desquamation upon the surface. The patient has now been one month under notice, and the condition of the patch remains unaltered.

The treatment has consisted in the application of an unirritating lotion (which has, I think, lessened the surrounding erythematous blush), and a tonic mixture taken three times a day.

The previous history is good.

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* Read before the Shropshire Scientific Branch.

REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

V.—Antagonism between Sulphate of Atropia and Meconate of Morphia.

Notwithstanding the numerous experiments and observations which have been made on this subject, a careful investigation into the evidence which existed previously to the committee's inquiry, could not but demonstrate that nothing positive or certain had been arrived at. Extraordinary pains, therefore, were taken to determine the question whether or not atropia and morphia were antagonistic of one another; and the researches now to be described will be found to add largely to our precise and exact knowledge, as compared with the unfounded and contradictory opinions which have hitherto prevailed.*

The inquiry was divided into three parts: 1. To ascertain as precisely as possible the physiological action of meconate of morphia on the rabbit and on the dog; 2. To ascertain in the same way the physiological action of sulphate of atropia on the rabbit and on the dog; and 3. To ascertain the combined action of the two substances, introduced either simultaneously, or the one before the other, in these animals.

1. *The Physiological Action of Meconate of Morphia on the Rabbit and Dog.*

A. *The Rabbit.*

Experiment 299. Rabbit, weighing 3½ lbs. Cardiac impulses, forty-five in ten seconds. Respirations, twelve in ten seconds. Pupils measured in their transverse diameter, 12-50ths of an inch. Six grains of meconate of morphia in thirty minims of water were injected subcutaneously under the skin of the back. In three minutes, the animal lay on its abdomen and chest, with the hind legs extended and stiffened. The transverse diameter of the pupil was now about 11-50ths of an inch. Respirations, ten in ten seconds. Cardiac impulses, forty-two in ten seconds. In two minutes more, the animal attempted to walk, and it progressed forwards with evident difficulty, owing to the weakness of the posterior extremities. When moving, a slight push was sufficient to turn the animal over on its side. In eight minutes more, there were slight convulsive twitches of the muscles of the back, and the animal was now quite narcotised. If allowed to remain undisturbed, it lay flat, with hind limbs spread outwards, and with fore limbs placed close together so as to support the head. It could still be aroused when pushed about. The respirations now numbered seven in ten seconds, that is, a fall of five since the beginning of the experiment. The cardiac impulses were very feeble, but were regular, and were thirty in ten seconds, that is, a fall of fifteen. The animal remained in this condition for nearly three hours. It then slowly recovered. On the following day, it was apparently quite well.

Experiment 300. Rabbit, weighing nearly 3½ lbs. Cardiac impulses, forty-six in ten seconds. Respirations, fourteen in ten seconds. Pupils 12-50ths of an inch. Nine grains of meconate of morphia in forty-five minims of water were injected under the skin over the left flank. The symptoms described in the preceding experiment took place. Thirty minutes after receiving the dose, the respirations were reduced to six in ten seconds. The cardiac impulses fell to thirty-eight in ten seconds; and the pupil now measured 6-50ths of an inch. The muscular twitchings had increased. After a little time, there were severe spasms, coming on with great suddenness, accompanied by bending backwards of the spine and pawing movements of the fore limbs. These spasms continued for nearly thirty minutes. The animal became weaker. The heart-pulsations were now so feeble that they could not be felt through the parietes of the chest. It died one hour and five minutes after receiving the dose of nine grains of meconate of morphia. When the body was opened immediately after death, the ventricles and the right auricle were still contracting. The right side of the heart was distended and full of dark venous blood. The left side was firmly contracted.

Experiment 301. Rabbit, weighing nearly 3¾ lbs. Received ten grains of meconate of morphia in sixty minims of water. The usual phenomena supervened. While the animal was in the narcotised condition, the sciatic nerve in the right hind leg was quickly exposed, and it was stimulated by a weak induction current obtained from Du-Bois Reymond's electromotor. The nerve responded to the stimulus. The muscles contracted powerfully, either when stimulated directly or when the nerve was touched. A current so weak as to be scarcely perceptible when the electrodes were applied to the tip of the tongue was sufficient to cause contractions. It was also observed that when the electrodes were applied to the nerve, not only the muscles of the limb supplied by the nerve contracted, but frequently those of the other limb, were thrown into movements also. At this stage of the experiment, the animal died in severe convulsions with opisthotonos.

Experiment 302. Rabbit, weighing nearly 3 lbs. 8 oz. Cardiac impulses, forty in ten seconds. Respirations, fourteen in ten seconds. Received nine grains of meconate of morphia. The rabbit having been secured in Czermak's holder, after it was apparently under the action of the meconate, both vagi were exposed in the neck, and each was stimulated by a current of definite strength from Du-Bois Reymond's electromotor. It was found that total stoppage of the heart's contractions followed stimulation for ten seconds. The stimulation was repeated at intervals six times with the same result.

Experiment 303. Rabbit, weighing nearly 3 lbs. 6 oz. Cardiac impulses, thirty-nine in ten seconds. Respirations, fifteen in ten seconds. Pupil, 14-50ths of an inch. It received nine grains of meconate of morphia. When it was in a state of narcotism with slight muscular twitchings, the pupil was measured, and was found to be 12-50ths. The sympathetic nerve on the right side was then exposed. When cut, the pupil at once contracted to 6-50ths of an inch. When the upper end of the sympathetic nerve was stimulated by a weak induction-current, the pupil dilated to 8-50ths.

B. *The Dog.*

Experiment 304. Male black and tan terrier dog, weighing 20½ lbs. Ten minims of a solution of meconate of morphia, containing two grains the meconate, were injected under the skin on the back. In four minutes, it vomited three times. In another minute, it attempted to stand up, and trembled violently. It laid its head down on the floor. In another minute, it lay flat on its abdomen, with the head extended on the fore paws, and the tongue protruded. The pupil was now much contracted. It remained in this condition for half-an-hour. It defæcated a quantity of soft green pultaceous matter. In another half hour, it walked with a staggering gait to the other end of the laboratory, when it lay down and apparently fell asleep. It was roused three hours after the time of receiving the dose of meconate of morphia, and it then took food. It recovered slowly, as for several days it was observed that the hind legs were weak. There seemed to be also, to a slight extent, a loss of co-ordinating power.

Experiment 305. Male Scotch terrier, weighing 14¾ lbs. Three grains and a half of meconate of morphia dissolved in eighteen minims of distilled water were injected under the skin of the back. The phenomena seen in this case were similar to those just described in experiment 304. Thirty-five minutes after having received the dose, the animal was deeply narcotised. The pupils were contracted to a mere point. It could not be aroused in any way. The respirations were slow. The cardiac pulsations were so feeble that they could scarcely be perceived through the walls of the chest. While the animal was in this state, the three following experiments were made as quickly as possible. 1. The sciatic nerve was exposed and stimulated by a weak induction current. It responded to an extremely feeble current. The muscles of the leg also contracted when stimulated directly. 2. The pneumogastric nerve on the right side was exposed in the neck, and stimulated by a weak induction-current. Stimulation was found to arrest the action of the heart. 3. The sympathetic nerve on the right side was exposed and also stimulated by a weak induction current. The heart was then noticed to pulsate more quickly. On cutting the sympathetic and stimulating the cephalic end, the pupil slowly dilated but not to its full size. The animal was then killed. During the operation, there appeared to be complete anæsthesia. On opening the thorax and stimulating the phrenic nerves, the diaphragm contracted powerfully.

From these experiments, the following conclusions regarding the physiological action of meconate of morphia on rabbits and dogs may be drawn.

1. In both animals, meconate of morphia acts on the encephalon

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* For a record of these, given by Dr. Fraser, see *Transactions of the Royal Society of Edinburgh*, vol. for 1868-69, p. 551.

and on the spinal cord, but in the case of dogs the action is more cerebral, while in rabbits it is more spinal.

2. As John Harley states,[*] either delirium or hypnotic effects may be produced. In the experiments recorded, hypnotism was the predominant effect.

3. In the case of rabbits, death is often produced by convulsions.

4. In both cases, while deeply under the influence of the drug, as stimulation of the motor nerves caused muscular contractions, we must hold that the sensibility and conducting power of the nerves are not destroyed.

5. In both cases, stimulation of the vagus in the neck causes stoppage of the action of the heart. Consequently, the vaso-inhibitory fibres in the vagus are not paralysed by meconate of morphia. It is possible, as Harley appears to think,[†] that these fibres may be irritated.

6. Stimulation of the sympathetic in both cases causes dilatation of the pupil. Consequently the sympathetic trunk is not paralysed, and the contraction of the pupil must be owing to the cranial origins of the third nerve being irritated, thus causing contraction of the circular fibres of the iris, governed by that nerve, and consequent contraction of the pupil.[‡]

7. Morphia may affect the action of certain nerves by paralysing the nerve centres from which they issue, but the nerves themselves apparently still retain sensibility and conductivity.

The experiments on the physiological action of meconate of morphia are shortly summarised in the following table.

Table XXIII.—*Showing the Effects of Meconate of Morphia on Rabbits and Dogs.*

No.	Animal.	Weight of Animal.	Dose in grains.	Result.	Remarks.
299	Rabbit.	3 lbs. 8 oz.	6	Recovered	General description of effect of a non-fatal dose
300	,,	,,	9	Died in 65 minutes	General description of effect of a fatal dose
301	,,	3 lbs. 12 oz.	10	Death	Effects of stimulating sciatic nerve
302	,,	3 lbs. 8 oz.	9	,,	Effects of stimulating the vagi
303	,,	,,	9	,,	Effects of stimulating the sympathetic
304	Dog	20 lbs. 8 oz.	2	Recovered	General description of effect of a non-fatal dose
305	,,	14 lbs. 12 oz.	3½	Killed	Effects of stimulating motor nerves, pneumogastric and sympathetic, while animal was narcotised

2. *The Physiological Action of Sulphate of Atropia on the Rabbit and Dog.*

A. *Rabbits.*

The physiological action of sulphate of atropia has already been so fully studied in rabbits, in previous parts of this research (see Table x), that it need not again be entered upon. In small doses of from two to four grains, the only observable symptoms are dilatation of the pupils, quickening of the cardiac contractions, and of the number of respiratory movements. When four to eight grains are given, in addition to these symptoms, there are slight paralysis, more especially of the hind extremities, and a greater increase in the number of cardiac impulses. Above this dose, the action of the heart and lungs becomes embarrassed—the heart's action being much weakened, and there is also a reduction in the rate of respirations. After doses above sixteen grains, death ensues with paralysis, tremors, spasms, and perhaps convulsions.

B. *Dogs.*

Experiment 306. A Scotch terrier, weighing 16 lbs., received the one-eightieth of a grain of sulphate of atropia in ten minims of water under the skin of the back. Before the substance was introduced, the transverse diameter of the pupil was 10-50ths of an inch. Pulse 118, respirations 18 per minute. In four minutes, the pulse had risen to 280, and was very firm to the touch. The pupils were dilated to their full extent five minutes after the dose. The lips, inner surface of the cheeks, surface of the tongue, and the lining membrane of the nose were all dry. In three-quarters of an hour, the pulse fell to 250. The animal appeared to be excited. It ran backwards and forwards, came against the legs of the laboratory table, and sometimes sat down and whined. At the end of four hours after receiving the dose, no effects could be observed.

Experiment 307. Four days after the experiment just related, the same dog weighed 16½ lbs. The pupils measured in their transverse diameter nearly 12-50ths of an inch. Pulse 120, respirations 18 per minute. One-fortieth of a grain of sulphate of atropia in ten minims of water was injected under the skin of the back. The same effects followed as in the last experiment. The most marked were acceleration of the pulse and dilatation of the pupil. The following observations were made.

Table XXIV.—*Showing the Effect of Sulphate of Atropia on the Cardiac Pulsations, Respiratory Movements, and Diameter of the Pupil of a Dog.*

Time aft. dose of Sulph. of Atropia.	Cardiac pulsations per m.	Respirations per m.	Transverse diameter of pupil in parts of an inch.	Time aft. dose of Sulph. of Atropia.	Cardiac pulsations per m.	Respirations per m.	Transverse diameter of pupil in parts of an inch.
1 min.	130	19	.24	12 min.	232	30	.46
3 ,,	140	20	.26	13 ,,	228	30	.48
4 ,,	146	21	.26	14 ,,	226	32	.48
5 ,,	149	21	.30	15 ,,	232	32	.48
6 ,,	152	23	.36	16 ,,	230	31	.48
7 ,,	164	24	.42	17 ,,	231	31	.48
8 ,,	176	28	.48	18 ,,	232	31	.48
9 ,,	190	28	.48	19 ,,	232	30	.48
10 ,,	210	29	.46	20 ,,	233	30	.48
11 ,,	220	30	.46	21 ,,	233	30	.48

Twenty minutes after the dose, the animal was much excited. It sat on its haunches and swayed its head from side to side. Occasionally, it tried to walk, but there was evident weakness of all the limbs, more especially of the hind extremities. On placing the hand over the wall of the chest, the pulsations of the heart could be distinctly seen and felt. The animal continued in this state for nearly four hours, when it began slowly to recover. It appeared to be out of health, and frequently refused food for four days after this experiment.

Experiment 308. A week after the preceding experiment, the same dog weighed 15 lbs. Pupil 12·50ths. Cardiac pulsations 124 per minute. Respiratory movements 17 per minute. One-twentieth of a grain of sulphate of atropia in ten minims of water was injected under the skin of the left loin. The effects observed were similar to those described in experiments 307 and 308; but the weakness and tottering gait in locomotion were more marked. It recovered.

Experiment 309. Five days afterwards, one-tenth of a grain of sulphate of atropia was given. Weight, 15 lbs. The effects were the same, but more marked. The animal recovered.

Experiment 310. Six days afterwards, the same dog received one-fifth of a grain of sulphate of atropia. Weight 15 lbs. In this instance the animal was evidently only partially conscious three quarters of an hour after the experiment. It did not respond readily to its name, and when roused it could scarcely walk. It was unable to sit up. Although the mouth was parched, it would not drink water. It urinated freely. It remained in this condition, with the heart beating so rapidly as to be almost uncountable, and the pupil dilated to its fullest extent. It then slowly recovered.

Experiment 311. Ten days afterwards, the same dog was 13½ lbs. in weight, but it appeared to be out of condition so far as its skin was concerned. The hair was scanty, more especially near the mouth. In this experiment, half a grain of sulphate of atropia was injected under the skin near the nape of the neck. The effects were the same, although much intensified. The animal lay prostrate, with the head resting on the fore paws, the mouth partially open, and the tongue lolling out. It was insensible. It could not be roused by pushing. There were a few convulsive jerks of the muscles of the back and neck which tended to cause the head to move suddenly backwards. It remained in this condition for nine hours, when it slowly recovered. No further experiments were made on this animal, as it remained out of condition for a long time. It completely recovered.

Experiment 312. The fatal dose of sulphate of atropia for a dog being now evidently approached, it was determined to ascertain it, if possible, with more precision. An experiment was accordingly made on a mongrel English terrier, weighing 15 lbs. Three-fourths of a grain of sulphate of atropia in thirty minims of water were injected under the skin over the left flank. The phenomena observed after this large dose were the same as those just described. One hour after the administration of the dose, the animal was prostrate, with pupils widely dilated.

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[*] Harley, *Old Vegetable Neurotics.*

[†] See Harley, "Action on the Pupils", pp. 136-137.

[‡] Harley lays great stress on the action of morphia on the vagus, but his facts do not appear to warrant his conclusions. He says (p. 134): "Derangement of the vagus nerve is the main source of the distress which follows; its sentient branches are blunted, and the lungs no longer invite a flow of blood; its motor branches convey only cramp to the muscular parts; the mechanical suction-power of the chest is depressed, and the lungs themselves tend to collapse. The right heart soon becomes distended; cardiac distress is complained of; the pulse loses force and volume, intermits, and syncope results."

The cardiac pulsations were too rapid to be counted, and they were also so feeble as scarcely to be felt. The respirations were irregular and shallow. There were convulsive twitchings of the muscles, more especially those of the back and neck. The sphincters were paralysed, and the fæces and urine came away frequently. Three hours after the dose, a smart convulsion occurred, the body was bent backwards, the mouth opened widely, the heart suddenly ceased, and the animal was dead.

Experiment 313. In order to establish the point that three-fourths of a grain of sulphate of atropia was a fatal dose for a dog of 14 lbs. or 15 lbs. weight, it was necessary to repeat the experiment in another animal of nearly the same size, and, as far as possible, in the same condition. Three-fourths of a grain of sulphate of atropia dissolved in thirty minims of water were, therefore, injected under the skin over the left shoulder of a young mongrel dog, weighing 16 lbs. After the usual phenomena, the animal died three hours and a quarter after the administration of the fatal dose.

Experiment 314. The following experiment was made to determine the action of sulphate of atropia on the nerves and on the heart. A small terrier of a mongrel breed, weighing 11 lbs., had three-fourths of a grain of sulphate of atropia in twenty minims of water injected under the skin of the back. After the usual phenomena, it was apparently unconscious thirty-eight minutes after the exhibition of the dose. It was then properly secured, and the following experiments were made.

a. As to Effect on the Motor Nerves.—The sciatic nerve in the right hind leg was exposed, and was stimulated by currents from Du-Bois Reymond's electromotor, worked by a Daniell's cell, the zinc surface of which was as nearly as possible twelve square inches. The strength of the current employed was so weak as scarcely to be perceived by the tip of the tongue. The effect was, that, on the application of the electrodes to the exposed nerve, the muscles of the hind limb at once contracted, indicating that the motor nerve-tubes were not paralysed. It was also observed that, on the application of the electrodes to the exposed nerve, the animal moved its whole body. It was impossible to determine whether these movements were purely reflex, associated with no consciousness of pain, or whether the animal really felt pain.

b. As to the Effect on the Pneumogastric Nerve.—The vagi on both sides were exposed as quickly as possible. A pair of electrodes was placed beneath each, and, by means of Pohl's commutator, the electrical arrangements were so made, that either the right or the left vagus could be stimulated alternately, or both at once. The result was, that stimulation of the vagus or vagi produced no appreciable effect on the number of the cardiac pulsations. This will be seen from the following figures, and indicates that atropia, as is now recognised by all physiologists, paralyses either the trunk of the cardiac branches of the pneumogastric nerves, or the intrinsic nerve-centres in the heart with which the cardiac branches are connected. The stimulation was derived from the secondary coil of Du-Bois Reymond's electromotor placed at a distance of fifty *millimètres* from the primary coil, which latter was in connection with a Daniell's cell, the zinc surface of which measured twelve square inches.

TABLE XXV.—*Showing the Effects of the Electrical Stimulation of the Vagi of a Dog under the Influence of Sulphate of Atropia.*

Time P.M.	No. of Cardiac Pulsations per min. on stimulating.				Time P.M.	No. of Cardiac Pulsations per min. on stimulating			
	Right vagus.	Left vagus.	Both vagi.	Neither.		Right vagus.	Left vagus.	Both vagi.	Neither.
1.20	...	...	...	220	2.2	229	229	...	...
1.22	220	220	...	...	2.4	228	229	...	...
1.24	...	...	220	...	2.6	...	228	...	...
1.26	221	221	...	...	2.8	...	...	...	228
1.28	...	...	220	...	2.10	228	229	...	...
1.30	...	...	...	222	2.12	229	229	...	...
1.32	222	221	...	...	2.14	229	229	...	...
1.34	222	223	...	...	2.16	229	230	...	...
1.36	224	224	...	...	2.18	...	...	230	...
1.38	224	224	...	...	2.20	...	...	...	230
1.40	...	...	225	...	2.22	229	229	...	...
1.42	...	...	...	227	2.24	230	230	...	...
1.44	...	...	...	...	2.26	229	229	...	...
1.46	226	227	...	...	2.28	228	227	...	...
1.48	226	226	...	...	2.30	...	...	226	...
1.50	227	226	...	...	2.32	...	...	...	227
1.52	228	227	...	...	2.34	228	229	...	...
1.54	...	...	227	...	2.36	228	228	...	...
1.56	...	...	...	228	2.38	229	229	...	...
1.58	228	228	...	...	2.40	229	228	...	...
2	228	228	...	...	2.42	...	...	...	228

These experiments on dogs are briefly recapitulated in the following table.

TABLE XXVI.—*Showing the Results of Experiments made on Dogs with Sulphate of Atropia.*

No.	Weight of Dog.	Dose of Sulph. of Atropia in grains.	Result.	Remarks.
306 (306–311: Same animal used in these experiments at intervals of 5 or 8 days.)	16 lbs.	One-eightieth	Recovered	Dilatation of pupil; acceleration of pulse
307	16 lbs. 8 oz.	One-fortieth	,,	Ditto, ditto
308	15 lbs.	One-twentieth	,,	Ditto, ditto; locomotion affected
309	,,	One-tenth	,,	Ditto, ditto, ditto
310	,,	One-fifth	,,	Ditto, do., do.; partial unconsciousness
311	13 lbs. 8 oz.	One-half	,,	Ditto, do., do.; convulsive twitches of the muscles
312	15 lbs.	Three-quarters	Death in 3 hours	Usual phenomena; death during a spasm
313	16 lbs.	,,	Death in 3½ hours	Usual phenomena
314	11 lbs.	,,	Death	Effects of stimulating motor and pneumogastric nerves

[*To be continued.*]

ON CONSUMPTION: A FORM OF SEPTICÆMIA.

By WILLIAM MARCET, M.D., F.R.S., of Cannes.,
Late Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

AFTER reading Mr. Erichsen's valuable and suggestive essay on "Hospitalism", I could not help being struck with the similarity which apparently exists between septicæmia and phthisis; and, on becoming subsequently acquainted with Dr. Sanderson's paper in the *Medico-Chirurgical Transactions* for 1873, on the Infective Products of Acute Inflammation, I concluded I had not been the first to whom this idea had suggested itself.

The history of a case of acute phthisis terminating fatally, which came under my observation last winter, recalled to my mind the whole train of symptoms with which we are familiar as resulting from poisoning by inoculation with organic matter in decomposition. I noticed plainly enough, in the present instance, the same high temperature of the body, the same tenacity of the disease, progressing in spite of every treatment, and the same cerebral symptoms occurring near the termination of the disease as in septicæmia. This case was to me extremely, though painfully, instructive.

A tall and robust-looking gentleman, aged about 43, called upon me at Nice, complaining of his throat, but otherwise apparently in perfect health. He had been advised, however, by his physician in London, to repair to the South. His larynx, on examination, was found to exhibit the thick white secretion indicative of the probable presence of phthisis; and the physical signs of the chest showed the existence of a deposit or thickening at the apex of the left lung. There were no crepitation or moist sounds. The application at the time of iodised oil to the larynx gave him, he said, much relief; and, with the exception of my meeting him once when he looked well, I heard or saw no more of him till twenty-six days later, when he was suddenly attacked with hæmoptysis, and I was requested to visit him at once. Hæmoptysis continued in spite of every treatment; and, much to my regret, circumstances prevented his being removed to the hills at the back of Nice. His strength failed at once in a remarkable degree; crepitation rapidly set in; the dulness extended on the left side; and the febrile symptoms became more and more severe. Blood was coughed up in larger quantities; respiration became more hurried and shallow; the voice fell into a whisper; and the last two nights were delirious. Death occurred about a month after the first occurrence of the hæmoptysis.

I account for this case as follows. There was clearly a pneumonic (adenoid) growth in the left lung when the patient first applied to me; how long it had existed there, I cannot tell. He enjoyed a very robust constitution, in consequence of which the nutrition of the new growth had continued for some time unimpaired. Feeling himself at Nice in perfect health, he acted as if there were nothing the matter with him, and apparently became accidentally exposed to some circumstance which lowered his state of vitality. At once the nutrition of the abnormal growth became affected, and decomposition set in; while the capillary vessels involved in the diseased mass, being no longer properly nourished, opened at different places, and let out their contents. Absorption of the decomposing or septic matter now took place at the breach in the pulmonary vessels, whence proceeded the hæmoptysis, and a general poisoning of the body ensued. This now was indeed a case of septicæmia; only the virus, instead of being absorbed from a puncture while dissecting, or an external wound—the result of an amputation, for example—was absorbed from a wound in the pulmonary organs due to the breaking down of tissue, and giving rise to the presence of animal matter in decomposition, acting as a septic material.

I attended the winter before last another case of consumption of a similar kind, although of a more chronic form, and distinctly observed, the night before the patient died, and even, I believe, prior to that time, that the smell of the expectorations, consisting of blood, mucus, and partly coagulated lymph, exhibited a distinct faint fœtor of commencing putrefaction. There was quite enough in the sputa to occasion a septic poisoning; and, indeed, on looking back upon this case, I must come to the conclusion that it was very like one of septicæmia.

In addition to cases of this description, we are now and then called upon to attend patients who, although young and robust in health, and destined, apparently, to a long, useful, and enjoyable life, are struck down by an attack of pneumonia, and carried away by fever with cerebral symptoms in the course of five or six days. Surely these cases exhibit the character of septic poisoning. In such instances, a deposit or new growth rapidly forms in the lungs, which deposit is not nourished as it ought to be in order to remain innocuous, and consequently begins to decompose or putrefy. The body is thereby poisoned by a septic material originating in the lungs, and life under such circumstances cannot be maintained.

Dr. Sanderson, in the article to which I have referred above, begins by explaining what he means by the words "infection" and "infecting", and remarks that there are two kinds of inflammation: one which is mild, healthy, and unattended by general disorder; and another which is accompanied with a state of ill health expressed by such terms as irritative fever, pyæmia, or septicæmia. This last kind of inflammation he calls infecting; and it leads to a discharge of material from the original focus, either by the absorbents or the veins, into the circulation. He further observes: "The conversion of a granulation into an abscess is, I think, perfectly parallel to the change which a granulating surface of a wound undergoes under the same conditions—*i. e.*, when it assumes the unhealthy character.......In the like manner, in phthisis pulmonalis in man, the local condition of the diseased organs not only determines the constitutional state, but is also affected by it; so that the setting up of irritative fever, from whatever cause, determines the softening of parts which would otherwise have remained in a state of chronic induration."

The cause of the irritative fever is, I would beg to remark, important to trace, as the main object of the treatment of phthisis after a deposit has positively taken place in the lungs is to prevent or check this fever by all available means. It is not my intention at present to go into this subject; I shall merely observe that this fever is often caused apparently by circumstances interfering with the nutrition of the abnormal growth, such as those which might be a source of pulmonary irritation or inflammation. The inhalation of cold air, or dust, or a severe chill, or exposure to excessive heat, by producing an abnormal excitement of the various functions, might give rise to a change of this kind, while the respiration of air containing organic matter in decomposition would act by causing a direct septic poisoning.

I am therefore inclined to consider consumption as a disease which may be divided into two (instead of three) very distinct stages; the first stage including the formation of a (so called) deposit or new growth in the lungs; the second stage being one of physical decomposition or incipient putrefaction of this new growth, productive of septic poisoning. The second stage may be acute or chronic, according to the rapidity with which the septic matter is formed, and the degree of strength left in the body to oppose its action. In pneumonia running quickly to a fatal termination, a rapid decomposition of the new growth takes place; whilst in other cases the so-called deposit in the lungs will remain for a considerable period without decomposing or affecting health. I have known, for instance, of a man doing hard work for years as a porter in a London hospital with one of his lungs in a great measure consolidated. Although at times rather short of breath, he considered himself in perfect health.

The mode of treating phthisis I have found to answer best at Nice, when acute febrile symptoms set in, is to obtain at once a change of residence from the sea-side to the hills of Cimiés or St. Philippe; and at Cannes, this winter, I hope to make good use of the pure, bracing, and antiseptic air of the hills at the back of that town. I do not propose to relate the success I have met with from this kind of treatment throughout my practice during the last three winters in the South of France, but can only say that by such means the most uncontrollable hæmoptysis has been arrested; acute febrile symptoms, as a rule, give way in the course of a few days; and the resolution of pulmonary congestion is not long in taking place.

This communication is limited to a few remarks on consumption considered as a septicæmia. Inflammation may, I fully believe, give rise to infecting products without there being actually any new growth. Thus, for instance, inflammation may be attended with the formation of fluids possessed of an infective character; but I cannot help thinking that this property is invariably owing to a commencement of putrefaction, giving these products septic characters.

Mr. Henry Greenway of Plymouth (BRIT. MED. JOURNAL, July 18th, 1874) has obtained favourable results by treating pneumonia and bronchitis with carbolic acid. Is it that carbolic acid acts as an antiseptic in these affections? The alleged success of the treatment certainly appears in accordance with the present views; but this substance should at all times be given cautiously.

I must ask the reader to be so kind as to understand distinctly that no reference is made in this communication to the original formation of tubercle. This, however, may also be due to a septic influence of the air breathed, in accordance with the opinion of Dr. Williams and Dr. C. T. Williams, as stated in their valuable treatise *On Consumption*. My remarks are limited to the influence of tubercle, or adenoid growth undergoing physical decomposition, and thereby acting as a septic poison.

Cannes, October 1874.

CASE OF SPINA BIFIDA (DORSAL), CURED BY INJECTION.

By JAMES MORTON, M.D.,
Surgeon and Clinical Lecturer, Glasgow Royal Infirmary.

ON two former occasions I recorded in the pages of the BRITISH MEDICAL JOURNAL two cases of spina bifida in the lumbar region, both cured by injecting the iodo-glycerine solution, which I employ; and subsequently my friend Dr. Watt, of Ayr, has narrated other two cases treated by the same method and the same liquid, and terminating equally happily.

I have now the pleasure of recording an equally fortunate result in the case of a child presenting a similar deformity, or rather a similar congenital defect in the upper dorsal region.

On June 22nd, Dr. Thomas Smith asked me to see a case of spina bifida with him. The patient, a little girl named Christina Morrison, aged seven weeks, was rather delicate, and did not seem to be thriving as well as the mother could wish. The tumour, which was present when the child was born, was globular in shape, about the size of a peach, not pedunculated, elastic, and semitransparent. It was situated rather high up, being immediately over the seventh cervical and first dorsal vertebræ, and, as a consequence, greater care was required in its treatment. It was said to have burst, and a quantity of a clear fluid to have escaped. The opening seems to have closed; and, the fluid reaccumulating, the swelling became larger than ever. Some time before the case was brought under my notice, the child was presented in the wards of a large surgical hospital, but nothing was attempted in the way of cure or treatment.

June 23rd. The tumour was tapped by means of a fine trocar and cannula, and a quantity of fluid drawn off. At this tapping, a small quantity of the iodo-glycerine solution was injected, and the puncture carefully closed by means of collodion. Besides a little paleness, no appearance of shock was manifested, the child speedily taking the breast. Towards evening the child became restless, and did not sleep during the night. It cried occasionally. As the morning wore on, it became calmer, and then had a very refreshing sleep. The fluid again accumulated, showing that the injection had not fully answered my purpose.

On July 3rd, the tapping and injection were repeated. This time no effect was produced upon the child. It took the breast, and slept soundly and well, and, in fact, behaved as if nothing had happened more than usual. A good deal of serum and blood escaped after the injection, and it was with much difficulty that I could get the puncture closed. This I ultimately managed by means of a piece of cotton rag soaked in collodion.

July 25th. The child was visited to-day, and the mother said that ever since the last operation the child had done well; the tumour gradually diminished in size, and the health of the child was greatly improved. It has complete power over its limbs, and seemed to delight in using them. The mother remarked that the "bairn" never enjoyed such good health. The tumour was about the size of a large strawberry, and of a light purplish colour. It was quite solid. The surface was irregular and puckered up something like a child's scrotum which had been exposed to the cold; or, rather, like a bulky raisin. On August 18th, the child continued well.

This case, and the other four to which allusion has been made, are the only cases which have been subjected to this mode of treatment, and all have proved fortunate. Though the cases are still few, the uniformly successful results are most encouraging, and may induce others to try to increase the number of cures. Success in every instance it would, I fear, be Utopian to expect; but if success become the rule and failure the exception, this mode of procedure may be held to be the safest hitherto made known in the management of such a dangerous congenital malformation.

TWO CASES OF GENERAL PARALYSIS TREATED BY CALABAR BEAN.

By J. CRICHTON BROWNE, M.D., F.R.S.E.,
Medical Director, West Riding Asylum; and Lecturer on Mental Diseases to the Leeds School of Medicine.

CASE I.—George S., aged 40, married, a steam-pipe fitter, from Leeds, was admitted into the West Riding Asylum at Wakefield on October 12th, 1872.

History.—He had been a very pushing and successful man in business. Seven months ago, he was detected by the police attempting to rob a silversmith's shop in broad daylight, and for this offence he was sent to prison for three months. When he came out of prison, he was observed to be very peculiar, and soon after that, having resumed his work, he was found to be sending in bills for absurdly extravagant amounts, demanding £100 for a yard of piping. Latterly, he had committed many foolish and insane acts; and had threatened to murder his wife and other relations. He had always been a sober man, and had never had relations insane.

State on Admission.—The patient was very restless and noisy, and was full of exalted ideas. He said he was an officer in the Royal Navy, and engineer to all the Universities in the world; that God had given him the power of preventing all railway accidents; and that he had invented a machine for recovering lost property from the sea. He was somewhat emotional, and his memory was impaired. He was a tall vigorous-looking man, of sanguine temperament, and well nourished. He had sandy hair and grey eyes; the pupils were somewhat contracted. The muscles of the face were constantly twitching; the tongue was tremulous; and the voice thick and husky. The hand was shaky, and his gait unsteady. Pulse 60, and of fair strength.

Diagnosis.—General paralysis.

Prognosis.—Death within two years.

Treatment.—Extract of physostigma (a fourth of a grain) three times a day.

Progress of Case.—October 14th. He was very extravagant in his ideas; he intimated that he would make Leeds a seaport town, and supply all the world with steam from one boiler. He swayed terribly when he attempted to stand with his eyes closed. He was ordered beef-tea and arrowroot.

October 17th. He was much excited, and sleepless at nights.

November 9th. He had passed through an attack of paralytic furor, accompanied by great violence and destruction. He was now calmer. His face was very tremulous. His ideas were still exalted, and his memory very feeble. Extract of physostigma, in doses of one-third of a grain, was given three times a day.

November 11th. The patient had three attacks of pallor and vomiting yesterday, and three during the night. He was ordered to have his head shaved, and croton oil liniment rubbed in night and morning until pustules appeared; and to have eight ounces of sherry daily. The physostigma was continued.

November 19th. He was decidedly calmer and better.

November 23rd. He had occasional outbursts of excitement, but was on the whole more rational, although he was still under the influence of wild delusions, such as that he was possessed of £1,000,000.

December 10th. The patient was now much quieter. He slept well; the hand was more steady; but the zygomatic muscles and the tongue were still exceedingly shaky.

January 3rd, 1873. Since the last report, the patient had gradually improved. He alleged that his boots were full of gold, that prevented him from lifting his feet properly.

January 12th. When spoken to, he sometimes burst into tears. He complained of pains in his legs. He was sometimes a little restless at night.

February 12th. He was quiet and industrious, acting as a helper in the ward. He was rather stupid, and only answered questions slowly, as if with an effort. He repudiated all delusions, and seemed obscurely to realise his position. The pupils were now of natural size. The twitchings were confined to the lips and eyebrows.

May 20th. He was quite rational and intelligent. He had no tremor, but complained of crampy pains in the legs. He still continued to take extract of physostigma.

July 20th. He was apparently quite well in body and mind.

August 26th. To-day he was discharged recovered.

CASE II.—Annice H., aged 37, married, a housewife from Halifax, was admitted into the West Riding Asylum on July 4th, 1870.

History.—No cause could be assigned for the mental derangement of this woman, which had been coming on slowly for twelve months. She had been brought to the Asylum because she had become excited and violent.

State on Admission.—She was tall and stout; had dark brown hair, and a florid, flushed countenance. The pupils were much dilated, and were very unequal, the left being larger than the right. She talked deliberately, with shaking lips and occasional lapses of words. Her tongue was very tremulous. She walked in an uncertain swaying fashion. Mentally, she was confused and bewildered. She did not know how old she was, where she was, or what day it was. She seemed, however, to be pleased and happy. She was always smiling, and said she never was better in her life.

Diagnosis.—General paralysis.

Prognosis.—Death in a year.

Treatment.—Liberal dietary, and oxide of zinc.

Progress of Case.—November 25th. She had unmistakably gone down the hill. She was much demented; staggered when she walked. The pupils were very unequal. She was ordered to take a fourth of a grain of extract of physostigma three times a day.

February 10th, 1871. She had improved; was clearer in her intellect, and steadier in her muscles.

May 2nd. She vomited yesterday, and early again this morning. When she attempted to get up, she could not stand. On examination, it was found that the left arm was paralysed, and that there was considerable rigidity of the muscles about the shoulder. There was also some paralysis of the face, the left angle of the mouth being drawn up. The pupils were much dilated, the left most so. She could not articulate nor masticate. She was ordered an injection of gruel.

May 3rd. The injection brought away a quantity of fæcal matter, but the paralysis had increased. The left leg and arm were now quite powerless, and swallowing could not be accomplished. Vomiting occurred from time to time, with hiccup. The face was much flushed; the skin hot, and bathed in perspiration. There was considerable photophobia. Sensibility was diminished in the paralysed side. Pulse 110, compressible. She was ordered sinapism to the nape of the neck, and nutrient injections.

May 5th. She was nearly unconscious, and could only be roused with difficulty. The sphincters were paralysed.

May 6th. She was more conscious; she could swallow, but the paralysis of the limbs continued. There was retention of urine, requiring catheterism. A large bed-sore was forming in the sacrum.

May 12th. Power was rapidly returning to the paralysed limbs. The bed-sore was producing some feverishness. She had had three short convulsive seizures.

May 20th. She was becoming restless and talkative, and developing exalted ideas of a broken dilapidated description. She was ordered to resume the extract of physostigma, which had been omitted since the 2nd instant.

May 23rd. She was very noisy and excited, but weak and unable to stand. The muscles of the face were very tremulous, articulation drawling.

June 3rd. She was quite calm, but very fatuous. She did not understand what was said to her.

August 11th. The patient had much improved. She could wash and dress herself, and answer questions. She was still, however, much demented, and her gait was very unsteady. Both pupils were dilated, but the right was now persistently the larger. There was fibrillar tremulousness of the tongue. The bed-sore had almost healed.

August 25th. She had lately been feeling very ill, and had vomited repeatedly after food. The extract of physostigma had been stopped for a few days.

August 29th. She was ordered to resume the physostigma.

September 15th. The patient was gaining ground, and was not so much demented. She could walk with tolerable steadiness.

October 24th. The patient was now very much steadier in her gait and in all her movements. She was able to sew neatly and pretty continuously. There was still tremulousness about the lips when she spoke, and about the tongue when she put it out. She dragged her right foot when walking. The squeezing power of the two hands was equal. She could converse sensibly on ordinary topics, but had exalted ideas, and thought she could repeat the Bible by heart, the fact being that she could not quote a single text correctly. She was now cleanly in her habits.

January 28th, 1872. The patient had had an attack of faintness and vomiting, with great pallor of the countenance. Mentally, she was improving. She continued the physostigma.

May 12th. Improvement went on. She had no exalted ideas. There was only slight tremulousness of the tongue.

December 14th. She was still improving. The general paralysis was undoubtedly arrested.

March 7th, 1873. The patient was somewhat childish in manner, otherwise quite well. She conversed rationally; had no delusions; walked actively and steadily. The pupils were still dilated, but there was no muscular tremor.

May 28th. She was discharged recovered.

THE USE OF THE TOW PESSARY.

By EDWARD COPEMAN, M.D.,

Senior Physician to the Norfolk and Norwich Hospital, etc.

At a time when we are constantly introduced to new instruments of every description, all professing to be improvements upon those before employed (but which do not always come up to the mark of usefulness claimed for them by their inventors), it may be a relief to fall back for a change upon something of a more *simple* character. I think surgeons will, as a rule, admit that the more simple the construction of their instruments the more satisfactory is the use of them, provided only they prove equally effective, although this feeling has been sometimes carried to too great an extent, unless in very practised hands. For instance, the late Mr. Martineau was in the habit of using one lithotomy staff for patients of almost every age, and one gorget for almost all; and these he carried to the hospital in his coat-pocket—a strange contrast to the variety and multiplicity of the instruments now provided for the operation, and borne in handsome mahogany cases.

But the instrument to which I specially allude in this communication is the pessary, of which there is now such an infinite variety; perhaps proving that, where so many different ones are contrived, many of them have been found of little value. My experience of them certainly leads me to the conclusion that but few of them are to be depended upon, and that some are quite useless. The case to which I am about to refer was that of a patient of more than middle age, who applied for relief at the Norfolk and Norwich Hospital, and was under the care of Mr. Crosse. She had had complete prolapsus for a long time, and no kind of pessary was found to be of any use. I chanced one day to be in the ward when Mr. Crosse examined the patient, and he asked me whether I thought an operation he contemplated would be likely to afford relief. The uterus was quite extruded, and, when he returned it into the vagina, the folds of the vagina were so loose and redundant, that he proposed removing a considerable portion on each side, in the hope that, in healing, it might afford effectual support to the uterus and prevent its further extrusion. The matter was left open for further consideration; but I suggested meanwhile that he should reduce the uterus and plug the vagina with some tow which was lying at hand, covered at the top by, and partially enclosed in, a piece of linen greased on the outside to facilitate its introduction. This was effectually done, and, although nearly half a roll of tow was used, it produced no inconvenience either to the bladder or the bowel. It maintained the uterus in its place, and was renewed as often as appeared necessary for cleanliness. Soon the patient was enabled to renew it herself; and, after a week or two, she was discharged from the hospital and advised to continue the same plan. I heard of her some time afterwards, and ascertained that the uterus never came down now, and that she could even dispense with the tow pessary, except when over the wash-tub, at which times she *thought it prudent* to apply it. She had not been so well for years.

This was a remarkable case; the worst, in extent, of prolapsus I have ever seen, and certainly not amenable to any treatment by pessaries, as far as my experience guides me; indeed, almost every kind had been tried and failed. On reflecting upon it, I am inclined to the belief that a tow pessary might in many cases be used with success, and it has the merit of being incapable of doing injury to the parts with which it is in contact. It is easy of introduction; indeed, this patient soon learned to introduce it for herself. Being a compressible material, the tow would not keep the vaginal walls constantly on the stretch, like a solid body, but would rather allow them to contract gradually upon it, and thus prevent their losing their resilient power. The linen with which it is covered at the top and sides affords an easy means of withdrawing the tow for purposes of cleanliness, and the pressure which the tow exercises on the soft parts is equable, and so distributed that it causes no pain in any part with which it is in contact. Moreover, it is not liable to be displaced by any pressure or weight exerted upon it by the uterus itself or by muscular efforts in defæcation, for it clings, as it were, to the walls of the vagina; and this, combined with the resistance of the sphincter, effectually prevents it from being displaced. I am very sanguine in the opinion that a *tow pessary* will be found useful in various cases where pessaries are usually employed; but, at all events, I feel sure it will be found a most serviceable and effective means of removing the difficulties and annoyances of a *complete prolapsus of the uterus.* If others are induced to try it, I hope they will record their experience in the JOURNAL.

SURGICAL MEMORANDA.

ON THE USE OF TANNIC ACID AS A STYPTIC.

Dr. Barnes and his disciples have so plainly demonstrated the value of styptic intrauterine injections in cases of dangerous *post partum* hæmorrhage, that it is well worth trying other astringents than perchloride of iron, which, in spite of its undoubted efficacy, can hardly be said to be absolutely free from danger. In tannic acid we have a perfectly safe non-irritating easily portable remedy, and, moreover, one infinitely more cleanly than iron. Its action may be beautifully seen after abscission of the uvula or excision of the tonsils; when, if there be the least tendency to hæmorrhage, a few slowly swallowed sips of a saturated aqueous solution of tannin will immediately arrest all bleeding and the cut surfaces will be seen glazed over with a thin pinkish coating, which is, in fact, a tannate of albumen. An atomised inhalation of tannin acts almost magically in many cases of hæmoptysis; and there is every reason to believe that an injection, either in stream or spray, of a similar character would act as beneficially in *post partum* hæmorrhage as it does in the instances quoted. If iron or nitrate of silver be applied to a stump or bleeding surface which it is necessary to watch, or where one may have to apply a ligature, their use is very confusing, as a black spongy mass is formed, almost impossible to remove. In such cases, and in all operations on the mouth and nose, or where ligatures are inconvenient or inapplicable, the use of tannin will be found most serviceable. Both my colleague Mr. Lennox Browne and I have used it with advantage after the removal of polypi from the ear, with the further result, so far as our experience goes, of diminishing the chances of recurrence of these very troublesome formations.

Llewellyn Thomas, Weymouth Street, W.

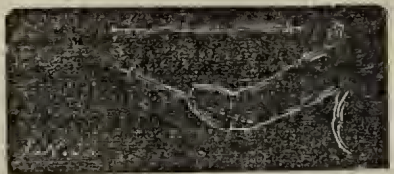
PENILE URINARY FISTULA.

It is generally a difficult matter to heal penile urinary fistulæ; but, when the fistula accompanies a stricture of the urethra, and is so small, that only a few drops of urine pass through it at a time, then, the stricture being cured, the fistula will often get well without further treatment. (Brodie, referred to by Van Buren and Keys.)

In the following case, the fistulæ were as above described; but there was no stricture, and, as the patient was not likely to alter his very irregular habits, I considered that the disease would not leave him without the employment of very active local remedies.

History.—The patient was a young man, aged 25, whose constitution, naturally delicate, had been enfeebled by debauched habits. He had suffered from repeated attacks of gonorrhœa, and, at the commencement of October 1871, became subject to a sore at the base of the frænum. This sore gradually increased, and, upon the 15th of the following month, he submitted to treatment, and the sore soon healed. It reappeared as a sloughing ulcer on January 14th, 1872, and, on January 21st, had attained the size of a sixpenny piece. A solution of tartarated iron (one drachm to one ounce) was used during the first few days with considerable benefit, but the irregular habits of the patient prevented a complete cure.

The following August, he suffered from a severe attack of delirium tremens, and, on February 2nd, 1873, he consented to undergo treatment for urinary fistula. Upon the surface of the cicatrix left by the ulcer were three small openings which communicated with the urethra. These openings (which would not admit an ordinary sized probe) had existed many weeks, and would sometimes be closed by a scab, which would remain for a week or longer and then come away, always being followed by a small quantity of urine. A discharge from the urethra had existed for several months. After ten days of general treatment, I applied a solution of nitrate of silver (one drachm to one ounce) to a sore spot one inch and a half down the urethra, which I presumed was the internal opening of the fistula. This application I accomplished by means of a *porte caustique* of very simple construction.



A gum elastic catheter was cut in half diagonally, the *stilette* being left rather longer than the tube, as in the figure. To the extremity of the wire a piece of cotton wool was attached, which, being saturated with the solution of caustic, was withdrawn into the tube.

Application.—The instrument was passed into the urethra until the end was felt by the patient to touch the inner opening of the fistula. The external end of the piece of catheter was then raised, and the penis bent at the point of disease, so that the opening of the tube covered the sore spot, as in the figure. The caustic could then be applied to the fistulous opening without touching any other part of the urethra. It was also applied to the external openings, and both applications were applied twice a week for four weeks. The discharge from the urethra lessened in quantity every day, and ceased at the end of five weeks, and the outer orifices closed up. I have seen the patient frequently up to the present time (September 1874), and I know that the cure was a complete one.
E. NOBLE SMITH.

OBSTETRIC MEMORANDA.

ON THE USE OF INSTRUMENTS IN OBSTETRICAL PRACTICE.

HAVING been many years in practice, a considerable part of which has been in the obstetrical department, I feel a lively interest in any communications on that subject. And I am glad to find the question of instrumental midwifery brought forward for discussion; and that the old opinion that Nature should be left almost to herself, and that frequently till her powers are nearly exhausted and her efforts become ineffectual, is now giving place to a more rational one. I think we may illustrate the state of Nature under these circumstances by the case of some person who has fallen into a trench, from which he has not sufficient strength to spring out, and who wearies himself by vain attempts; let some one give him his hand, and then the efforts of the distressed person become sufficient when aided by seasonable help. Just so, the uterine action, as *vis à tergo*, becomes effectual with the *vis à fronte* in the shape of a vectis or forceps. This I have often proved; and I could perceive that Nature, if we may personify the idea contained in that term, seems to rejoice and thankfully receive the help afforded, acting with fresh energy. For many years, I have used the vectis almost exclusively, and have generally found it sufficient. Not, indeed, in every difficult case, for in some the forceps is undoubtedly indispensable; but this instrument is often difficult of application, except when the head is in the last axis of the pelvis or nearly so, and then how much better to employ a single instrument which may be applied and used almost imperceptibly to the patient! I believe I have become familiar with it, and would recommend practitioners to endeavour to acquire a dexterous use of it. It may be objected that many lingering cases would have a safe conclusion without instrumental interference. This is granted; but is it not desirable to expedite the delivery, if it can be done with safety and with as little suffering to the patient as possible? Many disorders might have a favourable termination without medical treatment; but we are not inclined to leave them to that chance. One advantage amongst others which the vectis has, is that it can be shifted from one side to the other; that is, from under the right ischium to the other and back; not, of course, between the head and the pubes, for fear of wounding the vesical parts. Very often it will bring the head into the most favourable position, if it were not so before. I do not recollect an instance where the perinæum has been ruptured by the vectis; but I have known it in delivering with the forceps; for the obvious reason that the os externum has been stretched so much more. When I am going to apply the vectis, having the patient as near the edge of the bed as possible, I have a napkin made quite hot, and wrap the vectis in it a few minutes; this is better than calling for a jug of hot water, as is commonly done. Then, anointing the fingers of my left hand, unless the vulva and vagina be sufficiently moist, I introduce them and part of my hand, and slide the curved part of the vectis along the hollow of the sacrum and over the upper part of the head under the right ischium; when I soon ascertain if I gain any power, and make a moderate *traction*, for I do not consider it in the light of a *lever*. This is often responded to by more powerful pains, which, thus assisted, produce a considerable descent of the head. I generally request some female in attendance to make as much pressure as can be borne on the abdomen; giving in some cases ergot; keeping up the traction, and, if necessary, shifting the instrument as before stated; and, if the patient seem fatigued, I withdraw it and let her rest awhile, and then apply it again. The fact is, I consider the vectis, if I may so call it, as an *artificial hand*, accomplishing what one's hand would do if it were possible to employ it.
G. D. R. MACCARTHY, Wrockwardine Wood, Wellington, Salop.

THE INDUCTION OF PREMATURE LABOUR.

WHATEVER conclusions I may have come to as to the best method of inducing premature labour have not been formed from my own experience alone, nor am I prejudiced in favour of any particular method, my sole wish being to ascertain the best method of performing the operation for the safety of the patient. I will give as concisely as possible a few reasons, derived from Dr. Swayne's and my own small experience, for the perhaps erroneous conclusions at which I have arrived.

I find two cases in Dr. Swayne's list (I and IV), and have had two cases of my own, in which "the old-fashioned method" was employed; and I conclude that the results both to mother and child, if compared with the results of cases treated by the "new method", do not suffer by the comparison. Then, seeing that by the "old-fashioned method" we may expect the labour to be completed in from twelve hours to nearly three days, whilst by the new method from two to sixteen days are required for the completion of the labour, then taking into consideration the less manipulation and saving of anxiety to the patient and her friends, as well as saving of time to the practitioner, I conclude the superiority is vastly on the side of the old-fashioned method.

Dr. Swayne objects to rapid labours in such cases, and urges on us that the quickest is not the best; yet surely he cannot think that a labour of twelve hours' duration is so unnaturally rapid as to cause danger either to mother or child, and is it not somewhat inconsistent on his part to object to the early rupture of the membranes in labour, on account of its sometimes tediousness? Yet I venture to say, that the tediousness of the most tedious cases he ever met with from such a cause is as railway speed to Pickford's van, when compared to the tediousness of the sixteen days' labour under the sponge-tent, tangle-tent, etc., method of treatment.

From these and other conclusions, I still fail to see that Dr. Swayne's statistics prove what he asserts, that the new method "is very superior to the old-fashioned method" of inducing premature labour.
STEPHEN CLOGG, Looe, Cornwall.

CLINICAL MEMORANDA.

POISONING BY MUSHROOMS.

MR. SEDGWICK'S case is very similar to that of a patient of mine—a middle-aged lady—who recently selected two or three of the finest from a number of genuine mushrooms. After they had been carefully cooked, she partook of them. In the course of an hour and a half, she was seized with pain in the bowels of a spasmodic character, with severe and well marked tonic spasms chiefly affecting the muscles of the arms, head, and neck, which continued until relief was obtained by an emetic, followed by the administration of brandy and water. For some weeks, a feeling of numbness and stiffness existed in the muscles of the arms and particularly in certain portions of the hand, together with a marked difficulty of articulation, apparently due to some interference with the nervous supply to the tongue.

As, in my patient's and Mr. Sedgwick's case, serious and what might have been fatal effects followed the eating of genuine mushrooms, the subject seems not undeserving of notice.
EDWARD DRUMMOND, M.D., Royton.

DR. BARTON SMITH, House-Surgeon to the Dorset County Hospital, has received, through the German Embassy, the war-medal conferred upon him by His Majesty the Emperor of Germany, for his services to the wounded in the Franco-German war, 1870-71.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

NOTES OF SIX CASES OF HYDATIDS OF THE LIVER TREATED BY PUNCTURE.*

By J. B. Bradbury, M.D., F.R.C.P., Linacre Lecturer on Physic, and Physician to the Hospital, etc.

[*Continued from page* 459 *of last number.*]

Case II.—John Cartwright, aged 29, a tailor, living in Cambridge, was admitted into the hospital, July 17th, 1873, having previously been an out-patient. He stated that twenty years ago he had been under Dr. Paget's care for a lump in the right side of the abdomen just below the umbilicus. This was attended with great pain, which was somewhat relieved after the application of leeches, but it continued painful for several months, and he kept his bed for twelve months. The pain left him with the disappearance of the tumour. A year and a half ago, he first noticed that the right side of the chest and abdomen were much enlarged, his attention being directed to it by a heavy dragging pain in the right side. Since that time, he had suffered from this pain for about a week at a time, and then again had been quite free for the same period. During the past twelve months, the pain had not increased in severity, nor the tumour in size. He had never had jaundice, nor passed any blood in his motions. The tumour was punctured by Dr. Humphry in two places by a needle of Dieulafoy's aspirator, and about one ounce of fluid was withdrawn, which was slightly opalescent, contained much sodium-chloride, a small quantity of albumen, and likewise a few small pieces of hydatid vesicles. Both punctures were made about one inch below the ribs, one to the right and the other to the left of the mammary line.

No bad effects having resulted from the first puncture, on July 20th, the aspirator was again used, and between two and three ounces of fluid withdrawn, which contained no albumen. One of the punctures was made in the axillary line about one inch above the last true rib. It was thought there must be more than one cyst, because (1) the fluid at the second tapping contained no albumen, whereas that at the first did; and (2) after each tapping the fluid ceased to flow when about one ounce had been withdrawn, although the lumen of the needle remained pervious.

On July 22nd, he complained of an aching pain near the puncture between the seventh and eighth ribs, but there was no tenderness on pressure. A slight mottled eruption appeared on the right side of the chest and abdomen. The urine never at any time contained albumen.

July 26th. The rash had entirely disappeared.

July 29th. A puncture was made in the epigastric region, and about one ounce of fluid withdrawn, which contained numerous pieces of hydatid vesicle, a few leucocytes, and much granular matter. A second puncture was made just behind the axillary line and above the tenth rib and about one ounce of slightly opaque fluid withdrawn, which contained a little albumen and much sodium-chloride.

August 2nd. A tympanitic sound which had been audible at the base of the lung behind had disappeared, but there was now a clear tympanitic sound in the axillary line over the lower three or four ribs, and for about one inch and a half in front and behind that line. Breathing on the right side was not quite so clear as on the left, and the percussion-note was duller.

August 5th. The percussion-note was tympanitic over the whole of the liver in front.

August 13th. His bowels had been much constipated of late, and there had been great difficulty in obtaining any evacuation from them, notwithstanding that enemata and aperient medicines had been given. Three motions were passed after taking twelve grains of colocynth and henbane pill.

August 15th. The patient was placed under chloroform, and the needle of the aspirator again introduced, when clear hydatid fluid came away. Two trocars were then introduced just below the margin of the ribs, one three inches and the other six inches from the median line. About twenty-two ounces of decomposing cysts were cleared out of the tumour by the feather-shaft, a solution of carbolic acid being thrown in several times during the operation. The temperature was lower for three days after the tapping than it had been for some time previously. The girth of the abdomen, which before the operation was found to be thirty-eight inches round the most prominent part of the tumour, became afterwards thirty-seven inches and a half.

On August 17th, 18th, and 19th, the cyst was cleared by the feather-shaft, and a solution of carbolic acid thrown into the cavity. On the 20th, the evening temperature was 103 deg. Fahr., and he was in great pain. The feather-shaft was used again on the 24th, 25th, and 26th.

August 28th. The evening temperature was now between 99 deg. and 100 deg. There was considerable discharge from the cyst, some of the fluid being bile-stained.

On September 2nd, he was able to clear out the cyst himself by means of the feather-shaft.

September 6th. He complained of slight cough, with frothy expectoration, which on the 8th was muco-purulent in character.

September 9th. The upper tube had discharged freely during the week. The patient had also with the feather-shaft removed a quantity of suppurating hydatids every morning. On the right side posteriorly there were dulness on percussion below the angle of the scapula, and marked increase of vocal resonance, but the voice was rather muffled quite at the base. Mucous *râles* were heard below the angle of the scapula.

September 12th. During the night, there was a very copious discharge (between three and four pints) of suppurating hydatids. The lower tube came out, but this was of no consequence, as no discharge had come through this tube for some time. The cough was troublesome during the night, the expectoration more copious, streaked with blood and muco-purulent in character. Temperature, 99 deg. Fahr. He was ordered a draught containing two grains of quinine and five minims of dilute hydrochloric acid, in one ounce and a half of water, to be taken twice daily; also a pint of porter and three ounces of sherry.

September 16th. The cough was very troublesome all yesterday afternoon, and the expectoration copious, frothy, and somewhat rusty. About 9 P.M. yesterday, he brought up about half a pint of yellow frothy matter, which looked as if it were coloured with bile. The patient stated he felt as if he should be choked, he could not bring it away fast enough. No hydatids could be detected in the expectorated matter. There was good respiratory murmur in front of the chest, but posteriorly the breathing was a little indistinct; and about one inch above the angle of the scapula it was thought that a friction sound could be heard. The brandy was increased to four ounces.

September 18th. Early this morning a discharge came through the tube of a clear yellow colour, undoubtedly due to bile. This yellow discharge continued through the day. In the evening, he complained of severe pain in the left side on taking a deep breath. A distinct friction-sound was audible with inspiration and expiration to the left of the præcordial region. Here also there was great tenderness on pressure and some dulness on percussion. He was ordered ten grains of Dover's powder at bedtime, and a linseed-meal poultice over the painful part of the chest. Evening temperature 100 deg. Fahr.

September 19th. At four o'clock this morning, the patient commenced to expectorate large quantities of deeply bile-stained fluid, which at times came in such large quantities that he was afraid of being choked. Between 4 A.M. and 9 A.M., he coughed up about twenty-five ounces. He had less pain in the left side. Over the lower part of the space where the friction sound was heard last night, there was now no respiratory murmur, and there was dulness on percussion. Morning temperature, 100 deg. Evening temperature, 102.8 deg. Fahr. Pulse, 150.

September 21st. He had expectorated no bile-stained fluid since the morning of the 19th.

September 24th. At about 5 P.M., he again commenced to cough up large quantities of deeply bile-stained fluid, amounting altogether to between a quarter and a half pint. The house-physician happened to be in the ward at the time. The patient's face was livid, and his breathing much embarrassed. In the course of a few minutes, the lividity passed off, and a tablespoonful of brandy was administered. Breathing continued to be short and difficult. At a quarter to six, he was seen again by the house-physician. The patient had taken another dessertspoonful of brandy, and seemed to be much more comfortable, and the pulse was fairly good. He had brought up a little more of the fluid. At 6.30, the house-physician was sent for, and found the patient dying. The breathing had become much embarrassed, the pupils were dilated, but the pulse could be distinctly felt.

He died within a few minutes from this time.

The highest temperature registered during the last three days of life was 101.4 deg. Fahr.

Necropsy, twenty hours after death.—The lungs did not fully collapse on opening the thorax. On the left side, corresponding to the spot where friction-sound was heard on the 18th, there were some very slight adhesions, and the surface of the lung was covered with red soft lymph. The left lung was first removed, then the right lung, together with the diaphragm and liver, care being taken to preserve the track of the wound which had remained open to the last. Corresponding very much to the situation of the gall-bladder was seen an immense cyst, in the walls of which there was a cartilaginous looking material. The liver seemed tilted over to the left, and the left lobe was so much hypertrophied that, although the liver was of fully normal size, the right lobe had almost disappeared. Springing from the edge of the liver and from its under surface were two immense cysts, adjoining each other, but not communicating. The upper (outer and posterior) one of these, which would hold more than a cricket-ball, contained a part of the thick walled parent cyst, deeply bile-stained, and scarcely any fluid. The wound that remained open to the last communicated with this cyst. The upper part of this cyst was attached to the diaphragm, and corresponding to this point of attachment there was an attachment of the base of the right lung. This latter attachment was torn through, and also a part of the lung which was much broken down, where a slight cavity was seen, and into this there opened a small bronchus. The hole in the diaphragm corresponding to this point was found to communicate with the large cyst. The second cyst, which was also about as large as a cricket-ball, was attached to, but, as previously stated, did not communicate with the first cyst. It was quite hard, and, on being opened, a large mass was seen of hydatids, broken down and deeply stained with bile, some being almost black—the whole forming a large, hard, dryish mass of yellow or blackish *débris*. The right lung generally was fairly healthy. At the base, however, there remained some evidence of the former bronchopneumonia, and some small pieces when placed in water sank. The spleen was of normal size, but very pulpy. The right kidney had several cysts in the cortical portion. The left kidney and the heart were quite healthy.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

[*To be continued.*]

SELECTIONS FROM JOURNALS.

OBSTETRICS.

Treatment of Uterine Fibroid by Hypodermic Injections of Ergotine.—Dr. Theophilus Parvin records (*American Practitioner*, May, 1874) three cases of uterine fibroid, in which marked benefit followed the hypodermic administration of ergot. In all the cases heretofore treated, so far as Dr. Parvin knows, the ergotine has been administered with glycerine, which Dr. J. T. Bowls of Knightstown, Indiana, states to be a needless, and maybe injurious, addition, causing in some cases painful inflammation and threatening abscesses, which was not observed when the glycerine was omitted, and the efficiency of the injection was not found to be lessened.—Dr. A. Reeves Jackson reported to the Chicago Society of Physicians and Surgeons (*Chicago Medical Journal*, June, 1874) five cases of fibrous tumour of the uterus treated by the method of Hildebrandt, and in three of them with decidedly favourable results. Dr. Jackson obtained the best results from a solution prepared according to the following form. "Fifty grains of the extract (Squibb's) are dissolved in two hundred and fifty minims of water, the solution filtered and made up to three hundred minims, by passing water through the filter to wash it and the residue upon it. It represents ergot, grain for minim, free from alcohol or other irritating substance." Latterly, he has used this solution exclusively, and thus far has seen no irritation, pain, or inflammation result from it. He no longer selects the abdomen as the site for injection. Although some parts of the abdominal wall—as about the umbilicus, for example—may be less sensitive to puncture than others, yet all parts of it are more sensitive than the deltoid region; and, inasmuch as the latter is more convenient, and the injections placed there equally efficacious, he now habitually selects the arm in preference to any other part of the body.—Another case was reported to the Society by Dr. J. H. Etheridge, three by Dr. H. P. Merriman, and one by Dr. S. Fisher, in all of which beneficial results followed the hypodermic use of ergotine.—*American Journal of Medical Sciences*, July 1874.

Observations on the Normal Pulse, Respiration, and Temperature of Puerperal Women.—Dr. G. Wilds Linn, late Resident Physician to the Philadelphia Hospital, reports his temperature observations in twenty-four normal puerperal cases occurring in the Philadelphia Hospital. The observations were begun immediately after delivery, and continued for nine days, during which time the patients were kept in bed. The temperature was observed in the axilla at 9 A.M. and 8 P.M. While the cases were under observation, no alcoholic stimulants were allowed. The diet consisted of milk, eggs, beef-tea, and mutton, with coffee or tea, and bread, toasted or plain, with butter. The conclusions deduced from these observations are the following. 1. The normal temperature of the puerperal woman is only about 6 deg. Fahr. higher than that of the healthy human being, if we accept the statement of Wünderlich, that the mean normal temperature is 98.6 deg. Fahr. 2. The normal pulse of the puerperal woman is not more frequent than that found under ordinary conditions in a state of perfect health. 3. The number of respirations is increased, if the statement of physiologists be received, that the number of respirations of the healthy woman ranges from 18 to 20 per minute. 4. The generally received opinion that the secretion of milk is attended by an increase in temperature of one or more degrees, and an increase in the frequency of the pulse of 10 or 12 beats per minute is erroneous. 5. That a temperature of 100 Fahr., or a pulse of 100 per minute in the lying-in woman is indicative of some pathological process which it behoves the accoucheur to discover at once, in order that proper measures may be taken to arrest its development and remove the evil.—*Philadelphia Medical Times*, May 9th, 1874.

Two Cases of Extrauterine Pregnancy, followed by Recovery.—M. Gerpouillot de Menthin reports, in the *Archives de Tocologie* for 1874, a case of extrauterine pregnancy terminating at the end of fourteen years by the expulsion of the entire skeleton of the fœtus by the rectum. The case was that of a woman who, after having presented all the signs of pregnancy, was not delivered at the presumable termination of gestation. The abdomen diminished in size so much as only to present a small development, which was attributed to the presence of an intra-abdominal fibrous tumour. Fourteen years afterwards, after having felt somewhat acute pains in the abdomen, this woman expelled by the rectum all the parts of the skeleton of a fœtus in succession. In two days, she was in her usual state of health. A second case is reported by Dr. Woodbury, and refers to a woman, 30 years old, who, after twelve years of marriage, complained of a very painful tumour situated in the left lumbar region. The neck was large and open. Ergot of rye was given, so as to bring on the expulsion of a product of conception which was supposed to be enclosed in the uterus. A month subsequently, a discharge of blood from the rectum occurred, followed by the expulsion of a child's arm. The next day, the patient felt something in the rectum which she could not expel. It was extracted and found to be the greater part of a fœtus, the placenta, and the umbilical cord which had remained attached to it. The patient completely regained her health.

PATHOLOGY.

Duodenal Ulcer opening into the Abdominal Aorta.—E. Stich reports in the *Deutsches Archiv für Klin. Med.*, 1874, the case of an old woman who in eighteen days died from repeated attacks of hæmatemesis. In the lower transverse portion of the duodenum was a roundish ulcer, at the base of which was an opening that would admit an ordinary probe, communicating directly with the aorta about two inches above the bifurcation. It was slightly plugged with a fresh clot. The inner coat of the aorta showed extensive atheromatous changes; and at the point of perforation was an irregularly round atheromatous ulcer. There was no evidence of aneurismal formation at this point.—*Centralblatt für die Medicin. Wissensch.*, July 18th, 1874.

THERAPEUTICS.

Podophyllin for Acute Rheumatism.—Dr. R. F. Dyer of Ottawa, Illinois, says that about five years ago he discovered that the active principle of podophyllum peltatum promptly relieved the pains in acute rheumatism. He usually follows it with the "alkaline treatment", and, if the pains return, he recurs to the podophyllin. He commences with light doses, combined with Dover's powder at intervals of two to four hours until the bowels are moved very freely several times, and has been frequently astonished at the amount required to effect this. In some cases, he has given it in broken doses for three days before it took effect. The more severe the case, the more it required. While the bowels could be acted upon easily by other remedies, the action of this was delayed. Sometimes two or three evacuations relieved; at others it required eight or ten. After the bowels are evacuated, if relief be not obtained, he continues the use of the medicine in broken doses, not large enough to produce vomiting. If the pain return in two or three days, he repeats the treatment. He has thought that perhaps it was the free purgation that afforded relief, but upon trying active catharsis from other remedies, he is fully satisfied that there is some specific influence exerted by the podophyllin. Having fully tested this remedy in the past five years, he now recommends it to the profession.—*American Journal of Medical Sciences*, July 1874.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 24TH, 1874.

THE MORTALITY OF CHILD-BED.

THE subject of morbid labour and the mortality of child-bed has of late years attracted much attention amongst accoucheurs. A good deal of most valuable scientific information has been obtained, and great progress made.

The treatment of natural labour and of the puerperium has obtained more notice amongst the Americans than with ourselves. With their usual freedom of thought and liberty of action, they have begun seriously to question the time-honoured method of nursing adopted by the monthly attendants, and have attacked in succession all the traditional canons of the lying-in chamber. The plan of keeping a long maintained recumbent position, a binder tightly drawn for some days, the third day's purge, and the whole process of starvation-diet fondly cherished by the Mrs. Gamps, has not, as a rule, obtained much thoughtful consideration from scientific men on this side. Believing, however, as the Americans do, that the highest scientific acquirements are requisite for the proper management of the woman before, during, and after labour, they have refused to accept the conventional child-bed treatment—"a remnant of bygone ignorance"—as an infallible guide, unless it can be supported on scientific and rational grounds.

The able address of the President of the Section of Obstetric Medicine at the last meeting of the British Medical Association has deservedly attracted great attention, and has made thoughtful practitioners reconsider their position and mode of treatment of the parturient woman.

A mortality of nearly one in a hundred during or within six weeks of delivery, without taking into account the number who are maimed for life or rendered sufferers for years, and that amongst persons in the prime of life—the most important personage of the domestic circle—is too startling a fact to pass unheeded. Our own experience induces us to believe that the death-rate is not quite so high; but, if those who are placed *hors de combat* be included, something like one in ninety-five would hardly be too high a proportion. Because parturition is a natural process, it would seem that therefore it is necessary that the woman should undergo a most unnatural treatment during the puerperium. Mr. Gladstone, in his speech at the dinner of the Association in 1873, complimented the profession on now bringing plain common sense to bear on the treatment of disease. It is equally essential for the proper management of the various physiological processes which the body has to perform during its life. The immense difficulties against which the educated scientific practitioner has to contend when beginning practice, if he attempt in any way to break through the routine rules of the monthly nurse, are too many and too great ever to allow him success. He finally succumbs to the village oracle, the trusted confidant of the lying-in chamber, the ignorant mother of twelve. Any progress in the management of the puerperium must be slow work. It would be very interesting to know what proportion of the women yearly confined still keep to the old process of starvation during the first few days after delivery. We believe that 90 per cent. of all women delivered are even now starved. This natural physiological process of parturition, so lowly esteemed by some, so despised by others as to be thought befitting the attention of only ill-trained uneducated midwives, is an act, it should be remembered, rarely repeated more than six times during a period of thirty years, the period of generative activity; and that in this country, the most prolific nation in the world. During late years, the study of gynæcology has revealed many affections due to delivery that were unknown before. When the etiology of uterine and female nervous complaints comes to be more fully understood, we believe that their number will be increased, and the multiplication of the human species in civilised life will be by no means the simple affair of the savage state, where the weaker members die prematurely and never come to sexual activity.

With these few introductory remarks, we call attention to the means employed by Dr. Goodell, the Professor of Diseases of Women at the University of Pennsylvania, at the Preston Retreat for the Treatment and Prevention of Puerperal Diseases. In many respects, they are novel and revolutionary; they are, consequently, the better fitted for opening up of the system at present adopted for the management of the parturient woman. Time and wider experience will prove whether they are founded on correct principles. The author did not intend to publish until he had completed his one thousand cases. As yet, he has only seven hundred and fifty-six. The mortality was only six; three from puerperal causes. The following extracts from his pamphlet seem to be of sufficient interest to justify reproduction.

The institution contains twenty beds, divided amongst four wards, five in each ward. The cubic capacity is about 1,800 feet for each bed. About one hundred married women are delivered yearly. They are admitted, on an average, about sixteen days previously to confinement, and allowed to stay a month; they, however, generally only remain about eighteen days. The air admitted into the rooms is heated in the basement, and ventilation is maintained by a small jet of gas in the old-fashioned fireplace. Outside the hospital, puerperal fever was rife of late years. In Philadelphia and the city of New York, the mortality from puerperal causes (acknowledged as such) has been as high as one in forty-five, amongst all classes alike; if anything, more amongst the wealthier. The wards are used in rotation, one always being kept vacant for about two or three weeks. When a ward is emptied, the doors and windows are kept constantly opened until it is again used; and the whole of the walls, beds, furniture, and floors, are scrubbed down with carbolised soap, and then mopped over with a weak solution of carbolic acid. No water is allowed to be used to the floors until the ward is emptied again. The nurses belonging to the ward go off duty for a week when it is closed, and go through a thorough system of purification. The beds are of straw, which are changed with each patient; the blankets and bedclothes being boiled in water with a small quantity of carbolic acid added. The feathers of the pillows and bolsters are only baked once a year, unless they should become soiled, or have been used by a patient whose convalescence has been retarded. Every woman has a bath at least once a week before delivery. Any indication of enfeebled health is at once treated with quinine, steel, and phosphoric acid. Headaches and sleeplessness are dealt with by warm baths and large doses of bromide of potassium. The bowels are kept relaxed and purged. As soon as labour begins, the patient is placed in a warm bath. The membranes are generally ruptured artificially. The second stage is never allowed to be prolonged, the forceps or vectis being used. The placenta is removed by Credé's method as soon as possible after delivery. The umbilical cord is not tied before it is cut. The blood and gelatin of the cord are "stripped" out as much as can be; and, when bleeding has ceased, it is tied. No binder is placed round the child; nor is the cord touched, but left to lie flaccid and loose on the abdominal walls. It dries up without any smell, and peels off without leaving any raw stump. Out of five hundred infants, not one has had a sore navel or an umbilical hernia.

Ergot is not given as an oxytocic; but, as soon as the head comes to press on the perinæum, a drachm is given. Should the perinæum be torn, it is sewn up at once with silver sutures. A cylindrical compress is applied just about the fundus, and a tight binder applied for twelve hours, when it is removed, and not used again. The patients are confined on a delivery-bed, and wheeled into the ward and removed to their beds. In not a single instance has flooding ever been caused by this muscular movement; if anything, it has rather tended to excite uterine contraction than otherwise. The next day after delivery, the woman slips out and sits in a chair whilst her bed is made; this is repeated once or twice a day until the fourth or fifth day, at which time she may get up, dress herself, and do what she likes. No patient is forced to leave her bed; but the force of example is so great, that most do. After-pains are immediately removed by quarter-grain doses of morphia, given every hour until relief is obtained. If they be very obstinate, ten grains of quinine are given every six hours until the ears ring. It is an invaluable remedy in these cases. There are no bed-pans; vaginal injections are employed. Every woman washes herself daily with carbolised soap and a pad of fine oakum. No nurse, except for some special reason, is ever allowed to wash the woman's person. If the lochia be offensive, she is taken out of bed more frequently, and placed on the chair. Should this not succeed, a vaginal injection is then used.

Whenever the lochia are offensive, or the pulse over 90, or the temperature higher than natural, or three pelvic pains—in fact, when any untoward symptom appears—quinine is given, from six to ten grains every four hours until the ears ring. In addition, for abdominal pains, large doses of morphia are given, and the whole abdomen is painted with iodine, and a poultice applied over it. The canonical purge is never given. As soon as the patient feels strong enough after getting up, she takes a warm bath.

The reason assigned for not using the bed-pan is, that the recumbent position tends to retain in the utero-vaginal tract the putrescent discharges which are recognised by all authors as a great cause of the autogenetic variety of puerperal diseases. Besides, through the swollen condition of the parts, a putrid clot may be retained in any part of the passages; even injection is not able ordinarily to dislodge it. The exertion necessary, and the position in which the woman places herself, in order to use the ordinary chamber-vessel, are a very effectual remedy to rid the uterus or vagina of any clots and putrescent discharges. Again, slipping into the chair two or three times a day is not only an excellent deodorant, but it enables the bed to be thoroughly aired. This, Dr. Goodell believes, is especially necessary for a lying-in hospital.

The writer hazards the assertion that there is a form of puerperal septicæmia not necessarily accompanied by putrid lochia—at least, not appreciably so—but indicated by a high temperature, rapid pulse, complete anorexia, heavy sweats, and, later, by herpes labialis, which steadily resists treatment until the patient is made to get up. This we have seen several times ourselves, and we can bear witness to the truthfulness of the description; and have found that the only treatment consisted in taking the patient out of bed, when, by the second or third day, the whole of the symptoms disappeared. Examination of the vagina, abdomen, and chest, revealed nothing to account for it. When a recumbent position was strictly enforced during the first five days, we found that not only did the discharges become generally offensive, but in every case there was a rise of temperature amounting to about one degree, although the pulse was not materially affected. We came to the conclusion that the retention of the fœtid discharges was the cause, and adopted the system of the bed-chamber with the best results. The dorsal cubitus, Dr. Goodell, as also do many of the American writers, thinks, tends to a passive congestion of the uterus as a whole, and to engorgement of the greatly hypertrophied placenta in particular. The tight binder, continued for some days, is also thought to add to it still more by pressing on the abdominal vessels and retarding the circulation. Milk-fever he ignores, except in the rarest of instances. Purges, he considers, disturb the equilibrium, promote the absorption of septic matter, and act as hæmorrhages do in labour, by increasing the activity of the absorbents. The appearance of septic poisoning on the third or fourth day is no mere coincidence; it is really cause and effect. Two cases the author states that he has seen to be directly due to a purge. Quinine should be always pushed to cinchonism whenever there are any symptoms of septic poisoning. Its power in producing absorption of the uterus, and preventing coagula from becoming detached, is esteemed to be very high.

Dr. Goodell believes that one of the reasons why the statistics of lying-in hospitals can never compete with private practice is, that the former are reliable, the latter not. His experience closely corresponds with Dr. Matthews Duncan's, and with that of all who have taken the trouble to investigate the matter thoroughly. It cannot be too strongly urged that the mortality of child-bed is much higher than what is generally stated, and that the ailments arising from it are of a more serious nature, and more frequent, than most medical practitioners suppose. It is to be hoped that the lying-in charities of London will not always remain the monopoly of nurses and midwives, but will be available for the training of medical students, whose present system of practical instruction is of the poorest description.

MR. STANSFELD ON THE CONTAGIOUS DISEASES ACTS.

The curious mania which prevailed extensively a few years ago among certain excellent people, which was characterised by an inability to accept facts and by an uncontrollable appetite for misrepresenting or misapprehending plain statements in official documents, has, we are sorry to see, attacked Mr. Stansfeld. That right honourable gentleman has lately delivered himself of a diatribe against the Acts, which, in every particular, is simply a repetition of what has been urged over and over again, and refuted over and over again, until reasonable and decent-minded folks have complained loudly of the nuisance. Mr. Stansfeld, of course, began by declaring that the Act of 1866, the one in force, was smuggled through Parliament, as if, by the rules of parliamentary procedure, any Act could be smuggled through either House. So far as the Act of 1866 is concerned, instead of being "smuggled", it was passed in that session on the report of a committee of eminent physicians and surgeons appointed by the Government of the day, which had sat at the Admiralty for many months hearing evidence from over one hundred witnesses, in order that it might advise the Government how to remodel the inadequate Act of 1864 in an effective form. That report, with its minutes of evidence—a most valuable public document—was the basis on which Parliament framed the measure known as the Act of 1866. But the Act is a "smuggled" Act, because it was passed, Mr. Stansfeld says, without previous public discussion. We all recollect the unseemly discussion, or rather, sensational narratives and invectives, delivered at public meetings indiscriminately collected, with which certain opponents of these Acts disgusted impartial people a few years ago. This, we suppose, is the sort of discussion Mr. Stansfeld would like to see precede any legislative enactment whatever. That is, Parliament is no longer to be trusted with power for deliberation, but is simply to register the behests of mob-orators given out at mass meetings of persons of both sexes, utterly devoid of information of the subject on which they are called upon to issue their fiats. Besides being "smuggled", the Acts are, of course, immoral and unconstitutional. As the columns of this Journal are not the place for discussing moral and constitutional questions, we may pass over such subjects, and limit our attention to the evidence afforded by Mr. Stansfeld's speech that he has utterly misunderstood the objects and misinterpreted the results of the Contagious Diseases Acts.

The main argument in Mr. Stansfeld's speech is the failure of the Acts to diminish, as he alleges, certain contagious diseases. Mr. Stansfeld turns to the official reports of the amount of disease in the Army and Navy, and quotes, what is true enough, that, before the Acts were put in force at all, there was year by year a decline in the amount of disease prevailing in the two services; though, as Mr. Stansfeld points out, the rate of diminution was decreasing. He then states that the Royal Commission, "consisting of persons by no means unfavourable to the Act", reported that there was no evidence whatever that the compulsory examination had produced any diminution of disease. There are two errors in this statement. First, the Royal Commission comprised men like Mr. Mundella, known to be determined opponents of the Acts, as well as others warmly disposed in their favour, besides several gentlemen who had no previous inclination to either side. The second error is more important. The commission's report states that it has not been convinced that the diminution of disease which could fairly be attributed to the operation of the Acts was produced by the compulsory examinations. But the report thereby does not imply that the diminution of disease was due to the annual decrease in the entries supposed to be going on independently of the Acts; and this is, we fear, the inference the speaker intended his hearers to draw. Mr. Stansfeld next strengthens his position by insisting on the slight increase of disease in the navy in 1872 over the previous year, without making any allusion to the causes easily detected by a not merely superficial observer, which show but the reverse, approaching to the amount formerly prevalent. In 1863, 104 cases of primary venereal sore occurred among every 1000 sailors in Her Majesty's ships in the home ports. In 1869, there were 59 cases per 1000 (*Royal Commission Evidence*, p. 816).

The reports for the army, Mr. Stansfeld observes, from their construction, show a bias in favour of the Acts in the minds of their compilers. But he must be unaware that *all* the official statements from the War Office relative to the influence of the Contagious Diseases Acts on the health of the soldiers have been compiled by Dr. Graham Balfour, a member of the earliest committee who collected the evidence in 1865 on which Parliament legislated in 1866. Dr. Balfour was at that time so strongly opposed to the recommendations of his fellow committeemen, that he drew up a supplementary report, setting forth his reasons for not agreeing with his colleagues. Now, with this more than bias, this strong conviction of the inexpediency and futility of putting in force any measure similar to that of 1866, Dr. Balfour year after year sat in judgment on and sifted these reports from the army surgeons in charge of the troops quartered in the districts when making up his official reports to the Secretary for War.

Now, though these reports show, as Mr. Stansfeld observes, no material lessening of the milder form of the disease (gonorrhœa), they also prove what Mr. Stansfeld omits to mention, that the graver form of disease (primary syphilis) has diminished to one-half of the amount prevailing in the districts subjected to the Acts before those Acts were in force; while in the districts not included in the Acts, the amount of this disease among the troops, instead of steadily declining, as it had done in the four or five years preceding the operation of the Acts, had regained and surpassed its former ratio. That is, concisely, whereas the number of men sent to hospital with primary venereal sore, from the troops quartered in the districts now subject to the Acts, was 120 per 1000 of strength in 1866, it fell steadily through 1867-8-9, to 54 in 1870; while, in the districts which never have been subjected to the operation of the Acts, the ratio in 1866 was 99, and has risen through 1867-8-9 to 113. It is by passing over such facts as these, that Mr. Stansfeld is emboldened to call the Acts a failure. They were enacted to lessen the loss of military and naval strength, consequent on the amount of sickness from venereal disease, which equalled 1500 soldiers and the entire crew of one of our largest ironclads constantly off duty. They have reduced, in spite of many obstacles, the more important form of disease to one-half.

Mr. Stansfeld next makes a point, as he thinks, of the fact that of 2,100 women who were on the registers kept by the police in 1873, thirty-eight per cent. were found to be diseased when first examined—immigrants into the district; and only nine per cent. diseased of those who were domiciled in the districts, and had undergone previous examination. That is, the proportion of diseased women among the common prostitutes who enter the district, is more than one in every three, and the effect of the Act is to diminish the proportion among those who remain in the district, to one diseased woman to eleven prostitutes.

Having, as he says, done with the hygiene in this convincing fashion, Mr. Stansfeld indulges in some comments about making the "path of vice smooth and easy" for our youth. That the Contagious Diseases Acts have the contrary effect, the official documents which Mr. Stansfeld quotes prove abundantly. In the Police Commissioners' Report for 1873, is a long list of instances in which the police have prevented young girls from being led into vicious courses, and in which others have been rescued from a life of vice when already began. Mr. Stansfeld must be aware that, in the streets of the towns under the Acts, abandoned women are no longer to be seen enticing young men into vice; that the total number of prostitutes has decreased in those towns from 3,400 to 2100, and that the number of houses of ill-fame closed during the years 1865-73 amounted to 940.

Resting our hearty approbation of the Acts on such facts as these, we can only deplore that this extraordinary hallucination should have got possession of a man deservedly eminent in political life, and await anxiously the signs of his returning convalescence.

BLOODLESS SURGERY.

It will be remembered that, in the admirable address delivered by Sir James Paget at the last annual meeting of the Association, attention was pointedly called to the now almost disused practice of blood-letting, and to the effect of loss of blood upon the system. A somewhat similar question—viz., the prevention of hæmorrhage during surgical operations—was discussed at the last meeting of the Clinical Society. We propose now to contrast the conclusions arrived at in both instances.

Sir James Paget described, in happily chosen terms, the routine practice of blood-letting as witnessed by himself forty years ago in conservative Norfolk. All patients who had some discomfort, or who simply desired to observe an old custom, were bled until they fainted. All pregnant women were bled once during pregnancy; and all who suffered from acute symptoms, especially from acute pain, with the ordinary signs of fever, were invariably bled—with immediate relief of the urgent symptoms, which relief followed even "in those who quite certainly were suffering from profound anæmia. Persons who were bloodless, pale, and faint, who yet complained of the continuance of the local symptom, were again and again bled, and again and again experienced temporary relief." Sir James was inclined to think that "there is at present no remedy employed from which the immediate relief derived is so great or so complete as it was from bleeding"; but whether permanent benefit resulted to the patient from the operation, is another question. And, speaking generally of the proceeding, "as if it had been simply a course of vivisection fairly performed, to determine the influence of the loss of blood to the point of fainting upon a large series of healthy persons", he remarked that the cases "proved to his mind, as clearly as anything of the kind could be proved, that the loss of blood up to fainting, and, in some cases, with those epileptiform convulsions that come with the loss of blood, is absolutely harmless". Beyond a few of the patients who suffered from adhesive phlebitis at the wound in the arm, none apparently experienced harm; wherefore the conclusion drawn from the facts was, that "at the present day we undoubtedly overvalue the blood, and estimate too cautiously the loss of it"; and again, in another place, that "we probably take vastly more care than we need of the saving of blood in healthy persons".

But, although such inferences may be correct in the case of healthy individuals, it would appear very doubtful whether they can be entertained in respect of those who undergo serious operations in hospitals. Such, at least, is the teaching which Professor Esmarch of Kiel, the introducer of the bloodless method of operating, endeavoured to inculcate in the paper recently read by himself before the Clinical Society, and printed in last week's JOURNAL. He thought that it was "scarcely possible to speak too often or loudly enough of the influence which this method must exercise on what we call good fortune in surgery"; and, in order to test the value of his method of procedure for the prevention of hæmorrhage, Professor Esmarch compared the results of certain operations on the lower extremity performed by himself in the same hospital during the last six years—that is, for the five years immediately preceding, and for the one year which has elapsed since, the introduction of the method which bears his name. In his own words, "of 88 amputations of the thigh performed in the first five years, there died 37, or 42 per cent. Of 67 amputations of the leg, there died 19, or 28.3 per cent. After the adoption of the bloodless method, there died, of 13 amputations of the thigh, only 1; and of 12 amputations of the leg, only 1; so that the proportion of fatal cases in amputations of the thigh and leg together is brought down from 36 to 8 per cent." True, the numbers upon which these statistics are based are too small for implicit reliance to be placed thereupon; but they would appear to warrant the conclusion that a great diminution in the mortality after operations might be anticipated from the more general adoption of Professor Esmarch's plan of procedure, and that it should not be neglected wherever it is applicable.

Although, therefore, Sir James Paget's experience of blood-letting up to the point of fainting in healthy individuals may be that no harm ever came of it; and although carefully recorded reports of cases which occurred in the former half of the present century may show that ounces and even pounds of blood were taken from comparatively healthy persons almost with impunity, yet it must not be supposed that to those who undergo a serious surgical operation the quantity of blood lost is an equally trivial affair. To a patient who has already lost blood, either from disease or injury, the abstraction of a few more ounces is apparently often a matter of the gravest moment; and the prevention of hæmorrhage will, in consequence of the publication of Professor Esmarch's noteworthy statistics, henceforth engage the more serious attention of careful surgeons in this country. The quantity of blood contained in the limb of a full-sized adult, which may be squeezed out of the vessels of the part by the elastic bandage before amputation, is probably some pounds; and the loss of this quantity may by that simple procedure be saved to the patient. It would be easy to speculate upon the methods in which this extra quantity of blood may be productive of benefit, both by the assistance which it affords in the processes of repair, and by the prevention of blood-poisoning which fulness of the vessels apparently favours. For, as in obstetrical practice, women, who at the time of delivery lose much blood, seem to be especially prone to pyæmia and kindred diseases; so in ordinary surgical operations has it been for a long time surmised that losses of blood tend to an increased rate of mortality. These statistics of Professor Esmarch, as far as they go, affirm the correctness of that opinion, and point unmistakably to the great desirability of avoiding hæmorrhage during all cutting operations. The question which the Professor has broached cannot long remain without additional evidence to confirm or confute his conclusions; and we trust the experience of English surgeons will prove the truth of his declarations, as in that case the death-rate after operations may be greatly diminished.

SEVERAL cases of cholera are reported to have occurred at Gogolin in Upper Silesia.

PROFESSOR WILLIAM TURNER, of the University of Edinburgh, has been appointed lecturer on anatomy and physiology on the Aris and Gale foundation of the Royal College of Surgeons of England.

THE following were the numbers of students attending the medical classes in the undermentioned continental Universities during the recent summer session: Vienna, 963; Würzburg, 518; Leipzig, 502; Munich, 310; Berlin, 299 (exclusive of 160 pupils of the Frederick-William Institute and of the Medico-Chirurgical Academy); Dorpat, 283; Griefswald, 281; Graz, 275; Strasburg, 184; Zürich, 183; Berne, 171; Breslau, 170; Halle, 163; Königsberg, 161; Tübingen, 158; Erlangen, 151; Göttingen, 155; Marburg, 132; Bonn, 126; Freiburg, 117; Innsbruck, 99; Heidelberg, 83; Jena, 78; Basle, 69; Giessen, 65; Kiel, 55; Rostock, 29.

OUR distinguished Associate Dr. Hughes Bennett intends, we learn, to take up his residence in Nice, and there to carry on practice as a physician.

SINCE the end of August, there have been four hundred cases of trichinosis in Linden, a manufacturing suburb of Hanover. The mortality has been about ten per cent.

INCORPORATION OF THE BRITISH MEDICAL ASSOCIATION.

OFFICIAL information has this week been received of the completion of the incorporation of the Association, which has now been duly registered under the Companies Acts of 1862 and 1867. In a short time, members will be furnished with blank forms for signature, in order to constitute themselves legally members of the incorporated body. A formal meeting is to be held at Birmingham on Wednesday, November 4th, in accordance with the Act of 1867, which requires a meeting to be held within four months after the registration.

THE LONDON MEDICAL SCHOOLS.

THE undermentioned numbers of students now actually pursuing their studies at the London medical schools have been registered at the Royal College of Surgeons during the present month. The total number of new entries is somewhat greater than the number registered last year.

	First Year.	Second Year.	Third and Fourth Years.	Total.
St. Bartholomew's	106	85	119	310
Charing Cross	20	17	17	54
St. George's	37	37	52	126
Guy's	85	81	136	302
King's College	25	39	60	124
London	31	35	45	111
St. Mary's	30	18	34	82
Middlesex	31	36	24	91
St. Thomas's	56	54	84	194
University College	82	64	142	288
Westminster	8	11	10	29
Totals	511	477	723	1711

THE SCIENCE OF DISINFECTION.

DR. JOHN DOUGALL (Glasgow) read an interesting paper on this subject in the Health Section at the Social Science Congress in Glasgow. The author first alluded to the confusing diversity of opinion among scientific men on disinfection and disinfectants. Something less uncertain was required than mere conceptions found or adduced from the property of impeding or neutralising putrefaction, or nullifying or masking the smell. Though the ultimate changes produced by putrefaction and fermentation were apparently the same, yet the phenomena of the two processes were as distinct as the symptoms of any two diseases or pathological lesions. This point constituted the foundation of scientific disinfection. A portion of fresh beef infusion grew putrid in twenty-four hours, and at the end of twelve months was still swarming with animalcules, cloudy, and fœtid. Putrefying bodies yield very various offensive effluvia, according to their constitution and the surrounding medium. Putrefaction is characterised by the presence of myriads of animalcules, fœtor, haziness, neutral, alkaline, or faint acid reaction, and slowness of change. Fermentation consists of the presence of torulæ, mycelia, and other cryptogams, mouldy aroma, transparency of fluid, acid reaction, and rapidity of change. Fresh organic matter, which if left alone would putrefy, could be made to ferment by adding to it a portion of a mineral acid. Also, if some acid be added to a putrid fluid, putrescence is arrested and fermentation induced; or, if added in larger quantity, putrescence is arrested and fermentation prevented, while the fluid, instead of being fœtid, actually becomes slightly fragrant. The result is the same when slight excess of acid is mixed with fresh or fermenting organic fluids, but no pleasant odour is produced. Judging from the manifestations of putrefaction and fermentation, it is obvious the latter is harmless compared with the former; while their æsthetics are as different as their influence on health. Putrid matter evolving noxious effluvia for nearly twelve months must be more hurtful than fermenting matter almost odourless and fully decomposed in about four months. By the addition of a small proportion of acid to effete nitrogenous substances, fermentation may be substituted for putrescence, or both arrested, or both prevented. The torulæ and other fungi thus artificially induced are no more hurtful than those that grow in cheese, milk, fruits, etc., and are swallowed with impunity. By the proper application of these principles, typhoid fever and diphtheria, which are considered by many to arise *de novo* from putrid matter, might be prevented, and other zymotic diseases greatly diminished. The prevention of decomposition in organic substances by acids is preferable to causing fermentation, but fermentation is again better than antiseption; because, if antiseption be practised on offending matter containing zymotic poison, the poison is preserved as well as the matter, and thus antiseption is seen to be an admirable contrivance for maintaining a constant supply of zymotic germs for originating future epidemics. The use of a pure antiseptic, such as carbolic acid, as an antizymotic, is a palpable paradox, preservation being practised, and destruction expected. There are no valid grounds, either on logic or fact, to assume, as is constantly but apparently unconsciously done, that, because carbolic acid arrests or prevents putrefaction, it therefore annihilates zymotic poison. Carbolic acid, in every way and with every advantage, totally fails to affect vaccine lymph; while sulphurous, nitric, acetic, and hydrochloric vapour, chlorine, also potash, incorporated with the lymph, render it inert. All true science harmonises; hence this fact might be inferred from the action of a pure antiseptic and of the stronger acids on organic matter. It was lately stated in American medical journals, that so signal was the failure of carbolic acid as a preventive of yellow fever in New Orleans and Mobile, that suspicion was awakened that its effects were positively injurious, and that it helped to spread the disease. Dr. Dougall expressed his preference for chlorine, hydrochloric, and sulphurous acids as antizymotics, and disapproved of using ferrous sulphate for infectious excreta, as it was merely a deodoriser. He gave a summary of the action of acids and alkalies on fresh, putrid, and fermenting matter, and on vaccine lymph; also a classification by Dr. Letheby of the apparent *modus operandi* of disinfecting agents. In conclusion, he said two points were worthy of reiteration. 1. Putrefaction of organic matter may be impeded, arrested, or neutralised, or the odour neutralised or masked, and yet any zymotic poison present in all probability be unaffected, preserved, or only made dormant for a short time. 2. The mineral acids are true disinfectants: they prevent putrefaction; they arrest putrefaction; they transform putrefaction into fermentation; they deodorise; and, what is most important, they are highly antizymotic as regards vaccinia, and therefore, *à priori*, of other contagia and infecta.

HOSPITAL SATURDAY.

SINCE last week, the Hospital Saturday collection has been made. Not merely in workshops, but in the commercial centres of the City, and in the fashionable thoroughfares of the West End, contributions have been solicited; and the total sum as yet received amounts to about £3000. This sum will no doubt be somewhat augmented; for the directors of the movement have determined that Hospital Saturday shall be prolonged for a fortnight. But, even supposing that by all these means £5000 are raised, when the working expenses are deducted, how much will each hospital and dispensary receive? And yet the working classes will have established a kind of right to use the hospitals, instead of applying, as they ought to do, to general practitioners. The more prosperous any artisan is, the more likely will it be that he will have it in his power to say—"I contributed to the Hospital Saturday Fund; I regard hospital treatment as my right." We learn from a circular which we have received, that Dr. Eldridge Spratt, a member of the Hospital Saturday Committee, has summoned a conference to meet at the Hospital for Diseases of the Heart in Soho Square, to consider "the wants of the various institutions giving medical relief to the inhabitants of the metropolis". It is evidently a large-hearted hospital, this Hospital for Diseases of the Heart.

THE REGISTRAR-GENERAL AND THE HEALTH OF LONDON.

FOR many years past, the Registrar-General has placed at the service of the medical officers of health the returns of births and of the causes of death furnished to him weekly by the metropolitan subdistrict registrars for the purpose of his "weekly return". Previously, the returns were, after their first and only use, treated as waste paper. The value of them to the health-officer, nevertheless, is great and indisputable; for, reaching him regularly on the evening of Wednesday, they inform him of the sex, age, occupation, disease, late residence, and date of death, of every person whose death was registered in his district during the week ended on the preceding Saturday. In the absence of a registration of sickness, therefore, they furnish him with the most valuable clue to the prevalence and the locality of particular diseases, especially epidemics. They are indispensable to him, moreover, in preparing the statistics which should invariably be found in his annual report. It follows, that the deprivation of these returns would prove an incalculable loss to the sanitary officer, and a grave public evil. With this we are now, for a time at least, threatened—under what circumstances, we will as briefly as possible explain. Soon after the passing of the Public Health Act, 1872, the necessity of information similar to that contained in the returns was universally felt by the newly appointed medical officers all over the country. No provision for obtaining it had been provided; the sanitary authorities were unwilling, or professed themselves unable, to pay for it; the health-officers were clearly not bound to procure it at their own cost; and it would have been unreasonable to expect the registrars to furnish it without payment. The difficulty was got over in the last session of Parliament by a clause (28) in the Registration of Births, etc., Act, authorising sanitary authorities to pay the registrar for returns of mortality at a fixed rate; viz., twopence for each return, and twopence for each entry in such return. The metropolitan subregistrars thereupon felt aggrieved, it would seem, that the medical officers should obtain without payment information similar to that for supplying which country registrars are paid, and, although their own unique returns are originally made for official use only, addressed themselves to the Registrar-General with a view to obtaining payment for the "secondary use" of the returns for sanitary purposes. The Registrar-General thereupon requested the Society of Medical Officers of Health to bring the subject of such payment before the several Vestries and District Boards of the metropolis. The Society, unable to bind its members, who, moreover, were naturally unwilling to assume an invidious position, pointed out the desirability of any such application being made to the Vestries, etc., by the Registrar-General himself. This step was taken some time ago; the rate of payment suggested being one pound quarterly to each registrar for the first fifty entries in the weekly return, and an additional fee of one penny for each entry afterwards. In the result, nearly all the Vestries declined to accede to the request, mainly on the ground that no special services were rendered by the registrars, and that, if the officers were, as stated, not paid for making the returns, the Vestry was not the proper quarter to apply to in the matter. All this took place some months ago, and the subject was supposed to be at an end until a few days back, when the medical officers were startled by the receipt of a curt letter from the Registrar-General, as follows.

October 9th, 1874.

SIR,—The local authority having refused to adopt my suggestion that registrars of births and deaths be paid for the information which medical officers of health obtained from them in metropolitan subdistricts through the weekly returns made to me, I decline forwarding these returns to you as hitherto.

After the 21st instant, you must arrange with the registrars of births and deaths for supplying you with such information as to mortality as you may require, the local authority paying them for the extra trouble thus imposed on them. Your faithful servant,

(Signed) GEORGE GRAHAM, Registrar-General.

Thus the matter stands at the present time; and, having regard to the impossibility of any new arrangement being made by the local authorities with the district registrars upon so short a notice (supposing such to be really necessary), it follows that, if the Registrar-General carry out his threat, the medical officers will, after the current week, be deprived of the customary weekly return for a longer or shorter period. The returns, we may add, are based upon, and owe their chief value to, the certificates of the cause of death, heretofore given voluntarily and gratuitously by the medical profession. But by the Registration of Births, etc., Act of last session, the giving of a certificate is made obligatory upon the medical attendant in case of death; and we cannot but feel that it is somewhat hard that the passing of this penal measure should be signalised by a step like that under consideration, and which the profession has no longer the power to resent. The returns, we need hardly add, will continue to be made as heretofore by the registrars; but, instead of being utilised for the public benefit as they have been hitherto, and can be in future, by the health-officer alone, they will simply go to swell the waste-paper receipts at Somerset House. The subject, we observe, was mooted at the first meeting of the session of the Society of Medical Officers of Health last week, and referred to the Council for immediate consideration, and such action as the Council may deem necessary. We do not know exactly to what extent the Registrar-General is responsible, whether to the Local Government Board or to the Home Office. We trust, however, that some means may be found of putting a check upon action so arbitrary and so injurious as he has taken in this matter, not without some suspicion of pique. For the rest, the returns are indispensable, and must be had, at whatever cost; and we shall look with interest, therefore, for an early and a satisfactory settlement of the question, on whatever basis it may be framed.

THE MEDICAL SOCIETY OF LONDON.

THE hundred and second session of the Medical Society of London commenced on October 19th. The following resolution was passed with reference to Dr. Anstie, who had been appointed to deliver the annual oration in 1875. "The Medical Society of London desires to record its deep regret in the great loss it has sustained in the untimely death of its orator, Dr. Anstie, whose valuable contributions to science (many of which were made to this Society) tended greatly to advance medical knowledge, and to place medicine and hygiene on a more satisfactory basis than heretofore. The Society directs its secretary to convey its sincere condolence to Dr. Anstie's widow." The President, Mr. de Méric, delivered an inaugural address, and read a paper on "Ricord and his School". Dr. Theodore Williams related "Notes of a Case of Ulcer of the Stomach successfully treated by Nutritive Injections". For the Fothergillian Gold Medal, value twenty guineas, offered annually by the Society, the subject selected for competition in March, 1875, is "The Diseases of the Testicle and the Spermatic Cord"; for March, 1876, "Cataract and its Treatment".

THE PROVIDENT MOVEMENT.

THE establishment of a Provident Dispensary at Kilburn has been under consideration for some time, and we understand that an influential committee, comprising almost all the leading practitioners of the district, has now been formed to carry out this desirable object. A movement of a similar kind is taking place in South Lambeth. At the weekly meeting of the South Lambeth Charity Organisation Committee on October 13th, the following resolution was unanimously carried, and was transmitted to the Committee of the Dispensary which met the same evening: "That this Committee, having heard that a movement is on foot for setting the Brixton, Streatham, and Herne Hill Dispensary upon a provident basis, desires to express its unanimous opinion in favour of Provident against Free Dispensaries—a view which is likewise strongly maintained by the Central Council of this Society". The above resolution having been laid before the Dispensary Committee, a Subcommittee of seven members, including the honorary secretary of the South Lambeth Charity Organisation Committee, was appointed to investigate and report on the whole question of Provident as against Free Dispensaries. Whatever difficulties there may be in carrying on provident institutions in the central parts of the metropolis, in consequence of the disadvantage at which they are placed by the undue competition with the free medical charities, there can be no doubt that in the suburban districts they not only supply a want, but have a fair chance of success. Of this, the dispensaries at Camberwell and Haverstock Hill afford satisfactory proof; and we shall hope in due time to receive equally encouraging reports from Kilburn and Brixton.

SCARLATINA IN LONDON.

AT the weekly meeting of the Hackney Board of Guardians, Mr. Bennett reported that the epidemic of scarlatina was apparently spreading all over London. There were now two hundred and six fever patients under treatment at the Homerton Hospital—seventeen in the new part, and a hundred and eighty-nine in the old part; being a much larger number than he, as one of the managers, could recollect there before. The fever side of the hospital was calculated to accommodate two hundred patients; but, owing to an influx consequent on the prevalent epidemic, the managers had had to utilise the small-pox department of the hospital, which would accommodate one hundred more patients; being a total of three hundred. There were, besides the fever cases, sixteen patients suffering from small-pox. The union medical officers are exercising the greatest vigilance with a view to prevent the spread of the epidemic.

AN ANGLO-SCOTTISH BRANCH.

AFTER a flourishing career of six years, the Cumberland and Westmorland Branch has, our members will have seen, resolved to drop its title, and, by becoming the Border Counties Branch, has enabled members of the profession, residing in the adjoining border counties, to avail themselves of the advantages of a Branch organisation. This change was effected at the last annual meeting, and immediately twenty Scottish members were elected into the Branch. Several more have since intimated their desire to become members, and the meeting at Dumfries, now announced in another column, will inaugurate the extension of the Branch. Dr. Clouston of Edinburgh, a Vice-president of the Branch, has promised a paper "On recent advances in Cerebral Pathology", and the veteran Dr. W. A. F. Browne, ex-Commissioner in Lunacy for Scotland, will contribute a paper on Artificial Alimentation.

THE EFFECTS OF ALCOHOL.

AT the inaugural meeting of the New York Neurological Society, the President, Dr. W. A. Hammond, was authorised to appoint a committee of five members, to investigate in all its relations the influence of alcohol upon the animal economy. In complying with this direction, he has deemed it advisable, in order to obtain fuller and more exact results, to divide the subject among the members of the committee. The members of the committee, and the subjects for research assigned to them, are as follows: 1. Dr. F. D. Lente: The effects of alcohol upon the system in general, and upon the several organs of the body (except those of the nervous system), and its value as a therapeutical agent; 2. Dr. William A. Hammond: The effects of alcohol upon the brain and mind; 3. Dr. T. M. B. Cross: The effects of alcohol upon the spinal cord; 4. Dr. T. Edwards Clark: The effects of alcohol upon the ganglionic nervous system: Dr. F. Le Roy Satterlee: The effects of alcohol upon the peripheral nervous system. It is desired that, so far as possible, the conclusions should be based upon original investigations, and that these should be conducted with every precaution to guard against erroneous results. The object in view is, if possible, to ascertain the truth relative to the influence upon the nervous system of a most important and powerful agent. Authority is given to each member of the committee to associate with himself such medical gentlemen in or out of the Society, as he may consider capable of acting as collaborators.

SCOTLAND.

A COMMITTEE has been formed in London for the purpose of presenting a bust of Dr. Hughes Bennett to the University of Edinburgh.

GLASGOW ROYAL INFIRMARY.

DR. DUNLOP AND DR. HECTOR CAMERON have been elected surgeons of this Infirmary in place of Professors Macleod and Buchanan; and Drs. Charteris and Wood Smith, physicians, in place of Professors Gairdner and M'Call Anderson, the services of the four retiring professors having been required for the Western Hospital. The physicians of the Royal Infirmary are now Drs. M'Laren, Scott Orr, Perry, Charteris, and Wood Smith. The surgeons are Drs. Eben Watson, Morton, Dewar, Dunlop, and H. C. Cameron.

IRELAND.

DR. GREER of Newtownards died last week, at the early age of 27, from a malignant attack of scarlatina. Dr. Greer had but lately been appointed Medical Officer to the Kircubbin Dispensary District, and contracted the disease in the discharge of his professional duties.

CATHOLIC UNIVERSITY OF IRELAND.

IN opening the commencement of the Catholic University, Mgr. Woodlock stated that 242 students had matriculated within the past year. Of these, seventy-five entered in Dublin in Medicine, and thirty had attended lectures in Arts. Dr. Woodlock concluded by pointing out the advantages of the University as supplying an antidote to the teachings of Professor Tyndall and the materialists.

THE DUBLIN MEDICAL SCHOOLS.

THE session of the medical school of the Royal College of Surgeons of Ireland will open on October 26th with an address by Dr. Reynolds; and that of the Catholic University with an address by Dr. Hayden. On November 2nd, introductory addresses will be given at the Ledwich School of Medicine by Mr. Kelly; at the Meath Hospital by Mr. Ormsby; at St. Vincent's Hospital by Dr. Mapother; at the Mater Misericordiæ Hospital by Dr. Hughes; and at the Richmond Hospital by Mr. Thomson. There will not be any introductory lecture at the Adelaide, Mercer's, Dr. Steevens', City of Dublin, or Jervis Street Hospitals; nor at Trinity College, Carmichael, or Dr. Steevens' Medical Schools.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS.

AT a meeting held on October 14th, the following were selected as office-bearers for the ensuing year. *President:* James F. Duncan. *Council:* J. H. Benson, J. M. Finny, Thomas Fitzpatrick, Thomas W. Grimshaw, Thomas Hayden, Henry Kennedy, James Little, Arthur W. Foot, John W. Moore, Christopher J. Nixon, John M. Purser, Gerald F. Yeo. *Honorary Secretary:* George F. Duffey.

HEALTH OF DUBLIN: QUARTERLY REPORT.

THE Registrar-General's Report for the quarter ending October 3rd shows that the number of births registered amounted to 2,232, and the deaths to 1,897, affording a mortality equal to 24 per 1,000. The deaths from zymotic diseases came to 540; scarlet fever proving fatal in 250 instances, or 1 in every 7.6 of the total deaths resulted from this disease. For the last twelve months, scarlet fever has been epidemic in Dublin; and, during that period, 747 deaths have been caused by it—*i. e.*, 9.2 per cent. of the total deaths registered. The deaths from this plague were distributed during the four quarters as follows: in the last quarter of 1873, 151; first quarter of the present year, 170; second quarter, 176; and third quarter, 250; showing that the epidemic has been steadily increasing, instead of diminishing. Fever produced 77 deaths; measles and croup, 23 deaths respectively; diarrhœa, 101; whilst convulsions proved fatal in 148 instances. To pulmonary consumption, 192 were referred; hydrocephalus, 37; mesenteric disease, 40; bronchitis, 122; pneumonia, 43; heart-disease, 86; liver-disease, 33. The average temperature for the quarter was 58 deg., and the rainfall measured 6.72 inches.

TESTIMONIAL TO DR. ATKINS OF CORK.

DR. G. PURCELL ATKINS, late resident Medical Officer of the Cork Fever Hospital, which post he has held for the past three years, lately received an address from the General Committee of that institution of a very laudatory character, on the occasion of his leaving the hospital, which stated that "they remembered with admiration his indefatigable efforts when small-pox, in its most virulent and fatal type, swept through their city; and in that time of danger, however harassing and incessant were his duties, he was always found at his post, sympathising with the afflicted, and endeavouring to relieve and save the sufferer".

QUEEN'S UNIVERSITY IN IRELAND.

THE annual meeting of Convocation was held on the 13th instant, in St. Patrick's Hall, Dublin Castle; the President of Belfast College in the chair. The report of the Annual Committee showed that the Queen's University in Ireland is steadily advancing in usefulness, and that it is doing a considerable amount of good, in spite of all opposition. Since last meeting, two of the Professors—Messrs. Redfern and Simpson—have been placed upon the Senate, in accordance with the wishes of Convocation; whilst Sir Robert Kane, late President of Queen's College, Cork, has also been elected a Senator. The report states that there are three subjects of great importance to the University; viz., the necessity of a representation in Parliament, a better system of intermediate education in Ireland, and the necessity for suitable buildings for the University. The question of diplomas in State Medicine being granted was adjourned, owing to a quorum not being present.

CATHOLIC UNIVERSITY MEDICAL SCHOOL.

A PETITION, signed by students of this school, has lately been forwarded to the Rector of the Catholic University, protesting against the appointment of Dr. Gunn, who was recently elected as a demonstrator of anatomy. The reason given is that, because Dr. Gunn was not a student of their medical school, he should not have been appointed; and that the supporters of the Catholic University will consider that the authorities are obliged to recruit its staff of teachers from other institutions. Dr. Gunn was a student of the Queen's University; and this point has caused all the mischief, as the Queen's Colleges are condemned by the Roman Catholic prelates. We believe that Dr. Gunn was simply appointed because he was the best to fill the vacancy that offered; and we regret that any petition of the kind we have referred to should have been brought forward in such a public manner, to injure the reputation of a member of our profession, or to coerce the Rector to dismiss him.

VISITORS OF EXAMINATION.

THE names of the following gentlemen have been recommended by the medical licensing bodies of Ireland to the Irish Branch Council, and by them transmitted to the Executive Committee of the Medical Council for selection, to perform the duty of visiting the twelve licensing bodies, whose examinations are to be inspected this year. From the Royal College of Surgeons—Mr. Morgan, Dr. Mapother, Mr. Stokes, Dr. Corley, Dr. Croly, and Dr. Barton. From the King and Queen's College of Physicians—Drs. Lyons, Little, Foot, Hayden, Beatty, and McSwiney. From the University of Dublin—Dr. McDowel, Mr. Bennett, and Dr. Purser. From the Apothecaries' Hall—Drs. Charles Moore, O'Neil, Montgomery, and Collins. It is stated that the Queen's University Senate, maintaining its attitude of hostility to the Medical Council and its recommendations, peremptorily refused to recommend anyone.

ASSOCIATION INTELLIGENCE.

NOTICE OF MEETING.

The First General Meeting of the British Medical Association, incorporated under the Companies' Acts 1862-1867, will be held at the Queen's Hotel, London and North Western Railway Station, Birmingham, on Wednesday, the 4th day of November next, at five o'clock in the afternoon.

Dated this 22nd day of October, 1874.

Francis Fowke,
General Secretary.

COMMITTEE OF COUNCIL.

Notice of Meeting.

A meeting of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Wednesday, the 4th day of November next, at a quarter past 3 o'clock in the afternoon.

Francis Fowke,
General Secretary.

36, Great Queen Street, London, October 8th, 1874.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEETING.

The autumn meeting of the above District will be held at the Board Room of the Infirmary, Chichester, on Tuesday, October 27th, at 3 P.M.; Dr. Tyacke in the Chair.

The dinner will take place at the Dolphin Hotel, at 4.45 P.M. precisely. Charge 5s., exclusive of wine.

Wm. J. Harris, *Honorary Secretary.*

Worthing, October 10th, 1874.

WEST SOMERSET BRANCH.

The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 29th, at 5 o'clock.

The following question has been settled by the Council as the one on which each member should be asked to express his opinion at the meeting after dinner: "What is your opinion as to the best treatment of whooping-cough?"

W. M. Kelly, M.D., *Honorary Secretary.*

Taunton, September 29th, 1874.

BORDER COUNTIES BRANCH.

A meeting of the above Branch will be held at Dumfries on Friday, October 30th, under the Presidency of Dr. Green of Kendal.

Gentlemen intending to read papers or take part in the proceedings are requested to give early notice to the Secretary of their intention.

Henry Barnes, M.D., *Honorary Secretary.*

Carlisle, October 14th, 1874.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

The annual meeting of the above Branch will be held at the Midland Institute, on Friday, October 30th, at half-past Three.

Vincent Jackson, } *Honorary Secretaries.*
Robert Jolly, }

Birmingham, October 19th, 1874.

SHROPSHIRE SCIENTIFIC BRANCH: ANNUAL MEETING.

The Annual Meeting of this Branch took place in the museum of the Natural History Society, Shrewsbury, on September 9th. There was a large gathering of members present.

President's Address.—The President, W. Eddowes, jun., Esq., read a short address, in which some of the advances in medicine and surgery during the past year were noticed. He commented on, particularly, Sir James Paget's remarks on the treatment of acute diseases by bleeding. The abuses of hospitals and dispensaries were also considered.

Papers.—1. Mr. T. L. Webb read a paper on a case of Hydrophobia, occurring in his practice.

2. Mr. Wood gave the history of another case of Hydrophobia, and reviewed the varieties of this disease; the remedies used in its treatment, and their apparent effects in modifying it. He wished to raise this question for discussion: As the period of incubation of the hydrophobic poison lay dormant so long in the system, and as there was usually some pain or uneasy sensation in the bitten part previous to the manifestation of the earliest symptoms of the disease, may it not, like the virus of vaccination, lay dormant in the part during the interval from the insertion of the poison until the system begins to shew symptoms of the disease? and, if so, may not the bitten part be excised with some hope of cure?

3. Mr. Stowers read a paper on a case of Morphæa Alba, which was exhibited. (See page 517.)

4. Mr. Harries brought for observation a bad case of Onychia Maligna, treated with Nitrate of Lead.

5. Mr. W. Eddowes showed a case of recovery from extensive Burn over the chest, abdomen, and genitals of a child, aged five years.

6. Dr. Alfred Eddowes brought a preparation of Malignant Growth upon the Epiglottis.

Votes of Thanks.—The usual votes of thanks were passed to the retiring President, the Council and other officers of the Branch. The new Council and officers were then elected.

Dinner.—In the evening the members and friends, including the Mayor, dined together at the George Hotel.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEETINGS.

A meeting of the above District was held on Friday, September 25th, at the Maiden's Head Hotel, Uckfield; present, twenty-three members and one visitor. In the absence of Mr. Henry Holman of East Hoathley through illness, the Chair was taken by Mr. G. F. Hodgson of Brighton, the President of the Branch.

Papers.—The following papers were read.

1. Dr. Henry Moon (Brighton), On a Case of Cardiac Hyperæsthesia.

2. Dr. Withers Moore (Brighton), On Hydrophobia. Dr. Moore commenced by reading a brief account of one of two cases of hydrophobia, which had occurred very recently in his practice. The case brought before the Society was remarkable for the shortness of all the stages of the disease (death occurring three weeks after the bite) and for the absence of the melancholic stage, the patient being at the Aquarium within thirty-six hours of his death. The inhalation of chloroform, the hyperdermic injection of morphia, and the administration of drachm-doses of chloral in nutrient and stimulating enemata, were tried; but the patient succumbed within twenty-four hours. The subject of hydrophobia was then treated with special reference to its pathology. Morbid anatomy was held to give but very uncertain aid. Dr. Clifford Allbutt's specimens, and his remarks thereon, were duly noted; and reference was made to the enlargement of the spleen in Dr. Allbutt's case, and also in Mr. Hulke's two cases, in which last the kidneys were found to have been acutely inflamed, pointing to toxæmia. Rudnew, in an article on the Pathology of Hydrophobia, held that, like almost all other infectious diseases, rabies was connected with a profound disturbance of all the important organs. The kidneys in all his cases showed there had been a highly developed parenchymatous inflammation, affecting alike both cortical and pyramidal portions. Rudnew thinks it extremely probable that the uræmia may be the cause of many of the symptoms. The opinion of Jaccoud as to the lesions of the nervous system was also quoted, that they are neither constant nor characteristic. Reference was then made to the morbid appearances described by Klebs as occurring in a recent case, all the glands being found intensely red, Peyer's patches presenting great distension and redness of the follicles; in all the glands was found a deposit of finely granular refractive bodies of pale brown colour, usually stellate. The views of various authorities as to the nature and action of the poison were then discussed. According to Fuch, the poison of rabies acts upon the periphery of the nerve-branches of the wounded part, and the excitement following the course of the wounded nerve is carried to the pons Varolii. As antagonistic to the foregoing, Sir Thomas Watson's opinion, as set forth in his lecture on hydrophobia, was quoted and shown to be more worthy of support. Much stress was laid upon the statement of Bollinger, that dogs, in the incubation stage, and before they had themselves manifested any signs of rabies, can give the disease to other dogs and to man; hence the obvious necessity for tying up all dogs bitten until the usual period of primary incubation has been passed over, and the desirability of some prophylactic treatment being adopted in man. The most novel views were those of Schivardi of Milan, who, while acknowledging the existence of a ferment, probably a microphyte capable of decomposing the urea of the blood,

says "that the disease shows itself at first in nervous symptoms, during which the patients nearly always die, and that, though these symptoms may be dissipated by means of electricity, the dyscrasic affection continues, leading to the second, or uræmic, stage of the disease". Schivardi has found in the blood of hydrophobics the *torula urex* of von Theighem. Romberg points out that the difficulty of deglutition depends "less upon the impossibility of swallowing than upon its being prevented by a sudden stoppage of breathing". The patient feels at the moment of attempting to swallow a suffocation and choking. Dr. Moore then maintained that rabies was most allied, pathologically, to syphilis of all the contagious diseases. Reference was made to the writings of Bäumler of Erlangen, John Hunter, Wilks, and Lee on the Pathology of Syphilis, and arguments were deduced therefrom in support of this hypothesis. Although all authorities agreed that the removal of the indurated part in syphilis will not arrest the constitutional symptoms, still it was shown from John Hunter's writings that "the shortening of the duration of the chancre shortens the period of absorption", and from this it was argued that in rabies it would be well, in all cases where effectual cauterisation might be doubtful, to excise the cicatrix even in the stage of recrudescence. Early and effectual cauterisation was insisted upon, and excision under certain circumstances. Arguing from Bollinger's statement and the *post mortem* appearances described by Klebs, the administration of mercury to moderate salivation was recommended during the primary and even the secondary incubation periods, and, during the latter one, in anticipation of the depressing effects of the poison and while the power of swallowing remained, stimulants and nutrient food were to be freely administered. In the acute stage, every variety of remedy had been in vogue since Celsus' time, and more especially blood-letting, which was deprecated on the grounds of being inapplicable, if not hurtful. Mercury was considered useless in this stage of the disease. Schivardi's trial of electricity on a young girl at Milan was then detailed. Under its influence, the violent excitement was calmed down, all the distressing symptoms disappeared; she had a long tranquil sleep, and she ate, drank, and conversed. By the sixth day, all the hydrophobic symptoms had ceased, leaving great prostration and extreme weakness, with irresistible somnolence. These symptoms were caused by urinæmia, which killed the child three days later. In summing up, the writer suggested that, if it should be possible to tide their patient over the first stage by electricity, attention must then be directed to the alleviation of the urinæmic condition. Magendie's plan of injecting large quantities of water into the veins was recommended to be tried, with the addition of half an ounce of bromide of potassium and ten grains of chloral, to be supplemented by nutrient enemata containing drachm doses of chloral, or an equivalent dose of croton-chloral. These means failing to relieve the inspiratory spasm or general convulsions, the inhalation of nitrite of amyl was to be tried as a *dernier ressort*.

3. Mr. C. L. Prince (Crowborough), On the Treatment of Hydrophobia. He said that, in the case of a person recently bitten by a mad dog, he would at once apply either fluid caustic potash or nitric or acetic acid to the wound, in order to secure a rapid and effective destruction of the poisoned surface. The prophylactic medicine advised by him in the Journal of May 16th should be administered as quickly as possible. In the case of a person who was seized with the early symptoms of hydrophobia, he would endeavour to establish a rapid and thorough salivation. The best preparation for this purpose, under these circumstances, was the subsulphate of mercury or "turpeth mineral", of which he would administer from one to two grains (mixed with a little powdered white sugar and placed upon the tongue) every four hours. Ointment of nitrate of mercury should be rubbed over the glands of the neck and axillæ every hour, until symptoms of salivation commenced. An ointment of veratria (eight grains to one ounce) ought to be applied over the cervical vertebræ. The herb-decoction must be taken in ounce doses every four hours, and the patient should be wrapped in heated flannel or blankets for several hours, in order to favour the absorption of the mercury as well as to promote the action of the skin. With respect to the operation of *worming* dogs, as one of the preventives to hydrophobia, he purposed offering a few remarks shortly.

An interesting discussion took place, which was shared in by Sir J. C. Burrows, Dr. A. Hall, Mr. W. Wallis, etc.

Dinner.—Twenty-four members and visitors dined together at the Maiden's Head Hotel, under the presidency of Mr. W. Wallis of Hartfield.

Meetings in the District.—It was agreed upon that no alteration should be made in the number of meetings held in this District; viz., four annually. The next meeting will be held, in conjunction with the West Sussex District, at Brighton, on the last Wednesday in November; Sir J. Cordy Burrows in the Chair.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

The first ordinary meeting of the session 1874-5 was held on October 8th, at the Midland Institute, Birmingham: present, Mr. W. C. Garman, President, in the Chair, and forty-nine members and visitors.

New Members.—Mr. W. R. Brunton (Tamworth), Mr. J. A. Lycett (Wolverhampton), Dr. Slimon (West Bromwich), Mr. E. T. Burton, Mr. F. F. Hopkins, Mr. W. L. Le Sage, and Mr. Walter Ottley, M.B., of Birmingham, were elected members of the Branch.

Special Meeting.—It was resolved that a special meeting of the Branch be called for October 22nd, for the adjourned discussion on the report of the Committee on Medical Education.

Secretaryship.—The President read a letter from Mr. T. H. Bartleet resigning his office as one of the Honorary Secretaries of the Branch. It was resolved, "That the resignation of Mr. Bartleet be accepted with much regret; and that the most cordial thanks of the Branch be given to him for his zealous, energetic, and valuable services during the ten years he has held the office of Secretary to the Birmingham and Midland Counties Branch." The latter part of the resolution having been put separately, it was carried by acclamation. It having been decided to proceed with the election of a successor to Mr. Bartleet, it was unanimously resolved, "That Dr. James Sawyer be elected one of the Honorary Secretaries of the Branch."

Communications.—1. Mr. Lawson Tait showed a young woman who presented the anatomical rarity of a Cervical Rib.

2. Mr. Tait also showed the intestines in a case of Grouse Disease in which there were no parasites. Mr. Tait had examined a number of cases, and found the parasites in a small minority.

3. Dr. Russell read a valuable paper on Alcoholism from a Clinical Point of View.

At the conclusion of Dr. Russell's paper, it was resolved, on the motion of the President, seconded by Dr. Russell, "That a Committee of the Branch be appointed to consider the best means of furthering legislation for the care and restraint of habitual drunkards; and that the Commitee consist of the following members of the Branch: Mr. W. C. Garman, Dr. Russell, Dr. Thomas Underhill, Dr. James Thompson, Dr. Harrison, Mr. F. Manby, Mr. J. Manley, Mr. Lawson Tait, Dr. Fowler Bodington, Dr. Rickards, Mr. Watkin Williams, Mr. Solomon, Dr. Wade, Dr. Johnston, Mr. V. Jackson, Dr. Parsey, Mr. West, Dr. B. Foster, and Dr. Sawyer."

In the discussion on Dr. Russell's paper, Mr. George Yates, Dr. Thomas Underhill, Dr. Fowler Bodington, Mr. T. Watkin Williams, and others, took part.

CORRESPONDENCE.

THE ASPIRATOR IN TAPPING THE CHEST.

Sir,—My attention has only recently been called to some comments on a case reported by me in a contemporary, which appeared in the British Medical Journal of September 19th, but which escaped my notice at the time in consequence of my absence from home.

The case was one of acute pericarditis accompanying acute articular rheumatism, in which copious and sudden effusion took place, threatening speedy death from failure of the heart. The condition was one of such imminent peril, and the indication for treatment was so obvious, that I had no hesitation in asking my colleague Mr. Steele to perform paracentesis pericardii. The operation was at once performed, as Mr. Steele fully endorsed my view of the case in considering that active interference was urgently needed. The instrument used was Weiss's aspirator of Dieulafoy, in which the larger tubes have not pointed extremities, but are arranged on the trocar and cannula principle. The trocar and cannula were introduced, the trocar at once withdrawn, and the tube of the aspirator inserted into the orifice of the cannula, being retained by means of a screw. Of course a few drops of fluid escaped in withdrawing the trocar; but there is very little risk of air entering at this period of the operation when the tension on the fluid-cavity is considerable. Mr. Godrich assumes that *an unguarded needle* was used, and that I had never heard of any other instrument, or it would have been used in this case. Now, I do not conceive that my friend Mr. Steele would have been so rash as to retain a sharp-pointed needle in the pericardium, rubbing against the walls of the constantly moving heart during the time occupied by the sucking away of the fluid. If such a proceeding had been proposed, I should certainly have been bound to protest against it. The danger to be anticipated from the unguarded needle in the case of pericardial effusion is too obvious to require comment; but I should be disposed to go farther than even your correspondent Mr. Godrich does, in considering that there must be risk from any instrument, whether it be a double (guarded) needle or a cannula. The sharp edges of the cannula or of the guarded needle are not unlikely to rub the injected inflamed pericardium to the extent of causing hæmorrhage; and the suction-power of the aspirator would, of course, exaggerate the mischief.

I am not surprised that Mr. Godrich should be unable to conceive that any good could result from his assumed operation, in which "the point of the needle must have come into contact with, and pierced or scratched, the walls of the beating heart itself"; but the facts cannot be disputed, that the operation performed by Mr. Steele gave immediate relief, and that the patient speedily recovered. It is impossible to be blind to the fact that there is risk from hæmorrhage when the aspirator is used in the case of inflamed serous membranes; but the risk of leaving the patient to Nature is often greater than that to be expected from the surgeon.

If Mr. Godrich's needle tend to lessen the risk from hæmorrhage, it must possess infinite advantages over the unguarded needle; but there seems to be very little difference, so far as risk to the patient is concerned, between Mr. Godrich's needle and the trocar and cannula arrangement. I am, etc., R. SHINGLETON SMITH.

Rokeby House, Clifton, October 13th, 1874.

SIR,—I should not have troubled you again with a communication respecting aspiration, had it not been for Mr. Brown's letter in your last week's JOURNAL. He seems, for some unaccountable reason, to think that I doubt his word; I have carefully read through my former letter, and cannot conceive what there is in it that has led him to form such a conclusion.

Of what use it can be to the profession at large to be told that a particular instrument has been in use at some hospital, I fail to see. Mr. Brown might just as well tell us that it had been used at the North Pole. Mr. Brown has not explained the instrument he uses. He calls it a guarded trocar; mine is nothing of the sort, no trocar being used at all. But whether my instrument be a novelty or not, is a matter of secondary importance. My object has been to draw the attention of the profession to the dangers of unprotected needles, and that it is time some one did so is, I think, shown by the fact of a leading surgeon tapping the pericardium with so dangerous an instrument, as recorded two or three weeks ago in a contemporary.

That protected needles are not generally known is, I think, conclusively proved by the fact, that a leading firm, like Messrs. Blaise and Co., knew nothing of their existence, and another leading firm, Messrs. Weiss and Co., on my asking them to show me one, were obliged to tell me that, although they had manufactured something of the sort, they had not a single one in stock for my inspection. Nor do I find such an instrument figured in the illustrated catalogues of any other maker. I am afraid that Mr. Brown has not given much attention to natural science; if he had, I do not think he would have made use of such a phrase as "complete exhaustion", "*plus* the suction-force of the aspirator". It is some years since I was at Cambridge, but still I must be allowed to doubt the possibility by any amount of suction of producing anything *plus* (more than) complete exhaustion.

I have not had much experience of dry cupping, and none at all of sucking the arm. In the first operation, I have never seen blood drawn; but, if it be so, Mr. Brown must remember that the vessels of the skin are there placed under an entirely abnormal condition, not, as in the case of aspirating a serous cavity, restored to one that is normal. In the second operation, I must say that I should entertain serious suspicions of the operator's teeth. But, if Mr. Brown really think his guarded trocar to be of no use, why, may I ask, is he always so particular in telling us that he used it?

There are two communications in your JOURNAL of the week before last which are, perhaps, more worthy of notice, both pointing to the dangers of aspiration. In cases of chronic pleurisy, where the lung is bound down by adhesions, I can well conceive that damage may be done by an incautious use of the aspirator. If the chest-walls do not sufficiently collapse, other organs may be displaced. It is in cases of acute pleurisy, where the accumulation of fluid is sudden and excessive, threatening suffocation, that the aspirator is of so much value; in such a case, no damage can be done if a protected needle be used; no amount of pumping can do more than restore the cavity of the pleura to its natural state—one of complete exhaustion.

When the lung is bound down, I believe it to be better and safer to use the old trocar and cannula; or, if the aspirator be used, to draw off but a small quantity of the fluid, about as much as would be compensated for by the falling in of the chest-walls; if more than this be removed, either air must enter or some damage done to other organs, perhaps, an emphysematous state of the other lung produced. In such cases, I have no belief in the possibility of drawing off any large amount of fluid by Dr. Thompson's trocar, or any similar instrument, without a corresponding amount of air being allowed to pass in to take its place.

The communications addressed to your JOURNAL seem entirely to ignore the value of the aspirator, except as used for tapping the chest. Would Dr. Thompson recommend his instrument for tapping a hernia, a paralysed bladder, an abscess, or the pericardium, cases in which there is no actively expanding organ like the lung to drive the fluid out? I expect, if he tried it, that he would find it of but little use without he could either employ external pressure or let air in freely to occupy the space of the displaced fluid. It is in such cases that the aspirator is useful and, if the needle be guarded, harmless.

I am, etc., ALFRED GODRICH, M.A., M.R.C.S., etc.

140, Fulham Road, October 10th, 1874.

SIR,—In a paper on "A Case of Traumatic Pneumothorax, illustrating the Use of the Aspirator", which I read at the meeting of the Association in London last year, I called attention to the dangers of hæmorrhage from the suction-power of the aspirator, lately under discussion in your JOURNAL.

The condition of the patient, who was under my care in the Cumberland Infirmary in the spring of last year, was one of great urgency, from total collapse of the right lung, the result of injury. Relief, and considerable expansion of the lung, were immediately obtained, four hours after the accident, by withdrawing air by the aspirator from the cavity of the pleura. But after the receiver had been several times exhausted, blood instead of air was drawn from the chest, and the suction-power had to be stayed.

In this case, owing to the wound of the lung, some exposed vessel was no doubt subjected to the suction-power of the aspirator. It was not necessarily, however, a wounded vessel, for careful examination of the chest before the operation revealed the presence of air, and air alone, in the pleural cavity; and I feel convinced that no injury was caused at the time by the point of the trocar, no harm happened from this bleeding into the pleura; and I was able, on subsequent occasions, to remove both the blood and air, the lung being completely restored. The object of this paper was not specially to relate a case of recovery from traumatic pneumothorax, or the assistance which the use of the aspirator gave to the early expansion of a collapsed lung, but to point out the danger, which the case seemed to teach, of hæmorrhage being caused by the suction of the aspirator. And I can have little doubt that such risk is real, and not imaginary, in tapping (the chest, for example) in disease, where there is reason to believe that the vessels of the walls of a cavity are inflamed and enlarged. For, whether the trocar be guarded or not, such vessels must of necessity give way and bleed when the surrounding pressure is too much reduced by suction with the aspirator. I am, etc.,

94, Wimpole Street, October 12th, 1874. HERBERT PAGE.

SIR,—I am sure no one will doubt Mr. George Brown's veracity on a matter of fact, but his idea of the amount of force capable of being called into action by means of the aspirator is, I think, open to some question.

In endeavouring to prove that hæmorrhage after aspiration of the chest is caused by rupture of the capillary vessels, he states that here "we have the complete exhaustion natural to all serous cavities *plus* the suction-force of the aspirator, which is something enormous", etc. Now, granting for the sake of argument that such a thing exists as a serous *cavity* in a state of complete exhaustion, it is quite obvious that no aspirator, however powerful, can increase that exhaustion, or add a single grain to the force already in operation—viz., the unbalanced pressure of the atmosphere. I am, etc.,

October 16th, 1874. CAIUS.

THE ANTAGONISM OF MEDICINES.

SIR,—I have followed with great interest the report of the Committee of the British Medical Association to investigate the Antagonism of Medicines, and trust that you will allow me to call attention to the second part, which appeared in the JOURNAL of Oct. 10th, On the Antagonism between Sulphate of Atropia and Calabar Bean. I venture to criticise it, in the hope that a difficulty, possibly owing to misprints in the figures, which now appears to detract from the value of its conclusions, may be removed.

The committee first determines the effect of each substance administered separately, and the minimum fatal dose of each in rabbits of the same weight. It finds that the extract of Calabar bean is a very active poison in rabbits; three-quarters of a grain is fixed as the minimum fatal dose. The sulphate of atropia is comparatively inert, up to four and four-and-a-half grains, producing "no symptoms whatever"; beyond this, dilatation of the pupils and other symptoms of the absorption of the drug occur. The minimum fatal dose is fixed at twenty to twenty-one grains. The committee next goes on to ascertain the action of the one on the other when given together. In the first set of experiments, one to two grains of extract of Calabar bean are given, and one to four-and-a-half grains of sulphate of atropia. In the second set of experiments, one grain and a half of the extract of Calabar bean is given to fourteen rabbits in succession. In the first seven, it is given alone; in the remainder, it is followed by one-half to one grain and a quarter of sulphate of atropia. That the experiments may be more exact, the weights of the rabbits in these two cases are as nearly as possible the same. In the third set of experiments, the extract of Calabar bean is given in doses varying from two-thirds to one grain, followed by the sulphate of atropia, from one-half to three-quarters of a grain. Here the result is somewhat variable, as the quantity of the extract of Calabar bean is above or below the minimum fatal dose for each rabbit; so that I do not propose to consider this set of experiments.

The general conclusion of the committee is, that "the sulphate of atropia does antagonise fatal doses of Calabar bean, but within a very limited area", and "that it certainly prolongs life".

Now the point to which I wish to call attention is this: the Calabar bean, in these experiments, is given in a dose twice or three times as large as the minimum fatal dose; indeed, in a quantity which proves fatal in a few minutes. But the amount of sulphate of atropia administered to counteract this overwhelming dose of Calabar bean is in no case sufficiently large, when given by itself, to affect the pupil or to produce any symptoms whatever. In almost all the cases, it is only one-sixth or one-eighth part of the dose at which the committee states that any symptoms of the administration of atropia begin. Ought we, therefore, to expect that such a dose, so totally inadequate to produce the slightest symptom when given by itself, would have any very marked effect on an animal already under the influence of a quantity of another poison sufficient to destroy it in a few minutes? Let us take the second set of experiments, which are the best arranged and most conclusive, and what do we find? Of the first seven rabbits, to which the Calabar bean was given by itself, six died in less than ten minutes each, the seventh in sixteen minutes. But, in the remaining seven, where the same quantity of Calabar bean was followed by one-half grain to one grain and a quarter of sulphate of atropia, life was prolonged in the several cases from 29 minutes to 110 minutes. Thus we find that a quantity of sulphate of atropia, far too small to produce any physiological symptoms when given by itself, yet, given to an animal under the influence of a rapidly fatal dose of Calabar bean, causes it to live from four to ten times as long as it otherwise would. From this, the conclusion would naturally be, that the antagonism between the two drugs was almost marvellously striking; and the apparently obvious lesson that it would suggest would be to increase the quantity of sulphate of atropia given to from three-quarters of a grain to ten grains, fifteen grains, twenty grains, or more; so that it should bear a reasonable physiological proportion to the quantity of Calabar bean given. This, however, does not seem to have been done; and the question to which, through your assistance, I am endeavouring to get an answer is, Why was it not done? Because, as the report stands, the almost homœopathic character of the doses of sulphate of atropia compared to the doses of Calabar bean given seems to explain the results arrived at. Thus the report states that the "so-called antagonism existed within very narrow limits. The danger was not death by too great a dose of sulphate of atropia, the supposed antagonist, but death from the effects of Calabar bean. In this respect, there was also a marked contrast to the action of hydrate of chloral on the physiological effects of strychnia. In the latter instance, the danger evidently would be, in a case of poisoning by strychnia, to give too large a dose of hydrate of chloral; whereas, in the case of poisoning by extract of Calabar bean, it would apparently be very difficult to arrest its effects, because a small dose of the latter produces little effect (at all events, in rabbits), and the effects of Calabar bean are so violent as soon to destroy life". Now the report gives the minimum fatal dose of hydrate of chloral as exactly the same as the minimum fatal dose of sulphate of atropia; viz., twenty-one grains in each case; and the doses of strychnia and of extract of Calabar bean to be counteracted in the two cases are also of much the same relative strength; that is, compared with the minimum fatal dose of each. But the quantities of hydrate of chloral and of sulphate of atropia used to counteract them respectively are extremely different. About fifteen grains or sixteen grains is the ordinary dose of hydrate of chloral used as an antidote to strychnia, whilst three-quarters of a grain is the ordinary dose of sulphate of atropia used as an antidote to Calabar bean in the experiments of the committee. That is to say, in the first case, doses verging on the minimum fatal dose of the drug are constantly given; in the second, a sufficient dose to produce any physiological symptoms whatever is never once given, although the poisonous effect to be counteracted in the two cases is of the same strength. It is in order to obtain an explanation of this difficulty, which seems to mar an elaborate, beautiful, and valuable series of experiments, that I have troubled you at this length.

I am, etc., W. A. Richards, M.D.Lond.

Winchester, October 12th, 1874.

SCARLET FEVER IN IRELAND.

Sir,—I will feel greatly obliged if you will correct a mistake with regard to the great prevalence of scarlatina in Londonderry, as it is calculated to cause great and unnecessary alarm to persons living at a distance, who have friends or relations in Londonderry. There has been no epidemic of scarlatina in Londonderry, and consequently no family has lost three or four children. I am above the number when I state that there have not been twenty cases during the last twelve months, and not more than two or three deaths. This, I think, is a very small number in a city of 30,000 inhabitants. I am, etc.,

William Miller, M.B. T.C.D.,
Surgeon to the City and County of Derry Infirmary, and City Fever Hospital.

18, Pump Street, Londonderry, October 20th, 1874.

HOSPITAL SATURDAY.

Sir,—There can be little doubt that one effect of the Hospital Saturday collection will be the diffusion of an opinion amongst the working-classes, that they are entitled, on the ground of contribution, to an extension of hospital assistance.

The members of the medical and surgical staffs of our large hospitals, who are engaged in out-patient practice, will feel the results of this demand; and, as it is not likely that the committee of management will be desirous to limit those departments of the hospitals, it will become a serious question for the younger members of the profession to consider whether it will not be necessary to take steps to prevent an unfair demand on their time, health, and energies.

There is no reason whatever, now that so much additional support is afforded to our hospitals by the recent annual collections on Hospital Sunday and Saturday, for the services of our profession being so taxed without remuneration. The public, as well as the profession, would benefit by a fair recognition of services, which no other profession or class of men is required to perform gratuitously. The time has come when a change must take place and justice must be done.

I am, etc., An Assistant-Physician.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 7th, 1874.

E. J. Tilt, M.D., President, in the Chair.

Garment Suspender.—Dr. **Tilt** exhibited some braces introduced by an American firm into this country, under the name of ladies' garment suspender. They consisted of elastic webbing similar in construction to the ordinary braces, but having hooks attached to the extremities, so that the skirts could be readily fastened on to the braces. They were of service in many cases where the pressure of the clothes on the lower part of the abdomen produced much inconvenience.

Intestinal Fibroid Tumour.—Dr. **Potter** and Dr. **J. C. Hayes** reported that the specimen exhibited by Dr. Daly at a former meeting consisted of an interstitial fibroid tumour embedded in the tissue of the uterine body and fundus. From the posterior wall of the cervix extending from the external to a little beyond the internal os, a ragged, soft, and very lacerable growth sprouted. Nearly the whole of the anterior wall of the cervix had been destroyed by ulceration. The vagina was free from disease. The left ovary was enlarged to the size of a hen's egg. The microscopical appearances of the growth in the cervix were those of medullary cancer, undergoing rapid fatty degeneration. The uterine fibres lying nearest the mucous membrane were packed with small round cells, whereas the fibres on the posterior surface of the neck were healthy. The cancer seemed to have originated in the mucous membrane of the neck.

Relation between Congestion of the Uterus and Flexion of the Organ.—

Dr. JOHN WILLIAMS read a paper on this subject. He said that different and even opposing views are held regarding it. 1. It is held, on the one hand, that congestion is the primary morbid condition of the uterus, and that flexion follows as its consequence. 2. It is maintained that flexion is the primary morbid state, and that congestion is brought about by it. 3. A third view may be adopted, viz., that the two conditions bear no relation of cause and effect, though they frequently coexist. After discussing the various opinions, the author thus summarised his conclusions. There is no evidence to show that a physiologically increased flow of blood through the uterus occurring periodically, or erections of the uterus, favour or cause chronic congestion of the organ. Exposure to cold during a menstrual period is not a common cause of congestion of the uterus. Simple congestion is a rare affection of the virgin uterus. Flexion, or flexion accompanied by congestion, is not an uncommon affection of the organ in its virgin state. The effects of congestion on the uterus are, at first, slight enlargement through distension of its vessels, then slight softening from exudation into its tissue, and, lastly, enlargement of the organ and induration of its tissue. The increase in weight of the body of the virgin uterus arising directly from congestion is probably equal to about the weight of two drachms of blood. The effects of congestion on the uterus are such that it is not possible for such a small force as the weight of two drachms of blood to produce flexion of that organ. The condition of the uterus from the time of impregnation to the fourth month of gestation militate strongly against the view that congestion is a cause of flexion. The effects of flexion on the uterus are occlusion of its canal leading to dilatation of its cavity and congestion and thickening of its walls, just as obstruction to the exit of material from all hollow muscular organs causes dilatation and hypertrophy of those organs. The increased flow of blood through the flexed uterus just before menstruation does not diminish but increase the flexion. Simple flexion of the uterus gives rise to congestion and hypertrophy of the cervix by compressing the venous plexus around the insertion of the vagina into the uterus. In retroflexion, the body of the uterus and the veins of the broad ligament may be grasped by the sacro-uterine ligaments and thus become greatly congested.—Dr. TILT thought the author had well explained the mechanism of uterine congestion by flexion of the womb; but something more than flexion was required to account for uterine congestion and its consequences, otherwise the case of the uterine disease would not so frequently permit patients to take an active part in all social duties, although the womb remained retroflected. Dr. Tilt still believed, with Roget, that normal menstruation congested the womb. In many cases of uterine disease, menstrual molimen was seldom absent, and that there ensued a considerable amount of permanent softening of the body of the womb, while the cervix retained its usual firm consistency. Under such circumstances, some internal pressure must bend the overweighted body of the womb on its neck. The frequent disappearance of marked uterine flexion after the cure of uterine congestion and ulceration, by leeches, cooling injections, and caustic treatment showed these morbid conditions to have been the real cause of the flexion. Nothing could be more dangerous to sound practice than to attach too much importance to flexion of the uterus as a factor of disease. He concluded by strongly urging that, whatever else was amiss about the womb, its state of flexion should be cured before resorting to mechanical measures.—Dr. BARNES demurred to the statement that the profession was divided into two camps, in one the flexion, and in the other congestion preceding. The tendency was to receive one idea and to be satisfied by it, the mind not being able to receive both. No doubt, inflammatory conditions arose after labour from enlargement and subinvolution and flexion or version ensued. As to flexion preceding congestion, the former existed in the virgin state before any physiological changes had taken place in the uterus. The flexion might favour congestion, but numerous cases of dysmenorrhœa could not fairly be put down to one or the other condition, the congestion being often due to constriction of the lower part of the cervix. The paper was a clear and well reasoned out statement. —Dr. BANTOCK thought there was one point that had been missed—the effect of cold in repressing the catamenia; he had seen numerous cases where severe consequences had ensued from this cause.—Dr. BRAXTON HICKS remarked that flexion persisting, and congestion then occurring, the latter was kept up by the flexion. Flexion itself was common, and yet there were no symptoms; therefore, we could not look upon flexion as producing congestion; but where flexion existed and congestion occurred, then there were all the symptoms described. Congestion was relieved entirely by replacing and supporting the uterus.—Dr. PLAYFAIR said that there were cases where congestion existed, but it was impossible to treat the flexion, but by relieving the congestion (by leeching, etc.) the flexion disappeared. He agreed with Dr. Williams, that in the vast majority of cases pessaries were necessary. As regarded mechanical treatment, he thought more highly of it than formerly, since perusing Dr. Graily Hewitt's work. It was true that the introduction of the uterine sound often produced inflammatory mischief if used incautiously.—Dr. BRAXTON HICKS remarked that the employment of the uterine sound for redressing the retroflexed uterus was unnecessary; the postural treatment and the pessary being all that was required.—Dr. WYNN WILLIAMS said that flexion might precede congestion and cause it, while in other cases the congestion caused the flexion. He had grave doubts if any severe flexion could be removed by treatment.—Dr. GERVIS said that cases were frequently met with where flexion and congestion existed together; the latter was relieved by nitrate of silver, etc., applied to the interior of the uterus, and the version passed away without the employment of a pessary. In cases of sterility, it was not at all infrequent to find the catamenia regular and no uterine disturbance whatever, and yet flexion existed.—Dr. WILLIAMS stated that he did not allude to versions, only flexions.—Dr. HAYES stated that in case of menstruation the whole uterine organ did not undergo congestion. In the mid period, congestion occurred when the mucous membrane was being formed. It was a question whether the menstrual nisus caused sufficient congestion to lead to flexion. It often happened that a patient had a larger discharge than usual at the menstrual period, and was suddenly seized with violent pain, which passed off; at the next period, the pain returned; and, on examination, the uterus would be found to be enlarged and partially fixed. This would be ascribed to hæmatocele, but it might be pelvic cellulitis. In cases of prolapsus with retroflexion, there were hypertrophy of the neck and elongation.—Dr. WILLIAMS, in reply, stated that when the uterus was enlarged after labour the fundus projected out of the pelvic into the abdominal cavity; the force of the diaphragm acting on the posterior surface produced anteflexion; or retroflexion might be produced by slight exertion, such as getting out of bed, the fundus was driven by the action of the abdominal muscles under the sacral promontory, and the organ, on account of its size, became fixed in that position, permanent retroflexion being the consequence. He did not dispute the fact that exposure to cold during the menstrual flow caused congestion of the uterus, but, according to his experience, it was not of common occurrence. That there was a third factor between flexion and congestion he had no doubt. In cases of retroflexion, that factor is the constriction caused by the retrouterine ligaments. In other cases, it is the constriction of the uterine canal at the point of flexion. The object of the paper was to show the relation that may exist between the two conditions, not to prove that flexion was the only cause of congestion. The uterus that remains enlarged after labour is not merely congested but hypertrophied, involution not being properly completed. In considering the relation between congestion and flexion, we should study the subject in the virgin uterus, where simple congestion was never met with.

Ileo-cæcal Intussusception in an Infant of Eight Months.—Dr. MADGE related the particulars of a case where much straining with the passage of pure blood *per rectum* led to the supposition that intussusception had taken place. Death occurred suddenly; and, on a *post mortem* examination, a portion of the ileum, with a great deal of the large intestine, was found to be completely invaginated in the remaining portion of the canal. The supposed cause of the mischief was an excessive amount of tossing and romping to which the child had been subjected.—Dr. PLAYFAIR referred to a case in which there was a distinct loss of blood *per anum*. Gastrotomy was proposed, but one or two eminent surgeons declined to sanction the operation. The tumour increased, and the patient died. Had an operation been performed at first, the invagination might, no doubt, have been removed.—Dr. BRUNTON had seen several cases in which the tumour was very manifest, a knot of bowel being detected in the neighbourhood of the umbilicus. Injection of air and also water had been tried unsuccessfully. Tincture of opium in drop doses often proved of great service.—Dr. HAYES agreed with Dr. Playfair in the advantage of an operation.—Dr. GERVIS cited one case where ice had been applied. The tumour disappeared, and the child recovered.—Dr. RASCH alluded to the case of a watchman at Vienna who passed several feet of intestine *per anum* and recovered.—Dr. WYNN WILLIAMS referred to several cases published in the *Medico-Chirurgical Transactions.*

Dr. GRAILY HEWITT has been elected Honorary Member of the Obstetrical Society of Philadelphia.

BEQUESTS.—The late Mr. John Hutchinson of Newcastle-on-Tyne has left the following legacies to medical charities amongst others, the total amount being about £200,000: To the Newcastle-on-Tyne Infirmary, £25,000; to the Newcastle Dispensary, £10,000; to the Prudhoe Home at Whitley, £2,000; to the Ingham Infirmary at South Shields, £1,500; to the Children's Hospital, the Lying-in Hospital, the Indigent Sick Society, and the Eye Infirmary, £500 each.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE Truro Rural Sanitary Authority recently proposed to appoint the eight district medical officers of the union as medical officers of health, which the Local Government Board hesitate to sanction, but recommend the appointment of one for the entire district. The subject was discussed at the last fortnightly meeting of the Authority, during which it was successively proposed to appoint four, then one, then two, and finally resolved to appoint four. We doubt if that number will find more favour with the Local Government Board than eight.

MR. ADAMS AND THE BETHNAL GREEN WORKHOUSE INFIRMARY.

SIR,—After seven years' hard service as medical officer to the above institution, with of late sole and responsible charge of nearly five hundred sick, and about two thousand fresh cases passing each year through my hands, including many of the worst type of disease, together with an average of one hundred and twenty confinements annually, the Board of Guardians have compelled me to resign my appointment, on the charge of neglect to a patient.

I had full hope of a Poor-law inquiry being granted by the Local Government Board; but, as this has been denied me, I would ask you in the name of justice to grant me the favour of an early insertion of the following facts of the case which has been so misrepresented, and the cause of my having to tender my resignation.

About the month of July last, as may be well known, diarrhœa became very prevalent; we had our share in the workhouse and infirmary, as reported in my journal laid before the Guardians on the 23rd of July last. Twelve days after my return from a stay at the seaside for a few days, one clear board-day having intervened, and on the very day I had reported for the second time a nurse for insubordination, the charge of neglect was preferred against me respecting a patient taken with diarrhœa more than three weeks previously. The nurse left the establishment soon afterwards. Had I previously received information that she had been once or twice a lunatic pauper in an asylum, it is possible less might have been expected from her. It is not always easy or prudent to attempt to suddenly refer back to any one particular case occurring nearly a month previously, at a moment's notice, as required by our Guardians.

With your kind indulgence, I will now give a copy of the letter addressed by the Board of Guardians to the Local Government Board forming the grounds for my having to resign:

"That, upon the night of the 5th of July instant, one of the inmates, named Sarah Oney, was taken with diarrhœa and removed into the infirmary. She continued to get worse; and, at five o'clock next morning, was suffering with cramps, with vomiting, and the nurse in charge of the ward sent for Mr. Adams to attend upon her. He sent word back they must do the best they could until he came, and did not see the woman until he was again sent for at 10 A.M., thus leaving the patient five hours without seeing her. At that time, the case had assumed so bad a character that he sent for another medical man to see her, but nothing could then be done, and the woman died some hours afterwards."

In reality, the patient Oney was taken with diarrhœa and removed to the infirmary at 5 A.M. the morning of July 5th. Had she then been seriously ill, the responsibility of her removal would not have been undertaken without my authority. The message sent up my speaking-tube by the night gate-porter was that a case of diarrhœa had been taken to the infirmary. No request being made for me to visit the case, I gave instructions for the remedies usual in such cases to be given, fully expecting that, in the event of their proving unsuccessful or any urgent symptoms arising, immediate intimation would have been given me, according to their rules and my general instructions. No further report of the case was made to me until a little after 10 A.M., when, upon commencing my rounds, I met the day nurse. I was also at that time required to attend a lunatic in the receiving-ward, beside a lying-in case in the infirmary.

The report in the Superintendent of Nurses' Journal shows that "after applying the remedies, she left the patient a little better that morning", showing the treatment to have been so far successful; indeed, at that time no serious symptom showed itself, even after I had visited her a little later in the day, and up to the evening. Sudden choleraic symptoms intervened; and, Dr. Davey being in the house examining a patient with me, we saw Oney together, and I attended her up to her death, which took place at 7.45 P.M. on Monday, July 6th, viz., thirty-eight hours and a half after the accession of the diarrhœa. It was not even thought necessary to send for her children until Monday afternoon. From the commencement of the patient's illness, I ordered medicine, beef-tea, milk, eggs, brandy, etc.; and at the inquest, attended by my *locum tenens*, no complaint of any neglect was made against me, and I am prepared to show that the jury expressed themselves fully satisfied by the evidence of the nurses and witnesses that there was no want of attention on my part.

I have purposely laid some stress upon certain serious inaccuracies in the Guardians' letter above quoted. To give the charge more weight, the Guardians forwarded a letter received by them from the Leavesden Asylum authorities, complaining of the condition in which a patient was sent thither from this institution. The letter was not shown me, nor had I any opportunity afforded of refuting the charge.

It has always been my belief, strengthened by a careful reading of Glen's Poor-law Orders, and also by the opinion of officers at the head of other workhouses under the Poor-law, that it is no part of a medical officer's duty to inspect all his patients' heads, and minutely examine their bodies for dirt and vermin, otherwise than one would naturally cursorily do for his own sake; and that a medical officer cannot be held responsible if two or three nits should perchance escape his eye. However, for the credit of our workhouse, I must mention that cases sent to Leavesden go through the hands of several of our superior officers; that they are frequently examined by myself more than once prior to removal; that they are thoroughly bathed beforehand.

My chief aim in troubling you is to serve as a warning, if possible, to my fellow medical officers, and to show with what uncertainty the so-called life-appointments are held, and also how easily an otherwise trivial charge may be deemed of sufficient importance to terminate one's tenure of office, especially should one happen unfortunately to incur the displeasure of Boards for not altogether falling in with the opinions and acting up to the wishes of individual guardians, more especially of Poor-law nominees, whose power at least over one's present destiny appears unlimited. Let me just point out one or two rocks likely to shipwreck the hopes of an aspiring medical officer: 1. Inquests; 2. Swiss milk for sick babes; 3. Stimulants; 4. Reports of anything or anybody; 5. The too tardy sending down of sick patients from the infirmary; 6. Long tenure of office.

I am, etc.,
E. J. ADAMS, M.R.C.S.E.,
Medical Officer and Vaccinator, Bethnal Green Workhouse and Infirmary; Member of the British Medical Association.
Bethnal Green Workhouse Infirmary, October 19th, 1874.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

TAUNTON.—The town of Taunton lies in the valley of Taunton Dene, and is situated on alluvium, new red sandstone, and on new red marl. For the past thirteen years, the mean death-rate from all causes has been somewhat over 23 per 1000 inhabitants, whereas, during the past year, it has only reached 18 per 1000. Infectious diseases also were all but absent from the town; but we fear that this satisfactory result is hardly likely to be maintained, unless, in some very essential points, the sanitary work which has been begun in the town be prosecuted with vigour. Thus Dr. Alford, in his report, points out that, in a great number of instances, the water-supply is derived from surface-wells, which are fouled by soakage of liquid filth and by percolation from adjoining privies, and whose contents are in consequence not fit for use. A wholesome and a soft water is supplied by the Taunton Waterworks Company; but its use is not general, and it is unfortunately deficient in quantity. Hence the continued resort to impure sources of supply, and hence also a foul condition of water-closets, due to want of proper flushing. On the occurrence of some cases of scarlet fever in the town, handbills, containing plain directions as to disinfection, were judiciously circulated in the infected localities, disinfectants were liberally supplied by the Local Board of Health; and, the town having placed itself in possession of a disinfecting apparatus, where clothes and bedding are disinfected free of cost, the disease failed to spread to any noteworthy extent, and only three deaths ensued. Hitherto the sewer-outfall at Obridge Weir has been a source of considerable nuisance, owing to the ponding back of the sewage by the current of the stream; but, as permanent sewerage works are about to be constructed, the removal of this evil may be before long accomplished. Early last year, Dr. Alford recommended the construction of a system of sewer-ventilation, and, when his report was issued, this was in process of being carried out. We view, moreover, with a certain amount of suspicion the system of charcoal trays which has been adopted. The offensiveness which calls for the use of charcoal is due to a preventable evil; for either the number of openings in the sewer is not sufficiently numerous to enable the foul air to become readily diluted, or else, owing to defective construction of the sewer itself, stagnation of contents takes place. In many places where charcoal has been used, it has been found to cause a serious hindrance to efficient ventilation, not only because it often obstructs the free exit of foul air, but also because it tends to prevent the easy entrance of atmospheric air into the sewers, by which means the dilution of the noxious gases is ensured before they escape. So strongly is this point felt by practical men, that, at a recent meeting of surveyors and sanitary engineers in Birmingham, the use of charcoal in connection with sewer-ventilation was all but unanimously condemned.

SPILSBY.—The rural sanitary district of Spilsby is sparse in population, though large in area. Its death-rate during the latter half of last year was 13 per 1000; it was to some extent made up of infectious diseases, amongst which enteric fever, which had prevailed in the town of Wainfleet, appeared; and a considerable amount of death was due to pulmonary consumption, favoured, in all probability, by the dampness of soil in those portions of the district which lie either on alluvial marshes or on reclaimed fens. The sewage passes for the most part into water-courses—a system which Dr. Walker admits to be inexcusable, although he is not at present prepared to propose any alternative. In giving advice as to the principles on which midden-privies should be constructed, Dr. Walker suggests that all water and fluids should as much as possible be kept out of them; and he adds, that there is no objection to their being made the receptacle for ashes and dry refuse. On both these points, we should go a decided step further; for no midden-privy can be free from nuisance unless its contents be kept as dry as possible, and this is best effected by the rigid exclusion of all rainfall and liquid refuse, and by the regular admixture of ashes with the excreta.

FROME.—In his annual report on the rural sanitary district of Frome, Mr. J. Parsons refers specially to the village of Nunney, which is characterised by its impure and insufficient water-supply. This place has already obtained an unenviable notoriety in sanitary literature by the widespread and severe outbreak of enteric fever which appeared there in 1872. The lesson of that outbreak appears, however, to have been disregarded by the sanitary authority; for, when Mr. Parsons wrote, he found that most of the inhabitants were using water derived from a stream polluted by the drainage of a village above, notwithstanding that a wholesome supply could with facility, and at a comparatively small cost, be brought into the place by gravitation. No provision has been made for the isolation of persons suffering from infectious diseases, and the means at the disposal of the medical officer of health for hearing of such cases at an early date are so imperfect, that in many instances he is quite unable to stay their spread. The sick remain in overcrowded dwellings, and, when death ensues, the dead bodies at times occupy the general sleeping apartment of the family.

APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

FORREST, John, M.R.C.S.Eng., to No. 2 Subdistrict of the Blackburn Rural Sanitary District.

HARTNOLL, Henry T., M.R.C.S.Eng., to the Exmouth Urban Sanitary District.

LODGE, Samuel, L.R.C.P.Ed., to the Tong Street (Yorkshire) Urban Sanitary District.

PATCHETT, Henry, L.R.C.P.Ed., to No. 3 Subdistrict of the Blackburn Rural Sanitary District.

WRAITH, John H., M.R.C.S.Eng., to the No. 1 Subdistrict of the Blackburn Rural Sanitary District.

POOR-LAW MEDICAL APPOINTMENTS.

ARMSTRONG, George W. F., M.D., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Castletown Dispensary District of the Castletown Union, co. Cork.

BOYCE, Joseph W., M.B., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Stillorgan Division of the Blackrock and Stillorgan Dispensary District of the Rathdown Union, co. Dublin.

BROOK, Thomas G., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the No. 1A District of the Langport Union, Somersetshire.

BUTTER, George B., L.R.C.S.Ed., appointed Medical Officer and Public Vaccinator for No. 8 District of the Bedminster Union, Somersetshire.

CALDWELL, Samuel, L.K.Q.C.P.I., appointed Medical Officer, etc., for the Virginia Dispensary District of the Oldcastle Union, co. Meath.

CLARKE, Francis W., M.R.C.S.Eng., elected Medical Officer to the Workhouse of the Bury St. Edmunds's Incorporation of the Poor.

DURE, Maurice S., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Stratford District of the Samford Union, Suffolk.

KERR, Elias W., M.B., appointed Medical Officer and Public Vaccinator for the Kinlough Dispensary District of the Ballyshannon Union, co. Donegal.

LEE, Barnard J., L.S.A., appointed Medical Officer and Public Vaccinator for the North Wingfield District of the Chesterfield Union.

MAGEE, Richard James, L.R.C.S.Ed., appointed Medical Officer for the Workhouse and FeverHospital, and a Medical Officer, Public Vaccinator, aud Registrar of Births, for the Kilkenny Dispensary District of the Kilkenny Union.

NEWSAM, Thomas, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for No. 2 or Begelly District of the Narberth Union, Pembrokeshire.

O'FARRELL, Nicholas S., M.B., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Woodstown Dispensary District of the Waterford Union.

POUNTNEY, Wm. E., M.B., appointed an Assistant Medical Officer at the Union Infirmary, New Bridge Street, Manchester.

RANSFORD, Thomas D., L.R.C.P.Lond., appointed Assistant Medical Officer to the Workhouse and Infirmary, Toxteth Park, Liverpool.

RITCHIE, Andrew, M.D., appointed Parochial Medical Officer and Sanitary Medical Officer for Cathcart, Renfrewshire.

ROUSE, Ezekiel, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Abbotsham District of the Bideford Union.

SHAW, Robert, M.B., appointed Medical Officer and Public Vaccinator for Dailly, Ayrshire.

TAPLIN, Benjamin D., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Leigh or No. 4 District of the Martley Union.

WELSH, J., M.D., appointed Medical Officer and Public Vaccinator for the Ballyshannon Dispensary District of the Ballyshannon Union, co. Donegal.

WILSON, Robert A., M.B., appointed Medical Officer to the Lunesdale Union Workhouse, and Medical Officer and Public Vaccinator for No. 1 District.

MILITARY AND NAVAL MEDICAL SERVICES.

OFFICERS of the Army Hospital Corps are to be classed for allowances as Departmental Officers.

IT is stated that the whole organisation of the Medical Department of the Army is about to receive the early consideration of the Secretary of State for War, with a view to the examination of existing grievances.

THE LATE STAFF-SURGEON F. T. M'CARTHY.—The sisters of the late Staff-Surgeon F. T. M'Carthy, of the Army Medical Department, who served in the expedition to the Gold Coast, and while on passage home as an invalid jumped overboard in a fit of mania, have been granted a pension of £50 a-year for their joint and several lives.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon-Major Adsett of the 23rd Fusileers, has sailed with his regiment on board H.M.S. *Tamar* for Gibraltar.—Deputy Snrgeon-General Gilborne has sailed for Jamaica to take up the appointment of Principal Medical Officer in the West Indies.

DEATHS.—Bindon, Surgeon-Major H. V., M.D., late of the 1st battalion 25th Regiment, died suddenly of heart-disease at Pietermaritzburgh, July 18th, aged 53. He served with the 6th Regiment in the Kaffir war of 1846-47, and in medical charge of the regiment during the campaign of 1851-53 (medal); joined the Expeditionary force in the north of China in 1860 (medal); served during the operations against the Taeping rebels in the vicinity of Shanghai, in April and May, 1862, and was present at the capture, by escalade, of the walled towns of Tsinpoo and Tsolin, and the fortified town of Najow. He entered the Medical Department June 12th, 1846; became Surgeon, May 25th, 1856; and Surgeon-Major, July 29th, 1867.—Carpenter, Surgeon W., 26th Cameronians, died at Morar on August 16th. The deceased joined the Medical Department September 30th, 1864, and served with the regiment in the Abyssinian campaign, for which he was given the war medal.—The deaths of the following officers have also been officially recorded at the War Office during the past month: Deputy Inspector-General H. Hadley, M.D., half-pay; Surgeon M. A. Kilroy, half-pay; Assistant-Surgeon R. T. Scott, half-pay.

DEPUTY-INSPECTOR of Hospitals and Fleets David Lloyd Morgan, C.B., M.D., has been ordered to hold himself in readiness to proceed to Hong-Kong to relieve Dr. Loney. Dr. Morgan was the first on the roster for foreign service. The next two officers who will have to go abroad are Dr. Watt Reid and Dr. Ahmuty Irwin, C.B.; the first of whom will probably relieve Dr. Jenkins, C.B., at Bermuda, when his time is up (March 1875).

THE ASHANTEE WAR REWARDS.

EXCLUDING the rewards bestowed upon the two military officers who commanded in chief during the first and second phases of the Ashantee war, two hundred and twenty combatant special service or regimental officers had distributed amongst them twenty-four honorary distinctions and forty-two promotions, being rewards in a ratio of 30 per cent.

Leaving out the three medical chiefs of the expedition, who obtained between them three steps and one K.C.B., the remaining eighty-nine medical officers only received one promotion and four honorary distinctions—little more than 5 per cent. The contrast is the more remarkable, as the late war was undoubtedly as much a doctor's as a military one. On the last occasion when Sir Garnet Wolseley commanded in chief in an expedition described as a great military success, not a single medical officer was alluded to or rewarded.

LAST STEP OF ALL.

The following advertisement appears in the *Clonmel Chronicle.*

"Thomas Francis Sparrow, Doctor in Medicine, Q.U.I., L.R.C.S., and L.R.C.P.Edin., Licentiate in Midwifery, Coombe Lying-in Hospital, Dublin; first Prize-man in Surgery, Royal College of Surgeons, Ireland; formerly Resident Pupil in St. Vincent's Hospital; late Surgeon (first place by competition) Royal Navy.—Dr. Sparrow can be consulted at his residence, 2, Anglesea Street, Clonmel, or will visit patients (in the town) at a charge of Five Shillings."

ORGANISATION OF THE ARMY MEDICAL DEPARTMENT.

A correspondent who has paid much attention to the subject has sent us the following suggestions.

It has become quite evident that we are not to be considered staff-officers, with the privilege of drawing staff-pay and allowances. Let, then, the medical officers attached to each regiment of infantry, cavalry, or brigade of artillery be gazetted to them, as are the field-officers, for five years, renewable with the sanction of the Director-General for a further period of five years. Restore to each regiment its trained hospital-sergeant and compounder, and make all stores and former regimental equipment and *impedimenta* stational and in charge of captains of orderlies or their deputies, issuing at the same time a few simple regulations for field service, whereby regimental officers may be massed together or detached to whatever duties may be deemed most desirable. As our medical officers would only be regimental, it is not at all probable that this last contingency would ever occur. Since one must go into action with the corps or look after its medical records and statistics, what better officer can you have than the one belonging to it, or who would be more likely, for his own credit, to keep everything appertaining to it in order?

In order to distribute the duty more evenly, gazette surgeons and surgeons-major indiscriminately to regiments; no officer should, however, be appointed to so important a charge, and one requiring so much tact and experience, who is under a certain number of years' service and the relative rank of captain. Attach for duty to a corps all newly appointed candidates *as assistants*, until they have completed five years in the army. It is really only with a regiment that they can learn that sense of discipline and respect for their seniors, and the customs of the service, without which knowledge they are of little value.

At all the large camps and stations, and only there, treat the sick on the general hospital system, brigading the medical officers in the same manner as they would have to act on service in the field, admitting the sick into surgical and medical divisions, apportioning to each medical officer a certain number of beds, and placing the whole under the senior officer. In this way, officers would, in each division of the kingdom, become accustomed to the manner of conducting field-hospitals, reverting at the smaller stations to their regimental hospitals constructed to every barrack. Where they are in the immediate vicinity of the men's quarters, it is unjustifiable to carry them when ill, perhaps miles away, to a situation where, in addition, they might have all the horrors of hospitalism to encounter. In this manner, all the undoubted good parts of the regimental hospital system would be retained and its only objectionable part, its *impedimenta*, removed.

Allow the medical officer of a regiment to wear the uniform of his corps, and remodel the staff-uniform by doing away with two sets of belts, the hideous cocked hat, and have the undress similar to that of the general staff, with a rolling collar, so that an officer in uniform may bend over a patient without the danger of being strangulated, or, if very corpulent, of bringing on a fit of apoplexy.

Braid and fashion the mess-jacket for mounted duties, and employ officers as much as possible according to their peculiar aptitudes. Do away with medical storekeepers, and cultivate as much as possible the *amour propre* of the officers. Restore the old system of brevet promotions for special or distinguished service, have no avoiders of foreign service, and, if any old surgeon-major think himself "degraded and humiliated" by being kept attached to a distinguished corps, and called upon to do exactly as his brother officers, and no more (especially if he have been any time at home), appoint him to the staff in the West Indies, and no doubt his sense of his derogatory position will at once vanish. Make retirements compulsory at fixed ages as before, and ten years' foreign service a *sine quâ non* for promotion to the rank of deputy-surgeon-general, which last should be a staff-appointment for the future and only tenable for *five years*, except under exceptional circumstances. Allow no officer to hold a special appointment at home for a longer period than three years. Allow retirements on medical certificates at twenty years on £1 *per diem*, and so apportion the higher to the junior ranks, that no officer will have to serve in the latter for a longer period than fifteen years. In this way, the unification scheme may be "made to accord with the personal interests of medical officers".

ARMY MEDICAL INSUBORDINATION.

Sir,—On receipt of your issue of the 17th instant, and perusal of the letter headed "Army Medical Insubordination", I procured the *Lancet* of the 10th instant and carefully read over the letter signed "Medical Officer". I agree with "United we Conquer, Divided we Fall", in condemning the letter to which he refers, though it is evident both writers are working in the same direction; both advocate an official and straightforward examination into the grievances of army medical officers, but "Medical Officer" writes in a style that is liable to misinterpretation. A superficial perusal of his letter would lead one to the conclusion that he was one of the "Whitehall Yard feather-bed gentlemen", who, secure of his own promotion, of good appointments, of healthy stations, was ready to sacrifice his less fortunate fellows and to advocate the "crushing" of those who ventured to come forward and speak the truth on behalf of themselves and their comrades. I do not think that such was his meaning; I believe that he wished real grievances to be properly represented and redressed, but he did not make the little word *if* sufficiently prominent.

If any body of officers in any department of the army whatever combined to get up fictitious statements of grievances, they would certainly deserve "to be crushed and their insubordination stamped out"; but it is well known to all impartial observers that the grievances of army medical officers are but too well founded; and the fact that they are so, and that they would, in the event of an impartial investigation by a Royal Commission, be proved to exist by unimpeachable testimony, seems to be the chief reason for the authorities declining to enter on the subject so long as they can fill up vacancies by third or fourth rate men from the Irish schools. They know that the result would be a readjustment and increase of both pay and pension, and the issue of orders and regulations which would put it out of the power of local administrators to move officers capriciously only to show their power or to serve their own friends. The departmental roster would again lie on the table of the army medical officer, and each officer would not only know his own position on it, but that of all his comrades—information which, rumour says, is not now attainable, except by exchange agents or army tailors, who have friends or relatives employed about the office.

Let us by all means have an open inquiry by a Parliamentary Commission. We court the most searching investigation, and do not fear the result. We know that our grievances are only too real; that constant moves, sophisticated and reduced allowances, forced contributions and subscriptions to band and mess, loss on furniture by compulsory sales, half-pay and loss of service during sickness contracted on service, and insufficient quarters, reduce our emoluments by at least 30 per cent. *per annum*, and place us in a worse position than the mechanic, whom the law protects from the injustice of his employer and permits to combine to represent grievances and to resist oppression.

Many an old surgeon-major curses the day he entered the service, and feels that, if he had been brought up to business or even a good trade, or if he had entered on general practice, he would, in less than the twenty-five years wasted in the army, have acquired a competency, established a business he could transmit to his children, at the same time enjoying their society and that of his parents and other relatives, and, lastly, retaining his health; instead of which, his reward for serving his country faithfully for a quarter of a century has been banishment during the greater portion of that period from all he held dear; a bare existence in bad climates and a ruined constitution, crowned by the allotment of a pension just sufficient to keep him and his wife out of the workhouse. Let young men hesitate before they enter on such a career. The matter is in their own hands, if they will only insist on not entering until a liberal pension is secured to all who have served twenty years, with a progressive yearly increase for further service up to twenty-five years; they will secure a regular flow of promotion during service, and promote their own interests more effectually than by any other course; they will also benefit their brethren in civil practice; for, as soon as the public services are paid liberally, fees will rise and the position of the profession generally will be improved.

I am, etc., TRUTH WILL PREVAIL.

THE ARMY AND NAVAL MEDICAL SERVICES.

SIR,—Perhaps what I am about to write will apply more to candidates for the army than for the navy; but, at any rate, it will touch on the interests of both medical services. To army candidates I would say, be certain of the number of vacancies open to you before you think of competing. Do not be induced to come up for examination by glowing promises or statements made by persons in authority, without being certain of the stability of those statements, but have the published number of vacancies in either service before you think of competing. The publication of such a list is the straightforward course for Government to pursue. In every other competitive examination, as far as I am aware, this is always done. I have it on good authority (that of a Master and of an ex-Dean of a College at Oxford) that it is the case in all such examinations at Oxford; and I believe it is so, also, in the case of Indian Civil Service examinations, examinations for appointments in the Forests department of India, in the Indian Medical Service, in the Home Civil Service, and in the combatant branches of the army. It is but fair to the competitors, at any examination, that they should have an opportunity of knowing and of judging of their chances of success. If a man be led into taking false notions of his prospects, through fictitious statements, he stands the risk of having a false stamp placed upon him should he not succeed; whereas, if accurate information be afforded him, he can either decline, in his present state of preparation, to be judged by the results of the examination at all, or can, with a full knowledge of his chances of failure, or the reverse, go up for it. During the years 1871-72-73, many young fellows came up for examination who, had they not been misled by the statements issued, would not have done so; and the result was an inexpressible feeling of disappointment when, on the last day of the examination (at which they had done as well as they expected, and at which they had secured a sufficiently high place to obtain them each an appointment had the official statements been true), they were told at University College Hospital, by an eminent professor, that "the Director-General is very sorry, but he is very much afraid that there will not be vacancies in the army for so large a number of candidates. He advises the unsuccessful candidates for the army to apply, as soon as they know the results of the examination, to the Director-General of the Navy, and that he may possibly be able to take them." This is the way capital is made out of overwrought and disappointed candidates. The navy is held out to them as a sort of salve; and their general exhaustion of mind, body, and often purse, are strong incentives to make it palatable for the time being. Here again, perhaps, we may find a reason for the frequent resignation of young medical officers in the navy. Some of them did not want to go into it, but came in under stress of circumstances. After a year or two, they find themselves recovered in health and, by economy, replenished in purse; and so they resign their commissions. Can it be wondered at that the navy is so badly off for surgeons? The position of an unsuccessful candidate who will not take the navy, but intends to present himself at another examination, is peculiarly troublesome to men situated as most young physicians and surgeons are. They would probably starve if they "set up" for themselves in practice so young, so all they can do is either assist some professional brother, or take some public appointment at a hospital or dispensary. But no physician, or surgeon, or hospital committee would employ, except very occasionally, a gentleman likely to leave in a month or two. To take an appointment as medical officer to a mail-steamer or other vessel is equally impossible, as a rule, for the same reason. Add to this the difficulty, amounting almost to impossibility, of studying on board ship, or as an assistant, and I think I have put my case pretty strongly, although I must allow that the resident surgeon at a hospital or dispensary enjoys fair advantages as regards study. It may be said that study is unnecessary for the examination: to this I answer that hosts of minutiæ slip from one's memory in practice, and require constant looking up if they are to be made use of. One other position is, I think, alone available, and that is a *locum tenens;* but I think it as detrimental to study as the others. I am, etc.,

September 11th, 1874. A ONCE UNSUCCESSFUL CANDIDATE.

NAVAL MEDICAL APPOINTMENTS.

BROWNE, Surgeon Thomas, to the *Himalaya*.
CREIGHTON, Staff-Surgeon Robert, to the *Himalaya*.
GRAY, Staff-Surgeon J., to the *Newcastle*.
WOOD, Surgeon J., to the *Crocodile*.

OBITUARY.

FREDERICK A. HOPE ROBSON, M.D., IVOR, BUCKS.

DR. ROBSON, who died on September 21st, in his fortieth year, was educated at Kensington Grammar School, and afterwards studied medicine at University College. In 1856, he became a member of the Royal College of Surgeons, and a Licentiate of the Apothecaries' Company in 1857. He entered the Peninsular and Oriental Company's service, in which he remained until he went into private practice at Shanghai. Here, for a few years, he enjoyed an extensive practice, and made many friends. During the occupation of the country around Shanghai by Changruron rebels, he was one of the most active of the volunteers in the protection of the British settlement; and for his good services was appointed surgeon to the volunteer corps. For the sake of his health, he resigned his practice and returned home in 1867. In England, for a time, he appeared to regain health and strength, and passed examinations for the M.D. of Brussels (1867), and the Fellowship of the Royal College of Surgeons (1869). He settled in practice, first in London, and subsequently, for the sake of a country life, at Iver. But the fatigues and anxieties of a country practice soon began to tell upon him; and, having been very much out of health for some time, was, on the eve of his departure for Scotland for a trip, suddenly struck down with paralysis, rapidly grew worse, and succumbed on the 21st September. His skill and his kind and gentlemanly bearing to his patients, poor as well as rich, endeared him to all; and at Ivor he is universally regretted. He leaves a widow and four children.

RICHARD THOMAS HUNT, M.R.C.S.E., L.S.A

MR. HUNT, who died at Disley, Cheshire, on September 22nd, in his 72nd year, of apoplectic paralysis, was born at Burford, Oxfordshire, in 1802 (September 30th). Both his grandfather James Hunt, and his father Thomas Hunt, were surgeons. The latter practised at Burford until 1802, when he was killed by a fall from his horse; the former was a celebrated surgeon in his day, and delivered an Introductory Lecture on Surgery at his house in London (34, Percy Street, Rathbone Place) in 1776.

Mr. R. T. Hunt was educated at the Gloucester Grammar School, whence he went to Manchester; and in 1819, while pupil of the late Mr. Wilson, he commenced his attendance at the then "Eye Institution", now "The Manchester Royal Eye Hospital". He then proceeded to the London Hospital; in 1825, became a Licentiate of the Society of Apothecaries, and a member of the Royal College of Surgeons of England in 1826. In 1827, he was appointed honorary assistant-surgeon to the Manchester Eye Institution, which post he held for fifteen years, when he was elected honorary surgeon, and acted as such until his sixtieth year, when he was appointed honorary consulting-surgeon, remaining so until his death. At the Lying-in Hospital, and at St. Mary's Hospital, Manchester, he fulfilled the duties of surgeon and consulting-surgeon (honorary) for twenty-seven years.

He commenced lecturing on the eye (his great speciality) at the old School of Medicine in Manchester in 1831, and continued his lectures uninterruptedly to the present year; that is, for over forty years.

Mr. Hunt was the author of *Cause of Death in Fever*. He contributed "Two Cases of Hæmorrhagic Tendency" in 1830 to the *Medical Gazette*, and "Treatment of Ptosis by Operation", besides many papers to other medical journals.

At the Manchester Royal Institution, he gave numerous lectures on the Eye in connection with drawing and the fine arts, which were very highly appreciated by artists and others. He was an accomplished drawer and painter in water-colours; his pen and ink sketches are well-known to all his friends.

Besides being an old member of the Manchester Medical Society, of which he was one of the founders, he was also an old member of the British Medical Association, of which, in conjunction with Sir Charles Hastings, he was one of the founders.

Mr. Hunt's death will be deeply felt by great numbers of the poor in Manchester and its neighbourhood; he was ever ready to give his best advice and attention to the poor without expectation of any fee or reward, and it may most truly be said that he died respected and beloved by all who knew him, either professionally or as a friend. He leaves a widow and seven children.

MR. ALDERMAN JESSOP of Sheffield, has purchased Brooklyn House, near that town, and presented it to the Hospital for Women, with an intimation that he will defray the cost of such new buildings upon the vacant ground adjoining it as may be required for the purposes of the hospital, which will amount to about £12,000.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

APPOINTMENTS OF EXAMINERS.—The following appointments have been made: *First M.B. Examination*—W. P. Hiern, M.A., and R. Apjohn, M.A. *Second M.B. Examination*—J. B. Bradbury, M.D., J. N. C. Davies-Colley, M.C. *Third M.B. Examination*—T. Clifford Allbutt, M.D., P. J. Hensley, M.D. *Master in Surgery*—John Wood, F.R.S., F.R.C.S., Christopher Heath, F.R.C.S. Dr. J. W. Ogle has been appointed assessor to the Regius Professor of Physic.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the quarterly meeting of the Council, on the 15th instant, the Council considered a communication from the late Dr. Anstie, dean of a School for the education of Ladies for the Medical Profession, requesting to know, amongst other matters, whether a list of gentlemen, proposed for teachers, would meet with their approval. The Council decided—That whilst they take no objection to the list of names submitted to them in the letter of the late Dr. Anstie as teachers in the proposed school, they are not prepared to imply a readiness to recognise a school which is incomplete, and respecting which they have so little information.

It was resolved, on the motion of Mr. Simon—That it be an instruction to the Committee on Bye-laws to prepare for consideration of the Council a formula for a new bye-law, under section 18, to define the privileges of the fellows and members respectively to hold meetings within the College, and to arrange the necessary provisions for holding such meetings.

Other motions by Mr. Erichsen, Mr. Henry Lee, Mr. Gay, and Sir James Paget were deferred to a future meeting.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 15th, 1874.

Buckland, Alfred George, New Zealand
Steavenson, William Edward, Addlestone, Surrey

The following gentleman also on the same day passed his primary professional examination.

Prowse, William Byass, London Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

BAILIEBOROUGH UNION, co. Cavan—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Crossbane Dispensary District. Application, 7th November, to Patrick Morgan, Hon. Sec., Lisnabantry, Virginia.

BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications, 31st instant, to the Honorary Secretaries.

BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Surgeon. Application, 4th November, to the Medical Board.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road—Assistant Surgeon. Application, 7th November, to the Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park—Resident Medical Officer, Application, 26th instant, to William Jones, Secretary, 24, Finsbury Circus.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY—Resident Medical Officer: £100 per annum, board, etc., or £120 per annum, lodging, etc., without board. Application, 16th Nov., to Howell Howells, Secretary.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Assistant-Surgeon: £150 per annum. Application, 27th instant, to J. Bullivant, Secretary, 58, Abbey Street, Derby.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon.

ENNISCORTHY DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.

FARRINGDON GENERAL DISPENSARY and LYING-IN CHARITY, Bartlett's Buildings—Physician. Application, 27th instant, to Samuel Green, Honorary Secretary, 10, St. Swithin's Lane.

FYLDE UNION, Lancashire—Medical Officer for the Blackpool District: £43:10 per annum.

HINCKLEY UNION, Leicestershire—Medical Officer for the Earl Shilton District: £30 per annum.

HORTON INFIRMARY, Banbury—Resident Dispenser and Secretary: £50 to £70 per annum, board and lodging. Application to G. A. Hewett, Hon. Sec.

HOSPITAL OF THE INSANE, Santiago, Chili—Head Physician: £600 per annum, board and lodging, and first-class travelling expenses. Application to the Secretary of the Chilian Legation in France, 54, Rue de Monceau, Paris.

JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer: £120 per annum, furnished rooms, etc. Applications to the Rev. P. A. Le Feuvre, Honorary Secretary.

KENT and CANTERBURY HOSPITAL—House-Surgeon: £80 per annum board, lodging, etc. Application, 30th instant, to Thomas Southee, Secretary.

KENT LUNATIC ASYLUM, Chartham, near Canterbury—Medical Superintendent: £600 per annum, house, etc. Application, 28th instant, to John Callaway, Clerk to the Committee, Canterbury.

LANCASHIRE GAOL, Lancaster Castle—Surgeon. Application, 31st instant, to Messrs. Birchall and Co., Deputy Clerks of the Peace, Preston.

LEOMINSTER DISPENSARY—Medical Officer.

LINCOLN MEDICAL INSTITUTE of the M. U. ODD FELLOWS—Medical Officer: £150 per annum, house, and 10s. 6d. each case of Midwifery. Applications, 1st November, to Mr. Samuel Gadd, 347, High Street, Lincoln.

MANCHESTER ROYAL LUNATIC HOSPITAL—Assistant Medical Officer: £120 per annum to commence, apartments, board, etc. Application to G. W. Mould, Resident Medical Superintendent.

NEWMARKET UNION—Medical Officer for the Workhouse: £50 per annum and midwifery fees. Applications, 26th instant, to Thomas Ennion, Clerk.

NORTH WALES COUNTIES LUNATIC ASYLUM—Medical Superintendent: £350 per annum to commence, house, coals, gas, vegetables, and washing.

ROYAL FREE HOSPITAL, Gray's Inn Road—Junior House-Surgeon. Application, 28th instant, to James S. Blyth, Secretary.

ST. GEORGE DISPENSARY, Mount Street—Resident Medical Officer: £150 per annum, with residence. Application, 31st instant, to G. H. Leah, jun., Secretary, 73, Park Street, W.

SCHOOL OF PHYSIC, Dublin—Professor of Chemistry.

SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich—Visiting Surgeon. Application, 7th November, to H. C. Burdett, Secretary.

STRANORLAR UNION, co. Donegal—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Stranorlar Dispensary District: £100 per annum, and fees. Application, 26th instant, to John Gunning, Hon. Sec.

SURREY LUNATIC ASYLUM, Brookwood—Assistant Medical Officer.

TOWCESTER UNION—Medical Officer for the Blakesley District: £60 per annum, and fees. Application, 26th instant, to W. Whitton, Clerk.

UNIVERSITY COLLEGE, London—Professor of Comparative Anatomy and Zoology. Applications, 31st inst, to John Robson, B.A., Secretary to Council.

WALSALL UNION, Staffordshire—Medical Officer for the Workhouse and the Borough District: £80 and £45 per annum respectively.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, Soho—Honorary Surgeon.

YORK COUNTY HOSPITAL—House-Surgeon: £100 per annum, board, and lodging. Application, 31st instant, to Robert Holtby, Secretary, 5, New Street, York.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

ADDERLY, John, M.D., appointed Resident Medical Officer to the Fever Hospital, Cork.

ARMSTRONG, Henry G., M.R.C.S.Eng., appointed House-Surgeon to the Royal Berkshire Hospital, Reading, *vice* R. Galpin, M.R.C.S.Eng., resigned.

*BEATTY, T. Carlyle, jun., L.R.C.P.Ed., appointed House-Surgeon to the Seaham Harbour Infirmary.

DIXON, J., M.B., appointed Surgeon to the French Hospital.

FENN, Ernest Harrold, M.R.C.S.Eng., appointed Senior House-Surgeon to the Middlesex Hospital.

GARD, William J., M.R.C.S.Eng., appointed Junior Surgeon to the Royal Albert Hospital, Devonport, *vice* J. Wilson, M.D., deceased.

*GAMGEE, Arthur, M.D., appointed Assistant-Physician to the General Hospital for Sick Children, Manchester, *vice* J. Gwyther, M.B.

*GILL, Henry C., M.R.C.S., appointed Medical Superintendent of the York Lunatic Asylum, *vice* F. Needham, M.D.

HUNTER, W., M.B., appointed Assistant Medical Officer to the Barnhill Lunatic Asylum and Poor House, Glasgow.

*MCKENDRICK, John G., M.D., appointed Professor of Physiology at the Edinburgh Royal Veterinary College.

SMITH, Henry B. L., M.B., appointed House-Surgeon to the Dorset County Hospital, *vice* — Davidson, resigned.

TURNER, Robert, M.D., appointed Resident Medical Officer to the Infirmary, Newport, Monmouthshire, *vice* G. A. Davies, L.R.C.P., resigned.

*WILLS, Thomas M., L.K.Q.C.P., elected Honorary Surgeon to the Bootle Borough Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

MARRIAGE.

BARNES—SNELL.—On October 15th, at St. Mary's, Stoke Newington, by the Rev. T. Jackson, rector, Edgar G. Barnes, M.D.Lond., of Eye, Suffolk, to Emma Elizabeth, third daughter of the late James P. Snell, of Holloway.

DEATHS.

DUFFIN, Edward Willson, M.D., F.R.C.S., in the 75th year of his age, at 18, Devonshire Street, Portland Place, on October 17th.

GOODALL.—On September 26th, at Clay Cross, Derbyshire, twelve days after severe injuries received during the performance of his professional duties, Richard Thomas Goodall, Surgeon, aged 40, deeply lamented.

WILSON, Frederick Wm., M.R,C.S.Eng., at Forest Hall, Long Benton, Northumberland, aged 80, on October 8th.

NORFOLK AND NORWICH HOSPITAL.—Notice has been given that, at the next quarterly meeting, it will be moved "That a Committee be appointed to inquire and report as to the necessity of appointing a superintendent of hospital nurses, and whether a combined system of hospital, private, and district nursing could be advantageously adopted in this, as it has been in other, large towns."

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. P. V. Gowlland will show a specimen of a rare form of Polypus of the Rectum. Mr. Francis Mason: A Case of Successful Operation on Webbed Fingers: and a Case of Primary Infecting Sore on Thigh. Dr. J. Milner Fothergill, "On the Relation of Disease of the Heart to the Diseases of the Respiratory Organs".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Bakewell, "Abdominal Aneurism of unusual size"; Mr. Lawson Tait, "Successful removal of Large Fibro-myoma of the Fundus Uteri"; Mr. Barwell, "Recovery after removal of Foreign Body impacted for twenty months in Female Pelvis".

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

F.R.S.—As a matter of fact, THE BRITISH MEDICAL JOURNAL, we understand, circulates 1,500 copies weekly more than the *Lancet*. Which is the best medium of publication is, we imagine, deducible from figures.

DR. W. HINDS (Birmingham).—We shall be happy to receive any suggestion.

SURGEON-MAJOR.—A list of all medical appointments, as they become vacant, is already published, so far as we become aware of them.

MR. T. LAWRENCE READ.—The Royal Albert Asylum for Idiots at Lancaster.

MR. G. MEADOWS (Darlington).—1. The Medical Act came into operation on January 1st, 1859. It does not actually order that all students shall pass a preliminary examination; but the General Medical Council, appointed under the Act, have recommended strongly the universal institution of such examination, so as to prove the attainment of a certain amount of general knowledge, and this recommendation has been carried into effect by all the Medical Examining Boards. 2. All Acts of Parliament are to be obtained of Messrs. Spottiswoode, Little New Street, E.C. 3. Ask for the Medical Act (1858).

TREATMENT OF BRONCHITIS AND ASTHMA.

SIR,—In answer to "Inquirer", I would state that the "usual doses of the various drugs mentioned" are as follows: ℞ Potassii iodidi gr. v; ammoniæ carbonatis gr. v; tincturæ belladonnæ min. xv; spiritûs chloroformi min. v; vini ipecacuanhæ min. v; infusi gentianæ ℥i. This is given for a dose. It is as well to mention that I never read Tanner's *Index of Diseases*, nor Dr. Headlam Greenhow's work, so that the above is quite original. I found it out entirely from my own observation.

In conclusion, I would add that "Inquirer" might have subscribed his real name, and that Dr. Boulton (my "friend") is an utter stranger to me.

I am, etc., W. H. SPURGIN, M.R.C.S., L.S.A.

Maryport, October 17th, 1874.

GERMAN VACCINATION REGULATIONS.

WE are much obliged to Dr. Hegewald (Meiningen) for his courteous attention to the request of our correspondents. The copy of regulations for vaccination in the German Empire has been forwarded to Dr. Munro. We have a copy at the office for J. C. L. if he will write or send for them.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MEDICAL TITLES.

SIR,—The subject of medical titles now under discussion in your JOURNAL is one of considerable interest both to the profession and the public, and, with your permission, I should like to say a little upon the question.

The assumption of the title of "Dr." by licentiates of the three Colleges of Physicians of London, Dublin, and Edinburgh, is an abuse of modern origin. It has become very general and very obtrusive since the year 1862, and is simply the natural result that any one with any foresight might have predicted of the cruel and unjust regulations which practically closed for ever the doors of a certain northern university upon the registered practitioners of this kingdom. Little or no abuse of the kind complained of existed before; and when a qualified man sought a degree, he went to the seat of the University, passed an examination creditable and honourable to himself, and came away with a title to which he had every legitimate right. Now, no such opportunity exists. The more modern assumption of the title by ungraduated licentiates has given rise to a good deal of ill feeling amongst the graduates of the Universities, who feel themselves naturally deeply aggrieved and injured after the prolonged and expensive course of study to which they have been subjected, and in the use of which titles they should by every principle of equitable right have been protected. The number of foreign graduates, too, has been within the last few years considerably increased, and more particularly since the year 1862. Cause and effect are here as apparent as noon-day. Stop the supply of a legitimate demand, and the result is apparent. Here is the *fons et origo mali*. Hundreds of practically qualified and well deserving men, who have already given ample proof of their knowledge before one, two, or three examining boards of Great Britain (any one of which requires a curriculum and examination equal to that of M.D., though by a singular anomaly they are deprived of the title), find a degree in medicine essential or desirable; they naturally look about them in their own country, and find the portals of every University hopelessly barred against them by the residence clauses of one or two years (which may be well enough to youths or young men whose time is of no value), which would simply ruin the older and established ones; for no one can leave an established practice for that time, with the competition of the present day, without losing it, and necessarily sacrificing the position and prospects which he has to gain by years and years of hard work, to say nothing of the hundreds of pounds usually invested in it. Almost all these men would with pleasure fly to the arms of any University at home who would receive them without residence, pass any examination, pay any fees, and do credit to their *Alma Mater*. But whilst nothing but the barricade and practically insuperable obstacles are presented to them, it is unreasonable to suppose that they will abandon their legal privileges of assuming any title so long as they are on the *Medical Register*. In fact, men do it and will do it under present circumstances, and they are less to be blamed than the cruel and unjust measures which force them to act in this way. Carry out the wholesome principle of removing the cause, and the effect will cease.

The regulations of the University of St. Andrew's for senior and registered practitioners are totally inadequate to meet the demand: they are, moreover, cruel, unfair, and unjust. Why should a man be deprived of a degree until the best years of his life have passed away, and with them the energy, hope, and strength of his youth have begun to decay? This regulation is the most cruel of all, and it practically means that he must be forty-five years of age; for I recently wrote to them when I was over forty years of age, and I found that their lists of applicants were full for years to come. By this time the very need and stimulus of a degree have gone. The practitioner, after having struggled through the heat and burden of the more oppressive part of the day, has attained a position in which he may regard a degree with indifference. It can be little or no aid to him, and, knowing how to estimate its value to a nicety, he prudently refuses to submit to such terms.

I turned my attention to foreign countries, and there found Faculties who had the power and were willing to confer the degree of M.D. upon me, not for a mere pecuniary consideration, but after an examination which would have done credit to the University of London. Thither I would direct many of my professional brethren who need degrees, and there they will meet with justice and reasonable treatment. Since my graduation, I have been treated with the greatest deference both by the profession and the public: I have been thought equally as well of as if I possessed the best British degree. The degree of M.D. is current throughout the civilised world, and it was only secondarily introduced into England; and I am advised that no power or laws will take my foreign degree from me so long as I am on the *Medical Register*, with other qualifications, and I may say that I possess the *three* London ones. The Universities of Great Britain are the servants of the nation, and should be made to conform to the present age and its requirements; and if the profession were united and exerted their power, British Universities might in a short time be brought to their senses. The profession think too much of degrees, and the public too little; and we live in an age of free trade, where injustice, conspiracy, and monopoly are not usually tolerated.

October 1874. I am, etc., COSMOPOLITAN.

SIR,—When I read the letter of Scrutator in the JOURNAL of October 10th, it put me in mind of the Fable of the *Cat and Mice*. It may be proposed to deprive Licentiates of the College of Physicians of Edinburgh of their rights of calling themselves Doctors, but it is very questionable whether it can be carried out. If such a petition should be made, as proposed, it would be but fair that that those who should lend their names to it should be known to the medical profession.

It seems strange that the College of Physicians of Edinburgh should be always questioned about its rights, and nothing said of the King and Queen's College of Physicians of Dublin, whose Licentiates also take the title of Doctors.

It is not long ago that a County Court Judge decided that Licentiates of the College of Physicians of Edinburgh were not entitled to recover for medicine; but the Council of the College, not being satisfied, sought the opinion of Sir George Jessel and Mr. J. H. Lloyd, which was in favour of the College.

If Scrutator and the County Court Judge were correct in their opinions, a Licentiate of the College of Physicians of Edinburgh could neither claim for medicine supplied, nor entitle himself Doctor, and the consequence would be that the diploma would not be worth having. I am, etc.,

October 1874. JUSTICE.

SIR,—In reply to Scrutator's strictures on the use of the prefix Dr. (which does not necessarily mean M.D.) by the L.R.C.P.E.s, allow me to inform him that in so doing, and not styling themselves physicians, which they have a perfect right to do, they are taking a much lower position in the estimation of the public. He will find, if he consult his dictionary, that the title physician means doctor, not necessarily M.D. The public, however, settles the value of a man, not by his title, even though it be M.D., and frequently places very far in advance (and rightly too) the L.R.C.P.E. or the L.S.A. Scrutator would be better employed in seeking to rise in the estimation of the inhabitants of his village, than in trying to stir up a question upon which quite enough has already been written by the possessors of the mighty and magic M.D. I am, etc., L.R.C.P.E.

Sir,—The remarks made by the two correspondents in your issue for October 10th, respecting the use of the title of "Dr." by L.R.C.P.Ed., are partly just, but not wholly, I think. The fault, originally at least, lies most with the Royal College of Physicians of Edinburgh, as it distinctly encouraged the use of the title by its licentiates. Some years ago, I wrote to this College upon the matter, and was informed that, although the licentiates were not legally qualified to use the title of "Dr.", it was generally considered that they should be so addressed. The King and Queen's College of Physicians in Ireland either does, or professes to, give the title to its licentiates. The London College of Physicians is the only one that forbids it. Many men a few years ago obtained the diploma of L.R.C.P.Ed., believing that by so doing they were entitled to be designated "Dr."; and it is very difficult for those who have once used the title to discontinue it, more especially as their brother practitioners trade upon their error by informing every one that they are wrongfully using the distinction.

There is another side to the question. Those at least who obtain the diploma of L.R.C.P.Lond., do so thinking it a better diploma than either the M.R.C.S. or L.S.A., or both put together; and no one who has been up for all these diplomas will doubt the great superiority of the first examination. It certainly appears unfair that they who have obtained the first have no way of showing that they are a little in advance of a M.R.C.S., etc., in the same way as it is unjust that a M.D. cannot distingush himself from a L.R.C.P.; and the same remark holds good respecting men with only one qualification.

The value of different degrees also varies greatly; and I think there can be no doubt that the L.R.C.P. examination of the present day is better than the M.D. examination of the Scottish Universities twenty years ago.

Again, there is no English University, excepting London, which confers its degrees without residence; and many men who have taken out their courses in London, cannot afford to go elsewhere to study, and, consequently, cannot obtain their degree, whatever their abilities may be, and however much they may desire to do so.

Seeing that the fault originated at least with two of the Colleges, and not with the individuals who obtained their licence, it seems to me desirable that all Licentiates of Colleges of Physicians in actual practice should sign a petition to one of the British Universities, to be admitted for examination for the degree of M.D., and that afterwards it should be distinctly understood that no L.R.C.P. should be allowed to use the title of Dr. unless he be M.D.

I enclose my card, and am, etc., A Country Practitioner.

Dr. Bismarck.

At the public dinner during the recent meeting of German naturalists and physicians, an amusing song was sung by Dr. Meyer, on "Dr. Bismarck, practical physician, surgeon, and accoucheur". We quote some of the verses in the original German.

"Ja, er ist der Arzt, der grosse,
Einer feinern Diagnose
Hat sich nie ein *Arzt* erfreut,
Lasst den Practicus uns preisen,
Der gezeigt durch *Blut* und *Eisen*
Sich als erster *Therapeut*.

"Und wenn's heisst erst *operiren*
Kann mit ihm wohl concurriren
Weder Wilms noch Langenbeck,
Wächst ein *Krebs* wo, sonst ein Schaden,
Schneidet er ihn sonder Guaden
Gleich mit scharfen Messer weg.

"Wier er klug weiss zu vermeiden
In's gesunde Fleisch zu schneiden
Hat er meisterlich docirt;
Nur die wilden Excrescenzen,
Parasit'sche Existenzen
Sind es, die er exstirpirt.

"Auch in Nöthen und Gefahren
Ist nicht minder er erfahren
Arte Obstetriciâ,
Denn von alten Bund entbunden
Der uns lang genug geschunden,
Hat er die Germania.

"Als sie schien fast zu vergehen,
Als sie lag in schweren Wehen,
Als sie stöhnte tief und litt,
Hat er sie gar gut gebettet,
Hat die Theuerste gerettet
Durch den kühnsten *Kaiserschnitt*."

We subjoin a literal translation.

"Yes, he is the physician, the great one. No physician has enjoyed a finer power of diagnosis. Let us then praise the doctor, who, by means of blood and steel, has shown himself to be a therapeutist of the first rank.

"And when he is called on to operate, neither Wilms nor Langenbeck can compete with him. Wherever a cancer grows, or a morbid growth, he cuts it away unsparingly with a sharp knife.

"How expert he is in abstaining from cutting into healthy flesh, he has shown in a masterly way. It is only the irregular excrescences, the parasitic existences, that he extirpates.

"In necessity and danger, too, he is no less experienced in the obstetric art: for he has delivered* Germany from the old *Bund*, which oppressed us long enough.

"When she seemed to be almost lost, when she lay in severe pain, when she groaned deeply with suffering, he safely brought her to bed, and delivered the much loved one by the most expert Cæsarean section (*Kaiserschnitt*)."

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* *Entbinden* means both to deliver or set free, and to deliver a woman.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

A Caution with Regard to Certificates.

The *Charity Organisation Reporter* for October 14th contains a narrative which those who are called upon to give certificates would do well to ponder.

"The following case, which recently occurred, shows how benevolent persons who cannot themselves investigate the case of an applicant who may be evidently sick and apparently in want are liable to be imposed on. A man, who gave the name of John Lewis, called at the house of a member of the Marylebone Charity Organisation Committee with two papers: (1) a certificate from a medical man in the neighbourhood that he had had an attack of ague, and that residence at the sea-side in a convalescent hospital would be of great benefit to him; and (2) a memoranda from one of the clergy of the district that he had read the doctor's certificate; and, believing the statement to be true, recommended the case for a convalescent home. The gentleman took a memorandum of the applicant's story, and then, giving him a ticket, directed him to apply to the office of the Committee. As the man did not apply, inquiries were made, when it turned out:

"1. That the address was a false one, and the Society have been unable to trace the man.

"2. That the clergyman knew nothing of the man or his case, and had at first refused to have anything to do with signing his name; but that, pressed by the man's importunity, and considering that the certificate of a doctor residing in the parish must be genuine, he consented; but 'desired the man *not to use the paper he wrote for him for begging from others*'. And:

"3. That the man was 'a perfect stranger' to the doctor who gave him the certificate, but gave the name of one of his patients as having recommended him to him; and that he, too, was reluctantly over-persuaded to give what was no doubt a perfectly correct *medical statement* of the man's case, but 'distinctly told him *it must not be used for begging purposes*'.

"Our readers will no doubt agree that the doctor is right when he 'much fears that the man's sole object was to beg'; and we are afraid that he has been only too successful."

The Briton Life Assurance Company.

Sir,—Having insured my life some years ago in the Briton Medical and General Assurance Company, I feel somewhat uneasy, it not having declared a *bonus last year, as promised*. I shall be much obliged if you can give me any information as to its affairs. I am, etc., Evan Williams, Surgeon.

Llangifni, October 6th, 1874.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Oct. 19th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Hampshire Telegraph; The Sheffield and Rotherham Independent; The Standard; The Portsmouth Times; The Armagh Guardian; The Morpeth Herald; The Bradford Observer; The Stroud News and Gloucestershire Advertiser; The Glasgow Herald; The Liverpool Mercury; The Liverpool Porcupine; The Scotsman; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. W. T. Gairdner, Glasgow; Dr. W. Marcet, Cannes; Caius; Dr. J. Hughes Bennett, Edinburgh; Dr. Meredith, Wellington; Mr. T. M. Wills, Liverpool; A Country Practitioner; Dr. Hegewald, Meiningen; Dr. Morton, Glasgow; Our Paris Correspondent; Dr. Wardell, Tunbridge Wells; Mr. T. Vincent Jackson, Wolverhampton; Dr. Robert Jolly, Birmingham; Dr. H. Barnes, Carlisle; An Old Member; Dr. Kelly, Taunton; Mr. A. Godrich, Fulham; Dr. J. Milner Fothergill, London; Dr. W. A. Richards, Winchester; The Secretary of the Obstetrical Society; Dr. Dougall, Glasgow; Mr. D. de Berdt Hovell, Clapton; Dr. Ward, Grange-over-Sands; Mr. Stephen Clogg, East Looe, Cornwall; The Vice-Dean of the London Hospital; Dr. Bradbury, Cambridge; Dr. William Hinds, Birmingham; Mr. G. W. B. Wilson, Newcastle-upon-Tyne; Dr. George Johnson, London; Mr. T. C. Beatty, jun., Seaham Harbour; Mr. Wm. Fairlie Clarke, London; Mr. Eastes, London; Dr. Munro, Cupar-Fife; Dr. J. Crichton Browne, Wakefield; Mr. W. H. Spurgin, Maryport; Mr. R. Branwell, Brighton; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Graily Hewitt, London; Mr. E. H. Fenn, London; Dr. Edis, London; Truth will Prevail; Dr. Macgill, Fermoy; Mr. Dacre Fox, Manchester; Mr. Mitchell Wilson, Chatteris; Dr. Drummond, Royton, A Correspondent; Mr. Ashburton Thompson, London; Mr. T. Collier, Ripon; Our Dublin Correspondent; Mr. E. J. Adams, Bethnal Green; The Secretary of the Clinical Society; Dr. B. W. Foster, Birmingham; Mr. E. Owen, London; Mr. S. Wood, Shrewsbury; Mr. Searson, Manchester; Mr. Gambier, London; Dr. Stephen, Fettercairn; Dr. Gairdner, Glasgow; Mr. R. B. Holland, Matlock; Dr. Miller, Londonderry; Mr. W. Allard, Tewkesbury; An Assistant Physician, London; Mr, Poole, London; Mr. Wright Baker, Derby; etc.

BOOKS, ETC., RECEIVED.

On Therapeutic Progress in Relation to Therapeutic Methods. By J. Burney Yeo, M.B. London: Harrison and Sons.

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ALL OFFICINAL PREPARATIONS sold or dispensed by this Company are made strictly in accordance with the British Pharmacopœia, and their strength and purity may be implicitly relied on.

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GLACIAL EXTRACT of ALOES. This will be found a most valuable Medicine. Dose 1 or 2 grains. Can be safely administered when any other form of Aloes is inadmissible. Supplied in the form of Pills (pearl-coated), containing 1 grain in each. Price 4s. per Gross.

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GELSEMINUM SEMPERVIRENS. Largely used in the United States for Facial Neuralgia, Nervous Headache, Toothache, etc. Recently employed with great success at the Queen's Hospital, Birmingham. See *British Medical Journal*, May 2nd. Supplied in the form of Fluid Extract and Tincture. Also GELSEMININ, the active principle of the root.

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"It has long been felt that a simple, concise and popular work on medicine, adapted to the wants of non-professional persons in India, was much needed, and this Manual of Family Medicine by Surgeon-Major Moore, to which the prize offered by the Government of India has been awarded, appears to us to be well calculated to supply it. In a country like India....where it must be constantly occurring that officers belonging to the various Indian departments and their families, scattered over all parts of the country, are far removed from Medical men, the possession of a work of this kind—practical and to the point, and free from technical terms, must prove of the greatest assistance. Persons proceeding to India or a tropical climate, who are likely to be so circumstanced, could not do better, we think, than provide themselves with a copy of this book, and with one of the medicine chests containing the medicines and instruments recommended for use in this work, which is not only a judicious guide," etc.—Vide *Lancet*, September 19th, 1874.

PEPSINA PORCI, 7s. per oz. PEPSINE WINE, 4s. 8d. per lb. CHLORODYNE, 9s. per lb.

Hospitals, Dispensaries, and other Public Institutions supplied on liberal terms. Price Lists, etc., on application to the Secretary.

GENERAL APOTHECARIES' COMPANY, LIMITED,

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REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

V.—Antagonism between Sulphate of Atropia and Meconate of Morphia. *(Continued.)*

The fatal dose of meconate of morphia and sulphate of atropia, as well as the physiological action of each, both for the rabbit and the dog, having now been determined, the next point was to ascertain whether or not they possessed any antagonistic action. This part of the inquiry is divided into two parts; viz., how far does sulphate of atropia influence the effects of meconate of morphia when given, first, *after*, and, secondly, *before* that drug?

A.—*On Rabbits.*

a.—Sulphate of Atropia given after a Fatal Dose of Meconate of Morphia.

Twenty-one experiments were made on rabbits, in which the sulphate of atropia was administered at various intervals of time after a fatal dose of meconate of morphia. These experiments are contained in the following table.

Table XXVII.—*Showing the Influence of Sulphate of Atropia, when given after a Fatal Dose of Meconate of Morphia, in Rabbits.*

No.	Weight of Rabbit.	Interval of time aft. Meconate of Morphia when Sulphate of Atropia given.	Dose of Meconate of Morphia in grains.	Dose of Sulphate of Atropia in grains.	Result.	Remarks.	State of the Pupil.
315	3 lbs. 10 oz.	Simultaneously	10	¼	Died in 110 minutes	Convulsions; no symptoms of atropia	Pupil became contracted; did not afterwards dilate.
316	3 lbs. 8 oz.	½ min.	10	½	Died in 115 minutes	Ditto, ditto	
317	3 lbs. 11 oz.	1 min.	10	¾	Died in 138 minutes	Very slight convulsions; pupil not contracted	
318	3 lbs. 9½ oz.	1½ min.	10	1	Died in 136 minutes	Ditto, ditto	
319	3 lbs. 10 oz.	2 min.	10	1¼	Died in 140 minutes	Ditto, ditto	
320	3 lbs. 9½ oz.	2½ min.	10	1½	Recovered after illness of 3h.	Killed by same dose of meconate of morphia 6 days afterwards in 110 minutes	Pupil never became to any great extent contracted, but retained normal size.
321	3 lbs. 9 oz.	2¾ min.	10	,,	Recovered after illness of 3½ hours	Recovered from same dose 6 days afterwards	
322	3 lbs. 7 oz.	3 min.	10	,,	Recovered	Killed by same dose 6 days afterwards in 90 minutes	
323	3 lbs. 9 oz.	3½ min.	10	1¾	Died in 6 h.	Died of congestion of lungs	
324	3 lbs. 8 oz.	4 min.	10	,,	Died in 2 h.	Slight convulsions	
325	3 lbs. 7½ oz.	5 min.	10	,,	Died in 2½ h.	Ditto	
326	3 lbs. 9 oz.	5½ min.	10	,,	Recovered	Recovered from same dose 6 days afterwards	
327	,,	5¾ min.	10	,,	Died in 3 h.	Slightly convulsed	
328	3 lbs. 12 oz.	6 min.	10	1¾	Died in 3½ h.	Slightly convulsed	Pupil was contracted before sulphate of atropia was given; it became dilated in about two hours.
329	3 lbs. 11½ oz.	7 min.	10	1½	Recovered after illness of 8 hours	Died from same dose 6 days afterwards in 115 minutes	
330	3 lbs. 10½ oz.	8 min.	10	1¾	Died in 6 h.	...	
331	3 lbs. 9½ oz.	9 min.	10	,,	Died in 2½ h.	Died suddenly, apparently by syncope	
332	,,	9½ min.	10	,,	Died in 5 h.	Congestion of lungs	
333	3 lbs. 8 oz.	10 min.	10	,,	Recovered	Died from same dose 6 days afterwards in 108 minutes	
334	3 lbs. 9 oz.	12 min.	10	1½	Died in 4 h.	Congestion of lungs	
335	3 lbs. 8½ oz.	15 min.	10	1¾	Died in 3 h.	,,	

The above table shows that, out of twenty-one experiments in which what was held to be a fatal dose of meconate of morphia was followed by a dose of sulphate of atropia, six recovered. When the crucial test was applied to these six rabbits six days later, by injecting ten grains of meconate of morphia without sulphate of atropia, four died, and two recovered. In the case of the latter, the dose of ten grains cannot be considered a fatal dose. In all cases, there could be no doubt that the subsequent injection postponed the fatal issue, if it did not save life. As the sulphate of atropia resembles meconate of morphia in producing convulsions when given in large doses, larger doses of the former than one grain and three-quarters were not given in this set of experiments; but it appeared, from watching the experiments, that the sulphate of atropia favoured the chance of recovery after a fatal dose of meconate of morphia, by causing contraction of the blood-vessels. After sulphate of atropia, the pupil (which was contracted by a dose of meconate of morphia previously given) slowly dilated; and in those cases in which doses of sulphate of atropia, amounting to one and a half or one and three-quarters of a grain, were given within six minutes after the meconate of morphia, the pupil remained nearly of its normal size before the experiment. It was observed also that the vessels of the ear, turgid with blood after the large dose of meconate of morphia, contracted considerably about eight or ten minutes after the introduction of the sulphate of atropia.

b.—Sulphate of Atropia given before a Fatal Dose of Meconate of Morphia.

In the following eleven experiments, the sulphate of atropia was given in one-and-three quarter or two-grain doses before the meconate of morphia. When the latter was introduced in certain of the cases, the pupil was widely dilated. The results are briefly recorded in the following table.

Table XXVIII.—*Showing the Influence of Sulphate of Atropia when given before a Fatal Dose of Meconate of Morphia in Rabbits.*

No.	Weight of Rabbit.	Interval of Time between Sulphate of Atropia and the Meconate.	Dose of Sulphate of Atropia in Grains.	Dose of Meconate of Morphia in Grains.	Result.	Remarks.	State of the Pupil.
336	3 lbs. 11 oz.	20 min.	1¾	10	Died in 2½ hours	Slightly convulsed	Dilated
337	3 lbs. 9 oz.	12 min.	1¾	10	Recovered	Recovered from same dose 6 days afterwards	Ditto
338	3 lbs. 10½ oz.	10 min.	1¾	10	Died in 3 h.	...	Ditto
339	3 lbs. 11 oz.	9 min.	1¾	10	Died in 4 h.	...	Ditto
340	3 lbs. 12 oz.	8 min.	2	10	Recovered	Died from same dose in 2 hrs., 6 days afterwards	Ditto
341	3 lbs. 11½ oz.	7 min.	2	10	Recovered	Died from same dose in 2¼ hrs., 6 days afterwards	Ditto
342	3 lbs. 3 oz.	6 min.	1¾	10	Recovered	Recovered from same dose 6 days afterwards	Ditto
343	3 lbs. 4½ oz.	4½ min.	1¾	10	Recovered	Ditto, ditto	Slight contraction
344	3 lbs. 9 oz.	3 min.	2	10	Recovered	Died from same dose in 2½ hrs., 6 days afterwards	Not affected
345	3 lbs. 8 oz.	2 min.	1¾	10	Died in 8 h.	Congestion of the lungs	Not affected
346	3 lbs. 8½ oz.	Simultaneously	1¾	10	Recovered	Died from same dose in 3 hrs., 6 days afterwards	Not affected

It appears from this table that, out of eleven instances in which a dose of sulphate of atropia had been given previous to what was held to be a fatal dose of meconate of morphia, seven recovered—a larger proportion than when the meconate of morphia was given first. Of these seven cases, four died by the crucial experiment of giving meconate of morphia with sulphate of atropia, while three recovered. These numbers are so close that, even although it were admitted that sulphate of atropia modified the symptoms produced by meconate of morphia, and postponed death, it might be objected that, in those cases of recovery, ten grains of meconate of morphia was not a certainly fatal dose. Eighteen rabbits were therefore collected, of as nearly the same weight as possible; and two sets of experiments were made, in which larger doses of meconate of morphia were employed. In nine cases, the meconate of morphia was given first, and in the remaining nine it was given last. The results are set forth in the following table.

TABLE XXIX.—*Showing the Influence of Sulphate of Atropia on Large Doses of Meconate of Morphia in Rabbits.*

No.	Before or After.	Weight of Rabbit.	Time Meconate of Morphia given, before or after Sulphate of Atropia.	Dose of Sulphate of Atropia in Grains.	Dose of Meconate of Morphia in Grains.	Result.	Remarks.
347	Meconate of Morphia given *before* Sulphate of Atropia	3 lbs. 10 oz.	5 min.	1¾	11	Died in 60 min.	In all of these cases (347-364) death was postponed. The pupil was slightly dilated in Nos. 350 and 354. It retained its usual size in the others. Death was always preceded by deep coma. No. 359 died from same dose in 90 min., 6 days thereafter.
348		3 lbs. 8 oz.	5 min.	1¾	11¼	Died in 80 ,,	
349		3 lbs. 9 oz.	4 min.	1¾	11½	Died in 79 ,,	
350		3 lbs. 9½ oz.	4½ min.	1¾	12	Died in 90 ,,	
351		3 lbs. 9 oz.	5 min.	2	12¼	Died in 105 ,,	
352		3 lbs. 8¾ oz.	5 min.	2	12½	Died in 105 ,,	
353		3 lbs. 8½ oz.	5 min.	2	12	Died in 110 ,,	
354		3 lbs. 8 oz.	4¾ min.	2	12	Died in 110 ,,	
355		3 lbs. 9 oz.	5 min.	1¾	12	Died in 110 ,,	
356	Meconate of Morphia given *after* Sulphate of Atropia	3 lbs. 9½ oz.	5 min.	1¾	11	Died in 150 min.	
357		3 lbs. 9 oz.	4 min.	2	11¼	Died in 110 ,,	
358		3 lbs. 9¼ oz.	4 min.	2	11½	Recovered	
359		3 lbs. 7 oz.	4¾ min.	2	12	Died in 120 min.	
360		3 lbs. 6 oz.	5 min.	2	12¼	Died in 122 ,,	
361		3 lbs. 11 oz.	5 min.	1¾	12½	Died in 76 ,,	
362		3 lbs. 11½ oz.	4 min.	1¾	12	Died in 90 ,,	
363		3 lbs. 11¾ oz.	5 min.	1¾	12	Died in 100 ,,	
364		3 lbs. 11¼ oz.	5 min.	1¾	12	Died in 112 ,,	

In this series of experiments, only one, No. 358, recovered; the others all died in periods varying from sixty to one hundred and fifty minutes. This clearly shows that ten grains of meconate of morphia may be regarded as a minimum fatal dose for a rabbit weighing 3 lbs. 6 oz., or thereabouts. A few may recover from this dose without the aid of sulphate of atropia; but none have recovered, with the exception of 358, either with or without sulphate of atropia, after a dose of eleven grains of meconate of morphia and upwards. It therefore appears that sulphate of atropia is antagonistic to meconate of morphia in rabbits in a limited area, so far as the latter is concerned. It now became a subject of inquiry to ascertain the result of giving larger doses of sulphate of atropia with somewhat smaller doses of meconate of morphia. Ten experiments were made on this point.

TABLE XXX.—*Showing the Influence of Large Doses of Sulphate of Atropia on Meconate of Morphia in Rabbits; or the Influence of Meconate of Morphia on Large Doses of Sulphate of Atropia.*

No.	Before or After.	Weight of Rabbit.	Time between administration of Meconate of Morphia and Sulphate of Atropia.	Dose of Sulphate of Atropia in Grains.	Dose of Meconate of Morphia in Grains.	Result.	Remarks.
365	Meconate of Morphia given *before* Sulphate of Atropia	3 lbs. 10 oz.	5 min.	4	5	Recovered	Recovered from similar doses given 6 and 12 days thereafter
366		3 lbs. 11 oz.	5 ,,	6	6	Died in 2 hrs.	Failure of action of the heart
367		3 lbs. 13 oz.	4 ,,	8	5½	Died in 3 hrs.	Ditto
368		3 lbs. 6 oz.	3 ,,	10	7	Died in 4 hrs.	Ditto
369		3 lbs. 7 oz.	2 ,,	12	4	Died in 2 hrs.	Convulsions
370	Meconate of Morphia given *after* Sulphate of Atropia	3 lbs. 8 oz.	5 min.	14	9	Died in 69 min.	Ditto
371		3 lbs. 9 oz.	5 ,,	15	4	Died in 70 ,,	Ditto
372		3 lbs. 9½ oz.	4 ,,	18	3	Died in 21 ,,	Ditto
373		3 lbs. 10 oz.	3 ,,	19	5	Died in 40 ,,	Ditto
374		3 lbs. 10½ oz.	2 ,,	21	2	Recovered	Recovered 6 days afterwards from same dose

It does not appear from this table that meconate of morphia favours recovery after a large dose of sulphate of atropia. In several cases—Nos. 372 and 373—the time of death seemed to be rather hastened than delayed, and the animals died in severe convulsions, preceded by tremors and pushing backwards of the body. In all of these cases, it was observed that large doses of sulphate of atropia produced great acceleration of the action of the heart, notwithstanding the administration of meconate of morphia. This appeared to indicate either complete or partial paralysis of the vaso-inhibitory branches of the vagus, or stimulation of the sympathetic. It was important, however, to ascertain more precisely whether or not the meconate of morphia relieved in any way, or to any extent, this paralysis of the vaso-inhibitory nerves.

Experiment 375.—An experiment was accordingly made on a large rabbit, weighing 4¾ lbs. It first of all received seven grains of sulphate of atropia under the skin of the back. The pulse soon became accelerated. It was then fixed in Czermak's rabbit-holder, and the pneumogastric nerves on both sides quickly exposed. By proper electrical arrangements, one or both nerves were stimulated, and the cardiac pulsations counted before, during, and after the application of the stimulus. It was found that there was no perceptible retardation of the heart's action on stimulating the vagi, indicating paralysis of the vaso-inhibitory nerves. Eight grains of meconate of morphia were now introduced by injection into the jugular vein, and the animal was left undisturbed for four minutes. The stimulus was again applied to the pneumogastrics, with the same negative effect of producing no diminution in the number of the cardiac pulsations. The stimulus was repeatedly applied with the same effect. It was, therefore, proved by this experiment that, while sulphate of atropia did paralyse the vaso-inhibitory nerve-tubes in the vagus, or the intrinsic motor ganglia in the heart in connection with these nerves, the subsequent exhibition of meconate of morphia did not remove this effect; and that, in this respect, the two active substances were not physiologically antagonistic.

The inferences to be drawn from the experiments on rabbits are the following.

1. Sulphate of atropia is physiologically antagonistic to meconate of morphia within a limited area;
2. Meconate of morphia does not act beneficially after a large dose of sulphate of atropia, for in these cases the tendency to death is greater than if a large dose of either substance had been given alone;
3. Meconate of morphia is not specifically antagonistic to the action of sulphate of atropia on the vaso-inhibitory nerves of the heart; and
4. The beneficial action of sulphate of atropia after the administration of large doses of meconate of morphia is probably due to the action sulphate of atropia exercises on the blood-vessels. It causes contraction of these, and thus reduces the risk of death from cerebral or spinal congestion, as is known to occur after the introduction of fatal doses of meconate of morphia. It may also assist up to a certain point, not precisely fixed in these experiments, by stimulating the action of the heart through the sympathetic, and obviating the tendency to death from deficient respiration observed after large doses of morphia.

[*To be continued.*]

IMPACTED VESICAL CALCULUS: LITHOTOMY: REOPENING OF WOUND: RECOVERY.

By SURGEON-MAJOR J. H. PORTER,
Assistant Professor of Military Surgery at Netley; etc.

IMPACTED vesical calculus being of rare occurrence, the following case may prove of some interest, in the treatment of which considerable difficulty was experienced.

Private J. C., aged 24, in service four years and eight months, of which three years were passed in India, was admitted into the Royal Victoria Hospital, Netley, on the 27th of last April, from Rawal Pindee, with symptoms of vesical calculus. He was in a weak, emaciated, anæmic condition, suffering great pain in the hypogastric region, on the inside of his thighs, and in the perinæum and penis. He was also affected with frequent calls to micturate, accompanied by severe tenesmus, sleeplessness, and depression of spirits. The urine was normal in quantity, cloudy, and deposited a copious sediment, which, on examination, was found to contain pus, mucus, and a few crystals of triple phosphate. Heat and nitric acid threw down albumen in considerable quantity, but there was no pain referred to the kidneys. A large calculus was easily detected by Thompson's and other sounds; also by the finger in the rectum, the hand being pressed over the pubes.

On May 5th, the patient having been placed under the influence of ether with Morgan's apparatus, the bladder was entered by the usual lateral operation, and a large stone felt; but, in endeavouring to remove it with the forceps, it was forcibly retracted or held, an outer layer breaking off and coming away in the blades of the forceps. On repassing the index-finger into the bladder, it was firmly grasped by it, and the stone was found adherent to it at the fundus. Several attempts were now made to detach the stone with the point of the nail, by carefully working the finger round it, by the scoop assisted by the finger in the rectum, and pressure of an assistant's hand above the pubes, and by injections of water into the bladder; but without success.

The patient having been on the operation-table for nearly three-quarters of an hour, and being in a low state, it was decided to postpone further operative measures. One thousand and ten grains of broken-down calculus had been removed. The patient was then placed in bed, and treatment adopted to allay local and constitutional irritation.

No unpleasant symptoms followed; in fact, he felt greatly relieved from his intense suffering. With the hope that the calculus might be detached from the bladder, the cavity was washed out through the wound from day to day; the discharge of mucus, pus, and grit, being copious and irritating.

On May 18th, the patient was placed in position for lithotomy, and rendered insensible by chloroform. The index-finger of the left hand was introduced into the bladder by reopening the wound, and another attempt was made to detach the stone by finger, scoop, forceps, and irrigation; but without effect, the bladder always coming with the calculus when any force was applied. Four hundred and thirty-eight grains, including the nucleus of the stone, were removed on this occasion.

On May 20th, the patient being again placed under the influence of ether, the wound was reopened and dilated with the finger, and the calculus was now found to be detached; but where it had adhered, or had been impacted, there was a deep sac firmly coated with a calcareous deposit, which it was necessary to dig out with the point of the finger-nail. All fragments were now removed, and the bladder was carefully washed out with a strong current of water from an irrigator. Five hundred and seventy grains were removed at this operation, making in all 2,018 grains = 4 ounces, 1 drachm, and 38 grains (apothecaries' weight); besides a quantity unknown lost in the discharge.

From this time forth, he rapidly improved. The urine continued to flow through the wound until June 2nd, when it appeared through the urethra; and after that date but little escaped through the wound. As might be expected, the urine was loaded, for some time after operative measures had ceased, with mucus, pus, and disintegrated blood-corpuscles; but, under the administration of diluents and the tincture of perchloride of iron, these symptoms gradually lessened. The external wound completely closed. There was no stricture, nor difficulty in retaining urine; and he was discharged from hospital in excellent health on August 16th, a slight trace only of urinary deposit remaining, consisting of mucus.

The calculus consists of two portions as regards chemical composition; viz., 1, phosphate of lime, which principally composes the outer laminated portion; and 2, triple phosphate of ammonia and magnesia, composing the interlaminated structure. The nucleus is one inch by three-quarters, of oval shape, rough and irregular on the surface. On section, it is found to be beautifully laminated, a dark hard and white soft material alternating; while the centre encloses a cavity a quarter of an inch in diameter, containing crystals of triple phosphate and spherules of lime.

ON VARIOUS THERAPEUTIC USES OF CALABAR BEAN; ESPECIALLY IN TIC.

By W. MUNRO, M.D., C.M., Cupar-Fife.
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HAVING, in 1871, pointed out the probability of Calabar bean being useful in cholera,[*] from the power which Dr. Fraser has shown it to possess of expanding the peripheral blood-vessels, I have since then thought it might be useful in many other diseases, in which, from one cause or another, these blood-vessels are contracted, but was prevented by various circumstances from applying my ideas in practice until October last. Calabar bean had, up to that time, so far as I am aware, only been used in tetanus, although it has recently been used in general paralysis and acute mania (BRITISH MEDICAL JOURNAL, January 10th and 17th).

Tic Douloureux.—Believing that in *tic* the blood-vessels of the part affected are in a state of contraction, I have made use of the bean in several cases with exceedingly satisfactory results. Very short notes of the cases are appended. I may say here that Cupar is a rather low-lying place, in which tic of an intermittent form, which disappears on the person leaving the town, even for a time, is not uncommon. Fever and ague in those who have had it abroad is apt to return. There is, in fact, a slight malarious influence evidently present in the atmosphere.

CASE I. October 16th, Mrs. D. had tic on the left side of the head. I applied one of Streatfeild's ophthalmic squares to the eye. In about five minutes, she expressed herself as decidedly relieved. This was not a very severe case, which may account for only one square being sufficient.

CASE II. November 6th, Mrs. X. had severe tic, with intense photophobia, brought on by reflex irritation after several days' severe uterine pain, which had now passed away. I used one square, in the right eye. In ten minutes, she was able to open her eyes and converse cheerfully. In half an hour, I used another, relieving the pain entirely, only leaving a "slightly bruised feeling", which was almost entirely removed by another half. The pain did not return, and no more Calabar bean was required. The pupil was never contracted.

CASE III. Miss J. K. had severe intermittent tic, with anæmia. At present, it was almost remittent. She had very severe pain all over the left side of the head, and some on the right side. The pain was intense over the left eyebrow. The pupils were much dilated. She was first seen on December 10th, at 11.15 A.M., between which time and 4.30 P.M., three squares and a half were used (from half to two at a time) in each eye. At 6.45 P.M., she had no pain. At 8.30 P.M., I found she had had a very slight short pain about 7 P.M. Both pupils were still dilated. December 11th, pain returned at 3 A.M., and continued almost constantly until 1.30 P.M., when I used two drops of a solution of extract of Calabar bean[*] (1 in 40) in the right eye (that being the side most affected). In fifteen minutes, the pain was much relieved. At 3 P.M., I found her asleep, but on awaking she felt slight pain on both sides of the head. I used two drops in the left eye and one in the right. In ten minutes, the pain was quite gone. At 9 P.M., she was sitting up, and felt quite well. From this time until December 26th, when I ceased attending, she could at any time stop the pain at once with the drops, which I found it convenient, however, to make of the strength of 1 in 32 afterwards. I treated her at the same time (from the 13th) with quinine and carbonate of iron, with decided benefit. I used the thermometer frequently in the armpit in this case, but observed no decided change of temperature attributable to the use of Calabar bean.

CASE IV. Miss T. had long standing tic, yielding to no treatment. It was only relieved by leaving Cupar for a time, and came back on her return. The pupils were generally much dilated, especially during an attack. I thought of using croton-chloral-hydrate in this case, but preferred the Calabar bean as being only local in action, as I think local remedies are always to be preferred for local diseases, when there is a choice. December 31st. When called, I found her suffering from intense pain over the eyebrows, mostly on the left side. I used two drops of a solution of 1 in 30 (partly lost) in the left eye, and one in the right. In about ten minutes, she said the pain was not quite so severe. I then used one drop more in each eye, with the effect of relieving still more, according to the patient's statement, the localised pain; but, on my return half an hour or so afterwards, I found her suffering from severe pain in the left eye, the pupils being contracted. The patient, being very reticent, had not mentioned to me that tic could be set up in the eye by even a drop of water getting into it, and even now said nothing to let me understand that the pain was that of tic (which unfortunately she was too well able to distinguish from other pains). Seeing the rather strong contraction of the pupils, I used at once one-third of an atropine square to counteract the effect of the Calabar bean, thinking the pain was caused by the contraction. The atropine acted only too well, evidently being assisted in its action by the tic, and the pain *immediately became more severe.* The dimness of vision common after the use of atropine remained in this case for three or four days, and frightened her, she being rather hysterical, so that she refused to submit to further treatment.

Thus, in this case, the only one which has not been perfectly satisfactory in its results, although the patient was not really benefited by the use of the Calabar bean, the pain was, in the first place, according to her own statement, removed from its primary seat; and, even although set up in the eye by the cold drops, it was evidently kept in check by the action of the bean, until the latter was counteracted by that of the atropine. In such a case, outward application of the tincture (which I suggested, but the patient would not use it) or the use of strong Calabar bean, or physostigmatin squares would be advisable.

CASE V. This was a case of obstruction of the nasal duct, complicated by tic, which was relieved in fifteen minutes by a little solution of Calabar bean (1 in 15) applied with a camel's hair brush. It returned in six hours, but was relieved in ten minutes by the bean. It caused the eye to become more injected than formerly. The tic did not return, and the obstruction of the duct ultimately required operative interference. The patient had been suffering from tic for two days continuously when I first saw her.

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[*] *Edinburgh Medical Journal*, October.—I may here say that, from what has since become known of the doses which may be given, I would be inclined to begin in cholera with one-third instead of one-eighth of a grain of the extract, as is mentioned in my paper ought to be injected.

[*] I had to abandon the use of the squares, as I found that three or four were required at one time: but, could I obtain squares containing physostigmatin, I would much prefer them, the drops being a clumsy substitute at best, and not allowing of anything like the precision attainable by the use of squares, as well as being more troublesome to the patient. In experiments on the healthy human eye, I have found it necessary to use five and even six squares to produce contraction of the pupil and temporary congestion of the surrounding parts.

CASE VI. J. B., a man, had severe tic on the left side of the head. He was seen on March 16th, at 3 P.M. He had been suffering since early in the morning. This case being four miles from town, I used three squares and a half (they being in my pocket). In about ten minutes, there was almost total relief. In twenty minutes, two squares more relieved him entirely. The pain came on again during the night; but, having sent him a solution (1 in 30), he used a drop, and it relieved him immediately.

CASE VII. On May 4th, I had intensely severe tic over the right eyebrow, caused by want of sleep and wearing a tight hat all day. Having no stronger in the house, I had to use a solution of one grain to the drachm. Of this, two drops relieved me slightly; and two more in half an hour removed the pain entirely.

CASE VIII. Mrs. W., on May 16th, had severe pain in the right side of the face, and was relieved in about half an hour by two drops (one first, then another) of a solution of 1 in 30.

CASE IX.—July 22nd, 12.30 P.M. Mrs. P. had tic in the left side of the head and face. There had been severe pain since 3 A.M. I used a half-square (one-tenth of a grain of extract in each square).* Relief was obtained in ten minutes. At 7.50 P.M., there was still a bruised feeling, "but no sharp pain". I used a half-square. The pain entirely ceased in ten minutes.—July 10th. The patient came back for more squares. This is the second patient who has done so.

CASE X. Mrs. M. had severe tic in the left side, recurring every evening for a week past.—5.45 P.M. I used a half-square (as above). She was relieved in five minutes. At 6.30 P.M., she was free from pain, "though there was still a bruised feeling". Both these cases were afterwards permanently cured by quinine. In them, as also in myself and others in whom I have used the strong squares experimentally, the pupil always becomes *dilated*. These squares are very hard, and this may account for such an action, as they irritate the eye for about two minutes when used. Squares containing physostigmatin, could they be obtained, would be much better.

CASE XI. J. A. had syphilitic paralysis of the right third nerve, probably from a tumour, with external strabismus, ptosis, dilatation of pupil, and neuralgic pains on the side of the face. I used one square on July 4th. The pain was slightly relieved.—July 5th. I applied one-tenth of a grain of the extract in the eye, causing congestion of the conjunctiva, relieving the pain, and producing contraction of the pupil. In this case, the fact that the pupil became *contracted* is very noteworthy, as the third nerve could not play its ordinary part. Possibly the congested state of the vessels may have acted as a cause of contraction.

In none of these cases did I observe decided contraction of the pupil, except in Cases IV and XI. In Case III, the pupil became smaller than usual, though never contracted to any great degree. In no case was vision interfered with by the Calabar bean—except slight temporary confusion in Case III, lasting about two hours. In the experiment referred to in the first note, vision was temporarily confused (after six squares had been used), but the confusion soon passed away. No general symptoms were ever observed. I am quite hopeful that anyone giving Calabar bean a fair trial will find it an useful and safe immediate remedy for tic, leaving time, in cases requiring such treatment, for the use of quinine and iron, or other medicines calculated to have a permanent effect. For my own use, I intend to obtain, if possible, stronger gelatine squares, that being, in my opinion, the most convenient mode of application, being easily applied and certain in action. The idea is a very ingenious one, and does great credit to the inventor.

Derangement of the Heart.—CASE. December 12th, 1873, A. R., a mill-worker, suffered from continuous pain in the left side, with occasional extra severe spasms. She was of florid complexion. Her lungs were healthy. The liver was normal in size. She sometimes suffered from flatulence, but not at present. She had been in constant pain for three days. The pulse was 88, irregular, intermitting, easily altered in number by exertion, sometimes increased, sometimes decreased in frequency; there were sometimes twenty beats in one quarter minute and twenty-four in another. She had palpitation. There was a rough *bruit* at the base with the first sound. As I had the patient under observation until March 21st, my notes are much too long to be reproduced here. Suffice it to say that I began with one-sixth of a grain of the extract, giving immediate relief. This was continued night and morning for two days, the patient being relieved from pain. She increased the dose to a quarter of a grain, with good effect, but this I then only allowed once a day. For continued use, one-eighth of a grain twice a day (after larger doses at first) seemed sufficient. The *bruit* became much softer, and the pulse fell to 68 under the use of the medicine. On one occasion, being five days without the medicine, she became so ill with the pain in her side (at the apex) that she had to leave off work. She was sometimes very irregular in visiting me, coming only when it suited herself, and *when she required a new supply of medicine*; but I saw enough of her to convince me that the bean had a decidedly good effect. The case being one apparently of constriction of the aortic orifice, the bean would act directly by relieving that condition. Such a case in a hospital under hourly observation would be very valuable; as I saw it, the results obtained only point hopefully to further use of the drug in similar cases.

Febricula.—CASE. December 12th. My own child, a boy four years of age, was attacked by fever without any apparent cause. At 4.40 P.M., his temperature in the axilla was 102; pulse, 128. I gave him one thirty-fifth of a grain of extract; and again, at 5.50 P.M., the same dose. At 6.30 P.M., the pulse was 118; temperature, 99.6; the skin having, from being dry, become quite moist to the touch.

A favourable opportunity has not occurred lately to me to try Calabar bean for the purpose of reducing temperature, but the result obtained in this one case, agreeing well with what could be expected from Dr. Fraser's experiments, viz., expansion of the semicontracted peripheral vessels, points to its use in all cases in which reduction of temperature is desired, and where there is nothing special to prevent it from being used.

Bilious Remittent Fever.—CASE. R. A. This was a case of "bilious remittent" fever, in which I gave cautiously up to half-grain doses, one grain being given in a day, producing slight drowsiness and profuse sweating; and, independently of the ordinary course of the fever, bringing down the temperature from 105, at 7.45 P.M., to 103 at 11 P.M. When the remittent character of the fever showed itself distinctly, I treated the patient with tincture of iodine, in doses of from ten to fifteen minims thrice daily, which I have for some years used in preference even to quinine in such cases.

From this and other cases, I believe that, *if the strength of the extract can be depended on*, the doses given in the *British Pharmacopœia* (one-sixteenth to one-fourth of a grain) are too small for an adult. To produce any decided effect, one-sixth to one-half of a grain, and, *with* great caution, even higher doses should be given, of course beginning with small doses.

I am fully convinced that, in Calabar bean and its antagonist atropine, the *Pharmacopœia* possesses two remedies equally valuable with opium, if not more so. This value is not at present appreciated, but would soon be so were their actions made, more fully than they ever yet have been, the subject of observation in all diseases in which it may be desirable either to expand or to contract the vessels, by some hospital physician, whose position gives him the power of closer observation, and more accurate deductions than one working in private practice can ever hope to obtain.

RIGOR MORTIS IN AN INFANT AT BIRTH.

By J. ASHBURTON THOMPSON, L.R.C.P.Lond.

THE appearance of the case thus entitled by Dr. Grigg in the JOURNAL of October 17th, induces me to publish the following observation. Although very worthy of attention, I have kept it by me six years, in the hope of meeting with some corroborative or explanatory example of the condition noted.

J. H., primipara, aged 20, had been in the second stage of labour at full term, twenty-six hours. The head, which presented in the first position, was said to have occupied the pelvis seven hours; during this time the pains had been very good, although ineffectual, and towards the end of it they began to fail in force and to recur less frequently. The head was not wedged. The fœtal movements had not been felt for seventy-two hours. I was informed that no ergot had been given; I do not know that that was true—I think probably not. I now gave a dose of ergot myself, and, in preference to waiting for it to act, proceeded at once to apply the forceps and extract. The operation was easily performed in about ten minutes. The child was dead. It was at once observed that its limbs, instead of being flexible and even flaccid, as is usual, were stiff enough to retain the position they had occupied within the uterus. The four extremities were thus affected, and considerable force—so much as to involve some danger of fracturing the bones—was necessary to extend them; but when once extension had been made, the muscles lost their hardness and rigidity, and the limbs remained mobile and limp. I cannot speak positively as to any other of the muscles, except those of the neck; they certainly were unaffected, and I believe the muscles of the back and abdomen shared their freedom. The jaw was not examined. Immediately this strange condition was noticed, the body was carefully examined with the stethoscope, and in other ways, to ascertain that life was really extinct. There was no difficulty in making sure of this; and Mr. C. S. Tomes (who happened to be present) also examined the body, and agreed with me that the child was already dead at the time of birth.

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* These strong squares were very kindly sent me by Mr. Squire for trial.

I dwell upon the fact that no life remained in the body of this child at the time the rigidity was discovered; because, although I have adopted Dr. Grigg's title for the sake of reference, I think its correctness, as descriptive of the condition observed, admits of discussion.

Rigor mortis—scilicet, the stiffness of death—the characteristic stiffness of death—ensues upon the death of the individual as surely as the putrefaction by which it is itself followed; for it is no more than the consequence of a certain physical property of one of the constituents of muscle, which is not manifested in the presence of life. No accidental circumstance is known to be competent to obviate this phenomenon; where, therefore, there is dead muscle, there, at some time or other, the *rigor mortis* invariably occurs. This is true of individuals who have attained to an independent existence; for the sake of argument, it may be admitted on the part of the fœtus, although, in the absence of definite information, it is possible that the circumstances of dependent life may prevent its occurrence. The inquiry, then, is at once narrowed to this, Does the *rigor mortis* occur before or during birth in still-born children? In answering this question, it seems to me scarcely reasonable, in pointing to these two cases, to say "sometimes". From the very nature of it, this *characteristic* stiffness of death, if it occur in one case, must occur in all; and nothing but some modifying influence among the circumstances of delivery can be appealed to, to account for the discovery of the phenomenon in these examples, and in these two alone. But what modifying circumstances exist? Is any essential difference apparent between the conditions of these two cases and those of many other examples of still-birth? Therefore, if this rigor were the true *rigor mortis*—that is to say, a constantly occurring phenomenon—is it credible that it should have hitherto escaped notice among the numerous opportunities of observation which even a moderately extensive practice affords? The suspicion, then, may be justly entertained that this stiffness is not a constant phenomenon—not, therefore, *rigor mortis verus*.

Although an interval invariably intervenes between death and the characteristic stiffening of the body, there is, says Carpenter, a tetanic rigidity of the muscles at first sight resembling the true *rigor mortis* which may sometimes be observed to occur instantly after death, from a peculiar condition of the nerves and muscles at the time. The causes of death in these two cases were such as to render it probable that a convulsive state preceded and accompanied the cessation of life. In Dr. Grigg's case, the child appears to have succumbed to hæmorrhage; in my case, to long continued pressure on the head. There need be no difficulty in admitting these two to have been the causes of death to these children, nor the probability that death was preceded by a convulsion; nor, I think, that the muscular rigidity caused by the spasm may have persisted after death. Thus, a probable cause of the rigidity is suggested easily enough; but it is not so easy to see among the circumstances of these cases the particular concatenation which led to its discovery. In fact, as I said before, there is nothing apparent about them different from what every practitioner has had the opportunity of seeing many times. For I imagine these two accidents, of hæmorrhage and of pressure, to be among the common causes of death to the healthy and full grown *fœtus;* nor was delivery effected at a remarkably early period after death, so far as can be ascertained. Nevertheless, it is likely that the precise time of delivery is closely concerned in rendering the observation of this phenomenon possible; and I shall, therefore, draw attention to the time of birth as compared with the time of death, somewhat at length.

In Dr. Grigg's case, the hæmorrhage upon which the death of the fœtus depended did not begin until an hour and a half before delivery; it lasted half an hour. Under these circumstances, probably death did not occur until the end of the hæmorrhage; and it is even possible that it was delayed somewhat longer. This child, then, was born not more than an hour after death. The period of death can with even less certainty be fixed in the case which heads this note. The child had not been felt for seventy-two hours before delivery; but that alone, especially in the case of a primipara, is no sign of death. The head had been engaged in the pelvis seven hours; and during that time it had, no doubt, been subjected to some pressure. This could scarcely have been considerable, since the pelvis was roomy enough; and the delay in expulsion must be laid to the account of inefficient, although apparently strong pains. But I think it is not the quantity of pressure during delivery which is injurious to the fœtus so much as the quality; and comparatively gentle pressure long continued will kill, when violent compression during a short period may be supported. But if it be the long continued pressure which is injurious, the period of death must be placed somewhere towards the end of the seventh hour; and thus in this case too, death may be surmised to have occurred within an hour of delivery. It is possible, but, since there was no sort of difficulty in extraction, not probable, that the pressure was carried to the fatal point only during the application of the forceps.

The conditions under which this *post mortem* rigidity has been observed appear, then, to be death from hæmorrhage or from pressure; and birth at some time within an hour after death. These are far from unusual conditions; and it remains, therefore, to inquire why the phenomenon has not been more frequently observed. If the stiffness were indeed the physical phenomenon known as *rigor mortis*, it would be difficult to answer the question. But, since it is (as I think) a physiological phenomenon, the same difficulty does not present itself; for nothing but actual observation can enable us to declare that it is of rare occurrence. Notwithstanding, however, that these are the only two examples of it as yet recorded, I think further that its rarity is to be pronounced upon with some hesitation. For, most likely the condition is transient, and so the coincidence of two circumstances becomes necessary to its observation; that is to say, first of all, the occurrence of the rigidity (which, though it may be not rare, may yet be uncommon), and secondly, delivery at a particular time after death—*i.e.*, during the persistence of this transient condition.

In consideration of the reasons above given, I look, then, upon the *post mortem* rigidity observed in these two cases as being not *rigor mortis*, but a tetanic spasm, which, occurring *in articulo mortis*, was prolonged after death. Further, I do not think that it is necessarily a very exceptional condition because it has been seldom observed; since I believe a coincidence of circumstances essential to its discovery, of which one, although not rare, is yet not common.

ON HEPHÆSTIC* HEMIPLEGIA, OR HAMMER-PALSY.

By WILLIAM FRANK-SMITH, M.B.Lond.,

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It appears to me that the opinions expressed frequently at the present day as to the effects of continuous exercise of brain-power are in some respects erroneous. About this time of the year, not only the anxious heads of mercantile and other offices, but the subordinates, resort to distant watering-places, "to restore the jaded brain by rest and quiet", as the phrase runs. Many of these are men of a class which, fifty years ago, was geographically limited to areas whose diameters rarely exceed twenty miles; yet it seems to me doubtful whether the amount of work done by each individual is so great now as it was then. I think that rather to the increased diffusion of wealth, with its concomitant the greedy consumption of luxuries by people to whom they are new, are to be attributed the various morbid conditions now ascribed to mental wear and tear. I hold, in effect, that there is far more tear than wear.

These reflections are suggested to me by the fact, that, since I published in the *Lancet* of March 27th, 1869, a short paper on Hammer-Palsy, with seven well-marked cases, I have only seen *one* case.

Taking into consideration the amount of work done by a limited portion of the brain in these cases, which will be apparent when I shall have analysed the process of manufacture, and the fact that in this great town the hammer is the dominant tool, it is remarkable that so few examples have come under my notice, though in public and private practice I have examined many hundreds of artificers.

The last case which has come under my notice is so remarkable, and I have had such opportunities of examining it, that I am induced to quote it in full, and to add the above and a few other remarks to it.

In the first place, however, I will describe the kind of force expended in the processes which furnish us with examples of the disease. There are numerous varieties of manufactures in which the rapid use of a light or heavy hammer plays a chief part—such, for example, as table-blade forging, scissors-making, saw-straightening, razor-blade striking, engineering, file-forging, etc. But for the sake of example, I will adduce the case of the *pen-blade forger*.

The pen-blade forger uses a hammer about 3 lbs. in weight. A pen-blade receives, in the processes of forging and joining to the piece of iron by which it is attached to the haft, on an average one hundred blows. The forger, if an industrious man, anxious perhaps to save, by working over-time, enough money to join a building-society, or to commence business on his own account, will work twelve or even thirteen hours a day. He will make as many as twenty-four dozen blades in a day, and in doing so will deliver 28,800 accurate strokes. The rapidity and accuracy with which these blows rain upon the slender piece of iron is wonderful to the onlooker. Supposing him to work three hundred days in a year, and to continue this for ten years, he will in that period have delivered eighty-eight million four hundred thousand strokes; and just so many discharges of nerve-force will have occurred in the motor ganglia which are engaged in the action, and in the higher ganglia which calculate the distance and judge of the amount of force necessary to be evolved.

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* Ἥφαιστος, Vulcanus.

The case which has been the provocative agent in inducing me to write this memoir was that of a pen-blade striker, Walter S., aged 31, married, and steady. He is a most intelligent man, of a very respectable family—in effect, of the best type of English workmen. The above figures, he says, represent fairly the amount of his work during the last ten years. There is no history of any constitutional or hereditary disease.

He was admitted as an out-patient Nov. 15th, 1873, with wasting of the muscles of the right fore-arm, and a painful cramp-like action of the flexors and pronators when he tried to grasp anything, especially a hammer; hence he had been unable to follow his employment for twelve months. On admission, the circulatory, respiratory, digestive, genito-urinary, cutaneous, and lymphatic systems were in the normal condition. No lead-line existed, nor was there any symptom nor any history of plumbism. On investigating the nervous and muscular systems, I found that he occasionally suffered from vertigo, especially in the street, and that the right leg sometimes dragged a little. Neuralgia and an indescribable centripetal feeling frequently affected the right arm and fore-arm. The tactile sensibility of the fore-arm was almost extinct; electro-sensibility and electro-contractility were almost lost. Thermal sensibility remained. The temperature at the right axilla was one degree Fahrenheit below that of the left. There was a sensation of numbness of the right arm and leg. There were no mental phenomena, no aphasia, no affection of the olfactory, optic, auditory, or gustatory nerves; no paralysis of the tongue. The optic disc of the right side was paler than that of the left.

My notes extend from the date of his admission to the present time (August 1874). Treatment by nervine tonics, mineral baths, the constant and the interrupted current, have been unavailing; indeed, he is worse than he was before admission. When he grasps anything, or even clenches his fist, the flexors and pronators are thrown into painful spasms, exactly similar in appearance to those which occur in a healthy person when he grasps the handles of a powerful electro-magnetic machine. A few days ago, he attempted to write a letter to a brother in Canada, but could only complete three lines, and suffered all afternoon with torturing neuralgia of the arm. The muscles of the right arm and fore-arm and hand are wasted.

Taking this case by itself, one might be induced to class it under the name progressive muscular atrophy; but a perusal of the following abstract of the seven cases which I have already published will compel the reader to acknowledge it to be an example of the hitherto undescribed disease to which I have given the name "hephæstic hemiplegia, or hammer-palsy".

CASE I.—Sept. 1st, 1867. Geo. L., aged 40, table-blade striker, married, father of six children, used a seven-pound hammer. Three years ago, he worked rather late one Saturday, in spite of a feeling of fatigue and dizziness. After tea on the Sunday, he felt ill and went to bed; the right arm was convulsed. He got out of bed and fell down, but did not become insensible. He remained in bed for five weeks. He could understand what his friends said, but could not himself be understood, uttering only inarticulate sounds. The mouth was drawn to the left side. He became able to walk pretty well, and to talk, but indistinctly. He had occasional fits of vertigo, also jactitation of the right arm. There was ptosis of the right eyelid, and impaired hearing of the right ear. He dragged the right leg, and was incapable of grasping the hammer with the right hand. He had some difficulty in passing his urine. Tactile sense was impaired on the right side. The patient was ordered tincture of iron and small doses of strychnia. With occasional attacks of vertigo and cephalalgia, he improved steadily.—November 7th. Improvement was decided. After this date I lost sight of him.

CASE II.—J. P., aged 32, hammersmith, two months ago began to experience pain in the hypogastrium whenever he used his hammer, which weighed 5 lbs. On admission, the right arm was numb, cold, and weak; the right leg dragged, but not much. Tactile sensibility of the right side was less than that of the left. He had indistinctness of speech and vertigo.

CASE III.—August 21st, 1867. J. T., aged 18, working engineer, a very healthy looking, steady young man, used a heavy hammer with the right hand. About five weeks ago, his mother noticed that while cutting some bread his right hand appeared weak and clumsy, "straggling from the haft to the blade". She also noticed some indistinctness of speech. This weakness of the right arm and hand increased up to this date. He could not grasp my hand nor hold a pen. The right leg was weak. He had ptosis of the right eye, and inability to close it firmly. There was twitching of the orbicularis, and of the right arm and hand. The tactile sensibility of the right side was impaired. The sense of tickling and pain was rather increased. The muscular sense was impaired. This patient was discharged in three months, nearly well.

CASE IV.—February 11th, 1867. Christopher L., aged 24, razor-blade striker, using a hammer weighing 8 lbs., had worked at his trade seven years. He awoke in the night, five days ago, with "cramp in the stomach", and found, on attempting to rise, that he had lost the use of his right arm and leg. In this case I could discover no defect in the tactile, muscular, thermal, or æsthetic sense; no amblyopia, deafness, or aphasia. In about three months, under the use of phosphorus-oil, iron, and strychnia, he perfectly recovered, and went up with the militia for four weeks' training.

CASE V.—December 4th, 1866. Thomas C., a table-blade striker, aged 35, had used a heavy hammer for twenty years. The right arm was weak, palpably wasted, and numb. He had neuralgic pain over the biceps.

CASE VI.—October 10th, 1866. Thomas H., aged 29, file forger. On October 1st, worked till 7.30 P.M. On October 2nd, the hand felt stiff, and the wrist dropped. He went to the forge, and said that the hammer felt like a cork. On examination, there was partial loss of power of the right arm, and loss of grasping power of the right hand; no other symptom. October 24th. With rest and tonics, he had nearly recovered his former strength and skill of hand.

CASE VII.—This is peculiarly interesting as a case of aphasia and agraphia. Wm. W., silver-plater, aged 55, six months ago became low spirited, his memory failed, and he suffered from illusions of sight. His mother died insane. I saw him on May 18th, 1868. He used a heavy hammer with one hand. The right arm was weak and numb; he dragged the right leg; the face was slightly drawn to the left side. When asked to read aloud an advertisement of a surgeon-dentist, he pronounced these two words as "juggery go-go"; but intimated by a graphic gesture in imitation of extracting a tooth, that he knew their purport. Though a good writer, he could only write a part of his name, giving up the attempt at the final "d", and could not write his wife's Christian name "Mary". Under treatment, he had considerably improved on August 26th, 1868.

At first sight, as I have already written, these phenomena remind the observers of those cases of muscular atrophy limited to certain groups of muscles which have been observed in masons, smiths, etc. Again, the disease has points of contact with the condition, known as writers' cramp, but found not only among scriveners, but among pianists, violinists, and tailors. On more mature reflection, it will be evident that the disease I am describing differs from muscular atrophy and from writers' cramp, positively by the fact that the cerebral centres are implicated, as indicated by the occurrence of aphasia, agraphia, ptosis, facial palsy, surditas, and the other indisputable stigmata of hemiplegia.

Up to the present time, I have had no opportunity of studying the morbid anatomy of these cases.

A priori, it seems probable, on taking into consideration Dr. Burdon Sanderson's experimental criticisms on Professor Ferrier's views (*vide Proceedings of Royal Society*, last number), that it is in the corpus striatum that we must expect to find the site of the primary lesions. The phenomena of aphasia, etc., appear to indicate the radiation of the effects of this lesion still higher. May it be that some occlusions of a system of cerebral arteries due to pressure by hyperæmia or extravasation, or both, is the solution? However, in the absence of positive evidence, "ultra quærere nefas".

SOME NEUROSES OF THE LARYNX.

By JAMES SAWYER, M.D.Lond., etc.,
Physician to the Queen's Hospital and to the Children's Hospital, Birmingham.

IF we exclude laryngismus stridulus, a disease which I do not propose in any way to consider, by far the commonest nervous affection of the motor system of the larynx is that which Dr. Mackenzie has called "bilateral paralysis of the adductors of the vocal cords", and which has been long known, or at all events probably designated, by a variety of names, to wit, functional aphonia, hysterical aphonia, paralysis glottidis, etc. Of the sufferers from this disorder, a very large majority are hysterical women. I use the phrase "hysterical" in its ordinary and well known acceptation. In this form of aphonia, I believe that there exists in most cases, perhaps in all, some definite pathological change in the larynx, such as congestion or chronic inflammation of the mucous membrane, of very moderate intensity, and that the phenomena arising from this trivial local lesion become, under the influence of the hysterical condition, whatever that may be, exaggerated, distorted, transformed, and multiplied. The muscles at fault are the two crico-arytænoidei laterales and the arytænoideus proprius, those muscles which approximate the vocal cords and the arytenoid cartilages. These muscles fail to sufficiently respond to *ordinary* efforts of the will. The subjects of this disorder are generally young, nervous, weakly women. They cannot speak above a feeble whisper; and this condition often lasts for years. It sometimes comes on quite suddenly; it frequently dates from the hoarseness of an ordinary cold, the impairment of the voice remaining and increasing after the original catarrh appears to have passed away. When we examine with the laryngoscope, and direct the patient to say "Ah", we can see that the vocal cords, lying widely apart, either do not move at all, or move only to a slight extent during the attempt at vocalisation. We usually see no other morbid condition beyond, in some cases, a little pallor of the mucous membrane; in others, slight hyperæmia. The reflex movements of the cords are generally unimpaired; during coughing, the cords may be often observed to move freely. Laughing is sometimes ludicrously noiseless. I must not omit to draw attention to a very curious symptom which is frequently met with in these cases; viz., anæsthesia of the epiglottis. We may pass an index-finger over the patient's tongue and tickle her epiglottis, vigorously and for some moments, without causing spasm, choking, or any uneasiness whatever. I have demonstrated this condition over and over again. This strange symptom was pointed out some time ago in one of the medical journals, but I regret I am unable to refer to the article. I am quite sure that, in many of these cases, a blunted sensibility of the mucous membrane of the throat extends far beyond the epiglottis, and involves more especially the pharynx and palate. Anyone who has had much practice in laryngoscopy knows how well these throats tolerate the laryngeal mirror; a beginner with the laryngoscope can have no better subject to practise upon than a good-natured woman with functional aphonia. Limited anæsthesia in other localities has long been known as an occasional manifestation in hysteria.

The prognosis in these cases of voicelessness is nearly always favourable; we may usually confidently predict a cure.

In treating such a case, we ought to aim at improving the general health as much as possible. Any hyperæmic or inflammatory condition of the laryngeal mucous membrane ought at once to be remedied. I know nothing better for this purpose than the frequent application of a solution of nitrate of silver to the interior of the larynx. This stimulates the parts, and so favours the nutrition of the affected muscles, which may have become seriously deteriorated by prolonged inactivity. These measures alone suffice in many cases; when they do not, in local faradisation we possess a very effective remedy. For its application, I can confidently recommend Mackenzie's apparatus. One pole should be applied to the neck, over the thyroid cartilage, and the other, with the aid of the laryngeal mirror, to the vocal cords. Complete restoration of the voice and complete control over the adductors of the cords is often the instant and lasting result. Mr. Durham relates a case in which the introduction of the throat-mirror alone was attended by immediate recovery from aphonia. In many instances, the voice is only gradually regained under the frequent and long-continued use of faradisation. How the remedy acts in these cases I cannot say; I can only repeat what I wrote on this subject some time ago; viz., that, in faradisation in this kind of aphonia, we probably frequently have nothing more than a convenient agent for "filliping" the dormant muscles and defective will into normal relationship. I cannot too strongly urge the importance of a due attention to what may be called the psychical elements of treatment. The medical attendant ought to cheer his patient with the confident prediction of a speedy recovery; he ought to secure her cordial co-operation in the measures he advises, and encourage her to make every effort to regain control over the affected parts. I have spoken of these patients as women; but one of the most marked cases of this affection I have ever seen was that of a stalwart, healthy-looking man.

We sometimes meet with other local paralyses in the larynx, in which one or more of the muscles on one side, or one or more pairs of muscles, are implicated. These disorders are purely local; they may occur, so far as I have observed them, in either sex, at any age, and they appear to be wholly independent of any general constitutional condition. They usually, probably always, arise in connection with catarrhal and inflammatory changes in the mucous membrane. It has been suggested that the paralysis is due to exudation into the substance of the muscles. Of this class of affections, I have seen numerous instances. There is sometimes a little laryngeal dyspnœa, and the sounds of coughing, sneezing, and laughing are generally more or less altered from their healthy characters. Three years ago, a woman came to me, complaining of loss of voice. Her voice was feeble and whispering. I found that, during attempted phonation, the left vocal cord remained at the side of the larynx, while its fellow could be promptly brought towards the middle line. Here the left arytænoideus lateralis failed in its function. Under the local employment of stimulating solutions and faradisation, the woman speedily recovered. A little time ago, a surgeon sent me a case of incomplete aphonia, in which I found that, during an effort at vocalisation, the arytenoid cartilages were brought completely together; but, instead of the free edges of the cords becoming evenly approximated, an elliptical opening remained between them. In this case, the thyro-arytænoidei were evidently solely at fault. The patient soon recovered, but she has since had more than one relapse. I recently saw a patient, in whom, when an effort was made at phonation, the cords came quickly towards the median line, their edges remaining straight, and then stopped short; their perfect approximation posteriorly seemed impossible. The arytænoideus proprius was undoubtedly inactive.

The pressure of a tumour upon one or both recurrent laryngeal nerves may variously alter, or almost extinguish, the voice, besides changing the respiratory sounds and producing grave dyspnœa. I frequently saw, some years ago, a man whose left recurrent nerve was pressed upon, within the thorax, by an aneurism of the aorta. From time to time, his laryngeal symptoms varied exceedingly: his cough was clanging; his breathing a little stridulous; his voice was generally weak and whispering, but it was subject to frequent variations both in tone and pitch. The left vocal cord was completely paralysed; it remained, away from the middle line, midway between the positions of extreme abduction and adduction; when he attempted to speak, the right cord could be plainly seen to pass a little beyond the middle line towards its motionless fellow. A little time ago, I had a patient, sent to me by Dr. Drummond, who presented the phenomena of pressure upon both recurrent nerves within the thorax. He had a large tumour, a lymphadenoma, springing from the anterior mediastinum and involving all the nerves and vessels at the upper opening of the thorax in its pressure upon the surrounding parts. There was great dyspnœa, the laryngeal element of which was chiefly inspiratory, the breathing-sounds were stridulous, the voice feebly whispering, and the cough croupy and clanging. The lad was so ill from the time I first saw him up to his death, which was not long delayed, that I never observed the condition of his vocal cords.

Some or all the intrinsic muscles of one or both sides of the larynx may be more or less completely paralysed, as the result of intracranial changes affecting the integrity of the pneumogastric nerves. Such conditions of the highest importance have been seen and described. I content myself with mentioning them, as no such case has fallen under my own observation.

CASE OF ADDISON'S DISEASE, WITH *POST MORTEM* EXAMINATION.

By JOHN SPENCER FERRIS, M.B.Lond., Uxbridge.

ELIZABETH J., aged 47, spinster, housekeeper, living at Brentford, was brought to me by her sister on July 8th, complaining of sickness, and great debility. I at once noticed the colour of her face, which was very brown or bronzed, and I inquired if she had ever been in India; but she said she had hardly been out of Middlesex all her life; and her sister said that at Easter she was well, but, when she saw her at Whitsuntide, she noticed the brown colour. It had been deepening ever since, and she had been becoming weaker. The skin of the face was all browned; but there were extra patches of brown on each side of the chin and on each side of the forehead. The skin of the whole body was also bronzed; the back of the neck and round the umbilicus very deeply so. The hands were very brown. She had a very weak pulse, and her lips were quite pale and bloodless. She had running abscesses round the left hip, having had disease of this joint since childhood. There was no family history of tubercle; her father died of gout, and her mother of bronchitis at 63; her brothers and sisters were all living and well. Her sister said she had a fair complexion and light brown hair. This sister was very fair. Twenty-four years ago, she had a bad cough, which lasted some time. She could take very little food, as almost everything made her feel sick.

I ordered her a nourishing diet, and gave her stomachic sedatives, such as bismuth, quarter- and half-grain opium-pills, etc.; and then, when her stomach would bear it (but this was seldom, and not for long), sulphate and ammonio-citrate of iron and cod-liver oil. Though she was stronger for a time, she soon afterwards became weaker and weaker, and unable to take any food, and died of exhaustion on September 13th. She had no cough, or pain, or any other symptom but the brown skin and the great debility. The urine never had any albumen.

On September 15th, assisted by Dr. Casey of Windsor, I made a *post mortem* examination. First of all, we noticed ankylosis of the left hip, numerous cicatrices of abscesses, and one or two fistulæ of abscesses. The body was much emaciated. In the apices of both lungs there were the remains of old tubercle, and adhesions of the pleura to the ribs. The heart was small and flabby; the liver and spleen were normal. Both kidneys had undergone to a small extent amyloid degeneration; but in the left one, and at the upper part, there was an abscess half an inch in diameter; it contained pus cells and granular *débris*. Near this was a cyst with thickened walls, as if it were the remains of an old abscess. The suprarenal capsules were much enlarged and indurated, weighing respectively 4½ drachms and 4 drachms. On section, almost no trace of normal structure could be seen; but in its place a gristly fibrous tissue, studded with masses of firm cheesy substance, in some of which were calcareous spicules. Under the microscope, these masses presented the appearances of cheesy tubercle, oil-globules, and granules in great abundance, with granular corpuscles of irregular form and size.

DENTITION AND LANCING THE GUMS.

By JOHN WARD, M.D., Grange-over-Sands.

As an advocate of the judicious use of the gum-lancet in alleviating the woes of infancy, I regret that the benefits to be derived therefrom are not more fully appreciated by the profession at large.

Not forgetting the influence of constitutional peculiarity; the susceptibility of the high nervous organisation of many infants of the present day; the effects of diet; the influence of climate and its effects, as modified by clothing and indoor temperature; together with the benefit to be derived from well timed outdoor exercise, I have long noticed a remarkable effect on the progress of dentition—other things being equal—as influenced by geological formation. Not only have I found a most marked difference in the case of my own children during this period of development, according as their residence was on the millstone grit formation, or on the carboniferous limestone, in favour of the latter; but I have been struck with the comparative ease with which dentition is passed through by children generally located on the latter formation.

To what extent the soothing influence of the sea-air may exert a beneficial influence on the sympathetic irritations of this period, I am scarcely prepared to say. That water of a moderate amount of hardness is beneficial as an article of diet in such cases, as indeed during the period of the physical development of the organisation, I think will be borne out by the test of experience. As an instance in point: a somewhat delicate child, eleven months old, living on the outskirts of a town which is supplied with water remarkably soft from the gritstone, was confided to my care for a while during the recent summer; and, in the short period of four weeks, it cut the four central incisor teeth; the wind being north-east and the lancet repeatedly used. The lateral incisors and first temporary molars made rapid progress. Referring to the wind being in the north-east, I have observed that, during the prevalence or even the sudden accession of a north-east wind current, the teeth appear to make rapid advance, which advance, should the wind change, may as suddenly subside. This may more or less account for the perplexity which has overtaken others, as stated by Dr. Finlayson, who says, in his recent paper on the above subject in the JOURNAL, "that symptoms almost precisely the same as those usually attributed to teething were frequently observed before the time for the appearance of the teeth had arrived, and that these symptoms, at whatever age, frequently appeared and subsided without any fresh tooth coming to the surface".

It is during this teething impulse that the use of the lancet comes most timely to our aid, should any one of the frequent concomitant symptoms, such as diarrhœa, sickness, or tendency to convulsions, threaten; or should even the milder symptoms of irritability of temper, languor, etc., appear; and, on inspection, the probabilities in any degree warrant the conclusion, that the teeth may be at the foundation of the cause.

No absolute or precise rule can be laid down as to the exact age at which the irritations attributed to teething arise, some children being actually born with teeth. Some authors speak of two periods of irritation from teething; one, when the tooth is deep down in the gum, surrounded with its fibrous envelope; and the other, just as it makes its appearance. Without exactly endorsing this view, I am inclined to think that the sympathetic irritations are most felt some time before the teeth are at the surface; and that it is from inattention to this, and when the lancet has been applied merely to those just about to emerge, that disappointment has been experienced and the operation brought into disfavour. If experience have not been gained by practice, it may require some effort to judge accurately which tooth or teeth need the liberating assistance of the lancet, as it is known that they do not always make their appearance in the same order; but there will generally be evidenced a fulness of the gum, and sometimes rotundity and redness of the free surface, with which practice will make familiar. Making exception of isolated cases, which rarely may occur, where the health of the child is impaired, the vascular system unduly relaxed, as in cases manifesting a tendency to scurvy, purpura, etc., my own experience would lead me to fear little from hæmorrhage.

I cannot agree with Dr. West, "that circumstances in which the use of the gum-lancet is really indicated are comparatively few", as it has often fallen to my lot to see unpleasant symptoms, varied in their manifestation, speedily subside upon the gums first being relieved, and then attention being directed to the special concomitant symptom; as, for instance, in cases of diarrhœa, moist warmth to the abdomen, followed by the application of the flannel binder; and, when the infant is weaned, the substitution of the milk-whey diet for a time, taking care, on return to the ordinary food, that, should the raw milk prove purgative—as is often the case when the cows are fed on roots in the winter months—to recommend its being boiled previously to using. It is my firm opinion that, by the free and judicious use of this instrument, infant mortality might be very considerably reduced, and many untoward symptoms nipped in the bud.

In the choice of an instrument, my experience has led me to use Syme's abscess-lancet, enfolding all but about half an inch of the end of the blade with a piece of tape or linen, which may be at hand, in preference to the ordinary gum-lancet; or one which Messrs. Wood of Manchester have made me to order, in shape like Syme's, but with a cutting surface of barely half an inch on the convex or upper surface near the point, and rather more on the under surface. This—taking care that it is scrupulously clean—when guided in the mouth, under shelter of the second finger, is very convenient, and enables the operator to make his incision just over the tooth, cutting down with nicety on the entire length of its surface, longitudinally, under ordinary circumstances, or crucially, especially in the case of the molar teeth, if the symptoms be urgent or the gum unusually tough.

The position of the child most convenient I have found to be, for lancing those of the lower jaw, an upright sitting one on the nurse's lap, the infant's head leaning against her breast, and she holding its hands; for the application of the lancet to the upper jaw, laying the infant on its back across the nurse's knee, the operator standing at its head, taking care he has a good light. A drink of cold water is very refreshing to the little patient immediately after the operation.

I always endeavour to arm myself with the weapon, the judicious use of which I have been advocating, as it is one which I have found necessary to call into requisition much more frequently than any other in the *armamenta* of the surgeon.

OBSTETRIC MEMORANDA.

A FATAL CASE OF SEPTICÆMIA AT THE FULL TERM OF GESTATION.

MRS. D., aged 27, expecting daily her sixth confinement, was seized on Sunday evening, September 27th, with rigors, and vomited once or twice. In the night, she felt pain in the right elbow, wrist, and hip-joint, which next morning were found to be swollen. There was no ascertainable cause for the attack. The patient had been in good health throughout her pregnancy, but had led a very sedentary life, and was extremely stout. The symptoms continuing, I was sent for on the morning of September 29th. I found the patient in bed, and unable to move without great suffering. The right wrist and elbow were painful, and the wrist somewhat swollen, but the elbow less so than it had previously been. The hip was also said to be better; but pain and tenderness were now felt at a spot about the middle of the right thigh on the anterior aspect, and at another in the lower third of the back of the leg. There seemed to be a little fulness at these situations, but no definite swelling. Tongue moist, with a little yellowish fur down the middle; pulse rapid, full, and bounding; skin warm, moist, and perspiring. There had been no rigors or sickness since the first attack. There was no vaginal discharge, or indications of approaching labour.

The next morning (September 30th), I was hurriedly summoned at 9 o'clock, and, on arrival, found a fine female child in the world, the pains having commenced an hour and a half before. (Previous labours had always been tardy.) The membranes had ruptured very early, and given vent to a large quantity of liquor amnii, in which, I was told, was some greenish fœtid matter. Upon examination, I found the uterus firmly contracted, and removed a large and apparently healthy placenta from the vagina. No hæmorrhage had taken place in excess of what is usual. The febrile condition was a little more intense than on the previous morning, and the right wrist was more swollen. The other symptoms continued as before. I called subsequently about 5 o'clock in the afternoon. No appreciable change had taken place since the morning. The tongue was furred, but moist; the skin moist and warm; the mind clear and cheerful. There was not the slightest indication of any failure of the vital powers. I was again summoned at 10 P.M., and found the patient rapidly sinking. The change had commenced about 7 P.M., when the friends noticed that she began to breathe rapidly and laboriously, and that they could only with difficulty get her to speak. Dr. Sheldon kindly favoured me with his presence and assistance; but the woman became comatose soon after my arrival, and died at 12 P.M.

On Thursday, twelve hours after death, I made a *post mortem* examination, which I was unfortunately compelled to hurry. The uterus I found contracted, perfectly healthy, with a few small clots adherent to the placental site; but no trace visible, on a rough inspection, of phlebitis or gangrene. The abdominal viscera were healthy, and the peritoneum entirely free from inflammation. The substance of the heart was rather flabby; each ventricle contained about two ounces of black fluid blood; but there was not the slightest trace of any clot in them, in the auricles, or in the great vessels. The left lung was gorged with blood (the patient had lain on this side previously to and after her decease); the right lung was in a similar condition, to a less degree. The swelling of the wrist and elbow had disappeared. Over the tender spot in the right thigh, the skin was yellow, as though from a bruise; and under it was a hard lump about the size of a walnut. Into this I made a deep incision; some serum escaped, but no pus. Rigor mortis was well marked.

In the above case, I am disposed to consider that subacute rheumatism, occurring just before parturition in an extremely stout patient, induced septicæmia. I have entertained some doubts whether the latter was not the sole condition; but against this view, the absence of any known cause, and the apparent amendment in some of the joints, seem to militate. Had the patient survived a day or two longer, abscesses would no doubt have formed at the tender spots in the thigh and leg; but death was evidently too rapid for the suppurative process to have taken place. I may mention that the child was at first very cyanosed, and made convulsive respiratory movements like a hiccup. After a warm bath and the evacuation of a little blood from the umbilical cord, it improved; but the hiccup continued all the rest of the day. The child is now healthy and vigorous. I have not heard of or met with any similar case; and the rapidity of the fatal termination, together with the absence until the last few hours of any symptoms which would occasion much anxiety, has induced me to report it.

HERBERT L. SNOW, M.D.Lond., Bayswater.

THE INDUCTION OF PREMATURE LABOUR.

THE question as to the best method of inducing premature labour is not one which can be settled, as Mr. Clogg seems to think, by a reference to two or three cases. Mr. Clogg gives the preference to puncturing the membranes, because he himself, on two occasions, brought on labour in this way *in the same individual*, the labour terminating within twelve hours, and the result, as regards the mother, being favourable. In contrast to this, he refers to a case (No. 11) in my series, in which delivery did not take place until sixteen days after the introduction of the first tent. To make a fair comparison between the two, he ought to have quoted the short description which I gave of the case in my paper, and which is as follows.

CASE XI.—In March 1869, I induced premature labour in a patient—Mrs. N.—who had been twice delivered by craniotomy, on account of pelvic deformity. The os was dilated by tangle and sponge-tents. After the third tent, the membranes ruptured and some pains came on. These, however, although ergot was given, passed off after some hours. I then left her for a few days, and again introduced some tents, but with no better result. I then desisted for the present from further efforts, until, about sixteen days after the introduction of the first tent, labour came on rapidly and the breech of a child presented. This was speedily expelled, and proved to be a fœtus of about eight months. Both it and the mother did well.

Now this case, it will be observed, tells rather against Mr. Clogg's argument than for it. The membranes were ruptured (what can it matter whether this was effected by a tent or by a catheter?) about the third day, and yet delivery did not take place until a fortnight afterwards. It is not fair to call this, as Mr. Clogg does, a "sixteen days' labour". Had it been so, the woman, in all probability, would not now have been alive to tell the tale. The fact is, there was no uterine action, and therefore no pain, until a few hours before delivery. This case (the most tedious on my list) was simply one in which, from idiosyncrasy, it was almost impossible to provoke uterine action. Mr. Clogg's, on the contrary, was one in which it was very easy to do so. Rupture of the membranes, whether natural or artificial, is not an infallible provocative of speedy labour. About a year since, I published in this JOURNAL a case in which the membranes ruptured spontaneously, the waters gushed away, and meconium escaped *per vaginam* for several days; the child ultimately dying and not being expelled until exactly a month after the rupture of the membranes.

As I have said before, I do not object to puncturing the membranes because it is a more speedy or more tardy mode of inducing premature labour than the use of tents, but because I am convinced it is less safe for the child. That these objections are not peculiar to myself is shown by the following passage from Dr. Barnes' excellent work on *Obstetric Operations*.—"It is an inversion of the natural order of parturient events. Some uterine action, lubrication and expansion of the cervix, ought to precede the evacuation of the liquor amnii. If this order be not observed, the child is apt to be driven down on the unyielding cervix, and the uterus, still contracting concentrically, compresses the child and kills it. And this is all the more likely to happen in premature labour, from the greater liability to shoulder presentation and descent of the funis."

J. G. SWAYNE, Clifton.

CLINICAL MEMORANDA.

POISONING BY MUSHROOMS.

IN the two cases recently published under the above heading, I venture to suggest that the symptoms were not those of poisoning (as shown by the speedy relief following an emetic), but of gastric irritation, caused by the presence in the stomach of an indigestible article of food. I have known a supper of pork, for example, to be followed by temporary coma; though I have not yet met with any other nervous symptoms in such an instance. I doubt whether the true mushroom is ever poisonous, although newspaper reporters invariably call poisonous fungi "poisonous mushrooms", and thereby prejudice many timid people against a harmless article of diet.

HERBERT L. SNOW, M.D.Lond., Bayswater.

SPINA BIFIDA CURED BY INJECTION.

WITH regard to Dr. Morton's successfully treated case, reported in the JOURNAL of October 24th, I venture to suggest that a few more particulars would be very interesting, more especially as so little is known of the usual contents of the sac when this malformation occurs in the upper portion of the spinal column. Will Dr. Morton kindly inform us whether the cord in his last case communicated with the sac? This, no doubt, is a very important point, and one which seems to have been difficult to diagnose in some reported cases. In the lumbo-sacral region, the cord is nearly always attached to the sac. Mr. Prescott Hewett examined twenty preparations, in only one of which this was not the case. Mr. Hôlmes (*Surgical Diseases of Children*) has alluded to the importance of an examination of the contained fluid in any doubtful case. "When the cord is involved, the subarachnoidean fluid will be present. . . . In any doubtful case, the presence of sugar, or of a seemingly like substance, is a strong proof of the spinal origin of the tumour; but, upon the other hand, its absence or the presence of much albumen does not show that it does not belong to the spinal fluid cavity. In the latter case, however, it may be allowable to conjecture that its communication is with the *arachnoid cavity*, and that there is less probability of finding the cord in the sac." In drawing conclusions as to the advantages of any mode of treatment, it must be desirable to know the exact nature of the cases treated, and I expect that some of the cures of which we possess the reports were cases in which the spinal cord was not attached to the sac. M. Debout (referred to in Mr. Holmes's *System of Surgery*) states that Brainard cured five out of six cases; whereas Brainard himself only alludes to three cures out of seven; but neither seems to have made any record with regard to the contents of the sac. At Lisbon (reported in this JOURNAL March 23rd, 1872), Dr. Cabral cured a case, in which he describes the fluid which was removed as being *highly albuminous*; and he farther stated that there was neither paralysis nor any other symptom denoting lesion of the spinal cord. I think that all who are interested in these cases would like to know Dr. Morton's opinion upon this point. Cases in which the cord is not attached to the sac are so rare (Mr. Prescott Hewett, etc.), that it is very unlikely that four instances should occur in succession. But, on the other hand, it seems to me that, if the spinal cord were extensively attached to the posterior portion of the sac, any operation which should cause the sac to contract and shrivel up would necessarily produce serious mischief to the contained nervous matter.

E. Noble Smith, Paddockhurst.

THERAPEUTIC MEMORANDA.

USE OF ERGOT IN PURPURA HÆMORRHAGICA.

The Journal of September 5th contains a communication from Dr. W. L. Lane of Dunfermline, referring to the successful treatment of a case of purpura hæmorrhagica by the hypodermic injection of ergotine. This drug, he states, he was induced to use because it contracts the involuntary muscular fibre, and hence influences the small arteries, and is indicated in purpura hæmorrhagica, because this disease is a disease of the capillaries, and not of the blood, as generally stated. This communication is interesting and important, as it serves to prove three things. 1. The action of ergot is upon the involuntary muscular fibre, as stated by Mr. Mavor and myself in our work on the *Specific Action of Drugs* (p. 17). 2. The physiological action of a drug is an index to its therapeutic value (see Preface). 3. The physiological action of a drug is the same in man as in animals, both in health and disease; for Messrs. Mavor of Park Street have for some considerable time past been in the habit of treating purpura hæmorrhagica in the horse with ergot, being solely induced to do so by their knowledge of the physiological action of this drug, and the belief that they had to deal with a disease of the capillaries—a knowledge obtained by repeated experiment.

A. G. Burness, M.B., C.M., Green Street, Grosvenor Square.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

CASE OF EXTRAUTERINE (TUBARIAN) GESTATION; DEATH AND DECOMPOSITION OF THE FŒTUS; DEATH OF THE MOTHER, AT THE SIXTH MONTH, FROM PERITONITIS.

(Under the care of Dr. Hall Davis.)

We are indebted to Mr. E. Knox Davis, Resident Obstetric Assistant, for the notes of this case.

E. B., aged 34, was admitted into Dr. Hall Davis' ward on July 31st. She stated that, until her present illness, she had always enjoyed good health; her catamenia had been regular ever since she was 17 years of age; she had been married about seven years, but had never been pregnant.

Present Illness.—About Christmas last, she ran up against a door, the key of which struck her in the left iliac region; on receiving the blow she fainted, but felt afterwards only slight inconvenience, which soon disappeared. Six weeks after this accident—*i.e.*, about the middle of February—her appetite failed her, and she began to be troubled with nausea and vomiting in the morning. She also began to suffer from attacks of severe pain of a sharp darting character, extending from the vagina and rectum upwards over the whole of the abdomen. At the same time, she experienced great difficulty in passing urine, and her bowels were much confined, never acting without medicine. After some six or eight weeks, the morning sickness and the difficulty in micturition passed off, but the attacks of pain gradually increased in frequency; at first, they occurred about once a day, but subsequently came on every two or three hours. The paroxysms came on at irregular intervals; they were often so severe that she fainted, and were generally accompanied by vomiting. She menstruated regularly till the end of April, when the catamenia ceased entirely. From the commencement of her illness, she had been unable to lie on her left side, on account of the severe pain which the attempt occasioned; but she was comparatively easy when lying on her back. About two months before her admission, the severity of the pain first drew her attention to a tumour in the left iliac region, which had since gradually increased in size.

When admitted, the patient was evidently very ill. Her pulse was 120, her temperature 101 deg. She complained of shooting pains in the abdomen, radiating from the left iliac region. Here, emerging from the pelvis, was a rounded solid mass, about the size of a child's head at full term; it was dull on percussion, but the actual area of dulness varied considerably at different times. The tumour was tender on percussion, and the patient described a sensation in it "like the ticking of a clock"; but, on auscultation, only a souffle synchronous with the maternal heart could be heard. On vaginal examination, the os uteri was found to be situated high up, close behind the pubes, and closed, so that there was some difficulty in introducing the uterine sound; it entered upwards and to the right to the extent of three inches and three-quarters. Projecting into the upper and posterior part of the vagina was a rounded and elastic, or fluctuating, swelling.

Soon after admission, the patient began to suffer from diarrhœa, which continued more or less up to the time of her death, in spite of the opium and morphia which were administered both by the mouth and the rectum to relieve her sufferings. She had throughout an elevated temperature, and suffered much from the abdominal pain and sickness. On August 6th, the swelling in the posterior wall of the vagina was punctured with the aspirator, and about three ounces of dark brown, grumous, and extremely fœtid fluid were drawn off. On the 8th, while the patient was retching violently during a severe attack of pain, a quantity of the same dark-coloured offensive fluid suddenly gushed away from the vagina, giving her immediate relief. It continued to drain away slowly for some hours to the amount, as far as it could be estimated, of more than a quart. On introducing a speculum, a small fissure was seen in the posterior wall of the vagina, through which the fluid was oozing, and a probe was readily introduced upwards and to the left to the extent of five inches; the end of the probe could then be indistinctly felt about an inch and a half inside the anterior superior spine of the ilium. The nozzle of the uterine syringe was then substituted for the probe, and about fifteen ounces of the same fœtid fluid drawn off; a large quantity of horribly offensive gas also escaped. The cavity was then washed out with a weak solution of carbolic acid, and the aperture kept patent by means of a piece of elastic tubing.

After this, the carbolic acid injections were continued daily, and the patient continued in much the same state for some days; but, on the evening of the 16th, she had a severe rigor, and another next morning, after which she sank rapidly, and died in the night.

At the necropsy, the contents of the abdomen were found glued together by numerous adhesions, some old and some recent; the peritoneum was deeply pigmented. The orifice in the upper part of the vagina, through which the probe had been passed, was found to lead into a large sac, which occupied nearly three-fourths of the whole pelvic cavity. It extended across the middle of the sacrum, which, with the iliac bone, bounded it posteriorly and on the left; on the right was the rectum, and in front were the uterus and vagina and the intestines. Its thick wall was formed apparently of thickened peritoneum and of inflammatory tissue. Its cavity contained a few ounces of grumous chocolate-coloured fluid of most offensive odour, together with the skeleton of a fœtus of about the fourth month; this was much decomposed, some of the bones lying loose in the cavity. The fundus of the uterus was displaced to the right; the left Fallopian tube was imbedded in the wall of the sac; its channel was pervious, but its distal extremity was adherent to the ovary. The ovary itself was normal, but was surrounded by a recent blood-clot, about the size of the human spleen, which was closely connected with the left upper boundary of the fœtal cyst; this effusion, added to the amount of decomposed blood which had been discharged during life, no doubt caused the patient's rapid collapse. The wall of the uterus was pale and its cavity natural.

Clinical Remarks.—Dr. Hall Davis observed that this patient, who had come up from the country for advice, was brought to him by Mr. Horsley Mapleson, with a view to her admission into the hospital. After obtaining the history of the case, and from his local examination, as described in the preceding report, Dr. Davis came to the conclusion that it was one of extrauterine gestation—left ovarian or tubarian or tubo-ovarian. Nor did he think, as did one physician who had seen the patient, that the long delay, six or seven years, which had elapsed since the date of marriage, was opposed to this diagnosis. Of cases of delayed pregnancy which had come before him, ultimately followed by childbirth, from one marriage, he mentioned four instances where the subjects had been delivered of their first child eight, nine, thirteen, and nineteen years respectively after marriage (the last two were Mr. E. Jay's), and in none of these had there been any obvious cause for the delay.

As to the period of conception; it possibly took place early in February, in the middle of which month the patient began to be troubled with nausea and vomiting, and with pains darting through the vagina, rectum, and abdomen. Yet it is not improbable that conception had already occurred before the accidental blow over the left iliac region; if this were the case, menstruation took place regularly for four months after impregnation; but such exceptional occurrence is occasionally met with. The child died when of about three months' growth; hence the absence of mammary development which was noticeable in the case. As to the enlargement of the uterus, Dr. Davis had met with a similar condition in every instance of extrauterine fœtation which had come under his notice; the displacement of this organ by the gravid cyst was exactly such as happened in a case of tubo-ovarian gestation in which he was consulted by Mr. George Everitt Norton, and which he brought before the Obstetrical Society in 1870 (*Obstetrical Society's Transactions*, vol. xii, p. 331).

As regards the operative treatment of the case, Dr. Davis could not but regret that the vaginal tumour had not been freely incised and the fœtus and other contents evacuated; nevertheless, in view of the general and local condition of the patient, he scarcely thought that her life could have been saved thereby.

GENERAL INFIRMARY, LEEDS.

HYDATID OF THE LIVER TREATED SUCCESSFULLY BY ASPIRATION.

By J. D. HEATON, M.D., F.R.C.P., Senior Physician to the Infirmary.

CHARLOTTE COLLIS, aged 20, single, is a native of Cambridgeshire, where she lived with her parents till fifteen years old; she then went into domestic service in London. Six months ago, she gave birth to a child, which is living, and has been suckled by her up to the present time. She came to Leeds with her parents about three months since. She is of small stature, slender, of a very dark sallow complexion, shrunk and wasted appearance. Her parents are in good health; two uncles are said to have died of cancerous disease.

The patient had good health till three years ago, when she noticed a small hard prominence on the surface in the right hypochondrium, where she felt sharp darting pains. She had occasional vomiting; the matter vomited being sometimes streaked with blood. She had medical advice, and was treated with iodine applied locally; she was told she had strained herself and would soon be all right. The tumour remained stationary till about three months since. She continued her work as a servant, but her health partly failed; she became weak and thin, and did no work after her confinement. About three months ago, the tumour began to enlarge markedly, and her health became worse. She again had medical treatment, but without benefit.

She now complained of constant headache, and felt weak and generally ill. She had shooting and dragging pains in the right hypochondrium, so severe as to keep her awake at night. A well defined rounded prominence was apparent on the surface of the right hypochondrium, becoming more prominent when she lay on the left side, and then forming a projection of the size of an orange. It was distinctly situated in the liver, rising and descending with the movements of the diaphragm. It was uniformly convex, hard and resisting, without any fluctuation, though somewhat elastic when firmly pressed. Pressure gave pain. No other tumour or irregularity of surface could be felt on the liver.

The liver being distinctly recognised as the seat of the tumour, the diagnosis of its special nature seemed to lie between cancer and hydatid. From the family history, she might be supposed to be predisposed to cancer; but a single tumour of so large a size is not the condition in which cancerous disease usually shows itself in the liver. Cancer would not be likely to remain quiescent for two and a half years; it would probably occasion more pain, and there would be more complete failure of health. The youth of the patient was also unfavourable to the probability of her being the subject of cancer. Excluding the supposition of cancer, we had to adopt the alternative diagnosis of a hydatid tumour. Its marked hardness and want of fluctuation might seem opposed to this view; but we recognised a degree of elasticity which was encouraging, and we determined to seek for confirmatory diagnosis as well as curative treatment by the use of the aspirator.

The cannula was inserted at the apex of the tumour, and, after passing through some thickness of resisting structure, it seemed to enter a cavity, or some more yielding medium. The aspirator at once drew a copious stream of transparent, almost colourless, fluid. About ten ounces of fluid were withdrawn, which became sanguinolent towards the close, when no further exhaustion was attempted. A pledget of cotton-wool soaked with carbolised oil was strapped over the puncture, and a flannel bandage applied round the body.

No bad consequences followed. The prominence on the surface disappeared, but some remains of the tumour might be felt by manipulation, when the bandage was removed after some days. The pain and uneasiness were much relieved. The headache also left her. She remained in the house about a fortnight after the operation, during which time her appetite and digestion were good. She gained in strength and weight, and acquired a more cheerful countenance.

The fluid which was withdrawn had a slight opalescence and a pale greyish tint. It had a low density; it contained no albumen, but a copious precipitate of chloride of silver was thrown down on testing with nitrate of silver, from the presence of common salt. When allowed to stand for a considerable time, a slight flocculent sediment was thrown down, which was carefully examined microscopically for hooklets of the head or scolex of an echinococcus, but without success.

Although the confirmatory evidence of the discovery of hooklets is wanting, there can be no doubt that this was a case of echinococcus infesting the liver. The history of the case, and the character of the fluid withdrawn, which, in respect of the absence of albumen and the presence of a large amount of chloride of sodium, corresponds with the fluid contents of hydatid cysts, but differs from the contents of any other cavity of the body, are decisive as to the nature of the affection. From the slow growth of the tumour and its comparatively small size, we may conclude that the echinococcus was of that simpler form which developes only one head, and does not proliferate into secondary and tertiary hydatids contained within the parent cyst. The number of hooklets would, therefore, be limited to those upon a single head, from which their previous separation would be necessary to secure their appearance in the fluid withdrawn. The small calibre of the tube of the aspirator is also unfavourable to the transmission of solid particles.

In the JOURNAL of April 3rd, 1869, I reported a case of hydatid of the liver successfully treated by evacuation by means of an ordinary trocar and a cannula of ordinary dimensions. In the fluid withdrawn through this larger tube, a considerable number of hooklets were detected; but, before making this larger aperture into the cyst, it was thought necessary to adopt measures to excite inflammatory adhesion between the opposed peritoneal surfaces in the situation of the puncture, which precaution may be dispensed with in using the slender tube of the aspirator of which the puncture closes up as the tube is withdrawn. It is a great advantage in the use of the aspirator that we are relieved from the necessity of any tedious and painful precautions against the escape of the contents of the hydatid into the peritoneal cavity. Whether there may be any practical disadvantage, on the other hand, in the inability of the aspirator to effect the discharge of any more solid contents of the cyst, may be doubtful. I believe that the withdrawal of the fluid with which the cyst is charged deprives the parasite of its life, and is, without any other means, an efficient cure of the disease, the membraneous walls shrivelling up, and the proper parenchyma of the affected organ closing up the cavity and gradually returning to its natural condition. But no other treatment without evacuation is of any avail. It would seem to be a proper precaution, in using the aspirator, not to exhaust the cavity operated upon too completely. The suction of the instrument might make a partial vacuum in the cavity, if carried to its full extent, which might lead to the admission of air, or blood, or other fluid, occasioning inflammation and serious consequences.

As to the mode of introduction by mouth into the body of this patient of the embryo of this species, it is impossible to give information. The mature tænia does not inhabit the intestines of man, but of the dog. From its very small size (not half an inch long), it is rarely seen; but its ova are very numerous, and may chance to get into drinking water, or upon vegetables used for food, and so be introduced into the human stomach, whence the embryos migrate to the liver or some other part; the liver being by far the most frequently selected. Owing to the slow growth of the hydatid in its early stages, a considerable time may intervene between the introduction of the ovum into the body and the appearance of the disease, which may throw still more obscurity over the time and mode of introduction.

I have seen this patient after an interval of several weeks; she continues quite well; there is no return of the tumour.

NEWCASTLE-UPON-TYNE INFIRMARY.

REPORT OF A CASE OF HYDATID DISEASE OF THE LIVER, TREATED BY PUNCTURE.*

By G. H. PHILIPSON, M.A., M.D.Cantab., F.R.C.P.Lond., Physician to the Infirmary, etc.

JOHN H., aged 14, apprentice to a stonemason, living at South Shields, was admitted as an in-patient at the Newcastle-upon-Tyne Infirmary, under my care, on September 18th, 1873. His mother, who accompanied him to the infirmary, stated that for ten months she had been aware of an enlargement in the right side of his abdomen, which, for the first three months, was not larger than an ordinary sized hen's egg, but, since that time, had been gradually becoming larger and more prominent. Upon inspection, it was noted that the contour of the abdomen was not uniform; that there was a protuberance of the right hypochondrium and epigastrium, which was most prominent to the right. where it was distinctly globular. The right half of the thorax was also seen to be dilated, the lower ribs being moved forward and outward. Upon palpation, the enlargement was readily recognised to be connected with the liver, and was smooth on the surface, elastic, and fluctuated. Upon percussion, the protuberance was found to be perfectly dull and without fremitus. No pain was produced either by firm pressure or on percussion. The liver-dulness, upon percussion, was found to be five inches and a half in the middle line, commencing two inches above the umbilicus, and six inches in the nipple line, commencing one inch and a half below the right nipple. The circumference of the abdomen, taken five inches above the umbilicus, was twenty-nine inches. The line of dulness of the lower border of the liver was irregular. The level of the lower border of the liver was altered by respiration—an evidence that the liver was not adherent to the abdominal wall. There was no icterus or ascites—an indication that neither the biliary ducts nor the branches or trunk of the portal vein were compressed.

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* Read at the autumnal meeting of the North of England Branch.

The boy was of the sanguineous temperament; was well developed for his age, and was well nourished; indeed, his general appearance was that of perfect health and of good constitution.

Hydatid disease of the liver was diagnosed. This supposition was based upon the presence or absence of the following symptoms and physical signs: the absence of evidence of serious disturbance of the general health, jaundice, ascites, or any marked sign of gastric or intestinal irritation, or local pain, or fever: the manifestation of an increase in the size of the liver, and the presence of a globular and elastic tumour in the hepatic region: the slow, but steady growth and development of the tumour, the smoothness of its surface, and the irregularity of its lower border: the uniform manner in which the thoracic and abdominal parietes were raised. It was also surmised that the cyst was single, from the absence of fremitus and the distinctness of the fluctuation. The bowels were unloaded by a dose of castor-oil, and the evacuations were carefully examined, but not anything abnormal was observed. He was then ordered iodide of potassium in doses of five grains three times each day.

October 10th.—The circumference of the abdomen, taken at the same time as on September 18th, was found to be thirty-one inches and a half—an increase of two inches and a half in the three weeks. He complained of increased difficulty in breathing and of general discomfort. As it was considered that, in all probability, the cyst was large, with thin walls, and that there was considerable apprehension that it might rupture, it was deemed expedient not to leave the patient to the unaided efforts of nature, but to afford relief by paracentesis. For, although, in certain exceptional cases, hydatid cysts of the liver have undergone spontaneous cure, yet, sooner or later, cysts of large size often lead to very serious consequences, the event above all that was to be feared being rupture of the cyst and discharge of the contents into the peritoneum or pleura, and, as a consequence, it might be, fatal peritonitis or pleuritis.

The operation having been determined upon, it was performed without delay by Mr. George Rowell, junior house-surgeon. A fine trocar and cannula were employed, and twenty-three ounces of clear colourless liquid were withdrawn. As it was conjectured that the liver was not adherent to the abdominal wall, very great care was taken when the cannula was withdrawn, in order that not any of the liquid should enter the peritoneal cavity. After the cannula was withdrawn, the punctured portion of the abdominal wall was pressed against the cyst-wall for some time with the fingers, until it was thought that the edges of the small wound in the cyst-wall would be closely approximated. A graduated compress and abdominal bandage were then carefully applied, and the patient was enjoined to be kept perfectly quiet, in the recumbent position, for forty-eight hours, and six grains of the compound powder of ipecacuanha were administered. No untoward symptom occurred, and the boy was so well, that he was made an out-patient on October 25th.

The liquid, when examined, was found to be of specific gravity 1010, alkaline, and yielded no albumen upon being treated by heat and nitric acid; but, upon the addition of a solution of nitrate of silver, a copious white precipitate was formed—the evidence of the presence of chlorides. Upon careful microscopical examination, no claws of the echinococci were discovered.

January 1st, 1874.—It was noted that the boy was looking in good health; that his body was well nourished, and that, upon examination, no tumour was discoverable in the hepatic region. The liver-dulness, upon percussion, was carefully estimated, and it was found to be, in the middle line, three inches and a half (two inches less than before the operation), and in the nipple-line three inches (three inches less). The measurement of the abdomen, at the same line as on September 18th, 1873, was twenty-six inches and a half (five inches less than before the operation).

September 2nd, 1874.—After careful examination, it was determined that the liver was not adherent to the abdominal wall. The boy looked strong and healthy, and had been regularly at his employment as a stonemason's apprentice since his discharge from the infirmary on October 25th, 1873.

Remarks.—In its etiology and in the manifestation of morbid phenomena, the interest of this case rests upon its being an instance of the occurrence of hydatid disease in childhood, and of the absence of the fremitus significant of hydatid disease, the other symptoms and physical signs being characteristic of the disease. The absence of the fremitus may be explained by the cyst being solitary and sterile. Such hypothesis was based upon the appearance of the liquid withdrawn and upon the absence, upon microscopical examination, of any evidence of the presence of daughter-cysts.

The favourable result also of the operation, doubtless, was due to the cyst being solitary and barren: the withdrawal of the contents of the cyst by simple puncture being sufficient, and it being deemed unnecessary to have recourse to the more hazardous procedure of subsequent injection. Happily, the two principal dangers which are to be feared after the operation of simple puncture—viz., the occurrence of peritonitis, from the escape of a portion of the liquid into the peritoneum, or suppuration of the cyst, from the entrance of air—would appear to have been absent; their non-occurrence, it may be assumed, being owing to the care that was observed in the withdrawal of the cannula and in the closure of the puncture made by the trocar. This case further shews that it is unnecessary to wait for the formation of adhesions between the liver and the abdominal wall, or to endeavour to induce them; for, from the physical examination eleven months after the operation, the liver was regarded as unbound to the abdominal wall.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

NOTES OF SIX CASES OF HYDATIDS OF THE LIVER TREATED BY PUNCTURE.*

By J. B. Bradbury, M.D., F.R.C.P., Linacre Lecturer on Physic, and Physician to the Hospital, etc.

[Continued from page 526 of last number.]

Case III.—Susan Unwin, aged 23, single, living at Little Chesterford, was admitted into the hospital December 10th, 1872, under the care of Dr. Paget, to whose kindness I am indebted for three of the cases. When she was about seventeen years old, she first noticed a round tumour, about the size of a nut, in the right hypochondriac region, which had since gradually increased in size. Six weeks previously to her admission into the hospital, she began to feel cutting pains in the tumour, especially at night, after sitting up most of the day. Since then, according to her statement, the tumour had rapidly increased in size, seeming to extend downwards. The tumour was found to occupy the right hypochondriac region, and had many of the characters of a hydatid tumour.

March 18th. The patient was compelled to keep her bed, as the pain was much greater when she was not in the recumbent position. The pain was now felt as much in the right shoulder and between the scapulæ as in the right side.

April 10th. When sitting up, she suffered much from feelings of faintness, not amounting to actual syncope.

May 14th. She had vomited several times lately, the vomited matter being of a yellowish colour.

May 18th. The right side measured from the lower end of the sternum to the spine fourteen inches and a half, the left side fourteen inches. The tumour extended to about one-third of an inch above the umbilicus. She vomited last night and again this morning. She suffered much from nausea. Bowels regular. At 11.30 A.M., Dr. Humphry tapped the tumour at its most prominent part, viz., the middle of the right hypochondriac region, by the needle of the aspirator. About sixteen ounces of clear fluid were drawn off, which contained no albumen, but much sodium-chloride.

For some days after the withdrawal of the fluid, there was a considerable elevation of temperature, amounting on the evening of May 21st to 102.8 degs. F. A corresponding increase in the frequency of the pulse was also noticed.

May 19th. There was redness of the skin of the abdomen and back. The patient complained of pain and swelling over the seat of the puncture. She was thirsty, her appetite was impaired, and the bowels confined. The tongue was also coated with a white fur.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

May 20th. The tongue was dry and coated with a yellowish fur. The bowels were still confined. The redness was declining. She complained of a constant pain in the body, and of a sharp shooting pain darting across the body. The abdomen was not distended. She was ordered one grain of opium and one of calomel immediately, and half a grain of powdered opium and the same amount of calomel every six hours.

May 21st. Tongue somewhat cleaner. The bowels had not acted since the 18th. There was less tenderness and less redness over the abdomen. She had a headache, and vomited once in the night.

May 22nd. She vomited again last night. The bowels were still confined. She was ordered a common injection, and the calomel and opium pill at bed-time. There was less tenderness on pressure over the abdomen, and the redness had now entirely disappeared. She vomited once during the day.

May 24th. She still complained of pain in the right side, but the general condition was much improved. The tongue was clean and moist; the appetite improved. The bowels were opened this morning.

May 26th. She had now scarcely any pain in the seat of the former tumour.

June 6th. The tongue was slightly furred; the appetite impaired. The bowels were opened daily. She had vomited several times lately; yesterday after every meal. She complained again of a sharp pain round the upper part of the abdomen. The temperature had been a little higher during the last two days.

June 18th. She had had much pain in the right side since yesterday afternoon. Tongue somewhat furred. She complained of nausea. Bowels open. Evening temperature, 101.6 degs. F. Pulse, 132. The urine had never contained albumen.

July 7th. Tongue clean. Bowels regular. Appetite good. She had now very little pain in the right side, and the swelling had entirely disappeared. She could walk about quite comfortably, but lifting any heavy weight gave her pain in the right side.

She was discharged cured.

On August 24th, 1873, the patient returned to the hospital, complaining of pain in her right side. The pain left her after a few weeks; and, when she was last heard of, she was perfectly well.

CASE IV.—Ann Allen, aged 32, married, living in Cambridge, was admitted into the Hospital, April 9th, 1873, under the care of Dr. Paget, having for some time previously been an out-patient. She first noticed a tumour in the pit of her stomach seven years and a half ago, her attention being drawn to it from the circumstance that her dresses were getting too tight for her. The tumour was then about half the size it was at the time of her admission. From the time she first noticed the tumour, it continued to increase in size for two years and a quarter, at the end of which time the greatest measurement round the abdomen was twenty-nine inches, and the tumour seemed about as large as it was when she became in-patient. At that time (*i. e.*, 2¼ years after the swelling was first noticed, and 5¼ years ago), she stated that after a fit of laughter she suddenly became very ill, suffering from general dropsy and some skin-eruption; and also that afterwards the tumour seemed to diminish, and in fifteen months it had almost entirely disappeared. Then, again, it began to enlarge, and it continued to increase steadily up to the time of her admission. For the last two years the tumour has been somewhat tender in parts, and during the last year she has had a dull aching pain below the left breast. For a fortnight before her admission, she had a sharp pain in the same situation, and a "catch in her breath". Her appetite and digestion had been good, and her strength and nutritive condition had suffered little impairment. There had never been any jaundice, nor any symptom of portal obstruction.

State on Admission.—On inspection, a large tumour was seen occupying the epigastric and hypochondriac regions. The tumour (which seemed undoubtedly connected with the liver) occupied also parts of the lumbar and umbilical regions. There were two or three elevations on the surface of the tumour, and these gave some slight sense of fluctuation. The percussion-note was absolutely dull all over the tumour. The hepatic dulness extended to within an inch and a half of the right nipple, and on the left side it was continuous with the cardiac dulness. In the right axillary line, the dulness extended to within six inches of the middle of the axilla.

April 11th. Dr. Humphry introduced a needle of the aspirator, and drew off a small quantity of fluid of the colour and consistency of pus. A trocar and cannula were then used, and about nine ounces of fluid removed. The first part of this fluid was quite clear, and the remainder resembled that which was first drawn off by the aspirator. An India-rubber tube, passed through the cannula, was then fastened in the cyst (the cannula having been withdrawn). On microscopical examination, the fluid was found to contain numerous fat-particles, granular matter, a few pus-corpuscles, and a great quantity of cholesterine crystals. The fluid was rendered slightly more viscid by adding liquor potassæ.

On the nights of April 12th and 13th, the patient did not sleep well; but this was not owing to any pain or distension of the abdomen. The bowels were confined.

April 14th. From 6 to 7.30 P.M. last evening, there was a free discharge through the drainage-tube, and a slight discharge through the night. She slept very little during the night, and complained of great pain in the head, and of soreness at the point of entrance of the tube. In the evening, the temperature was 103.2 deg. F., and the pulse 122. The bowels acted twice after taking castor-oil. The appetite was impaired, and she could only take milk. The abdomen was somewhat distended and tympanitic, but there was no marked tenderness on pressure.

April 15th. Temperature 100.6 deg. F. Pulse 109 in the morning. She slept fairly last night. There was a free discharge from the tube. The abdomen was still slightly distended, and a little tender on pressure.

April 20th. The bowels had not acted since the 14th till to-day, and then only after an injection. The fluid from the tube this morning was found to consist almost entirely of pus.

April 29th. There was now very little discharge through the tube, but a free discharge from the opening by the sides of the tube. Since the 16th, rhonchal sounds had been heard all over the front of the chest, but less during the last few days. Cough was, however, very troublesome, and gave her great pain in the tumour. The bowels were opened yesterday, and on the 26th. Appetite fair. Tongue rather dry. No tympanitis.

May 1st. This afternoon, two small hydatid vesicles were expelled through the tube. Face much flushed. Pulse 124. Temperature last evening, 104.2 deg. F.; this morning, 102 deg. Rhonchal sounds were more audible in various parts of the front of the chest.

May 2nd. She passed a restless night. Bowels costive.

℞ Chloral hydrat. gr. xv; syrupi aurantii ʒj; aquam ad ℥j. M. Fiat haustus, quâque nocte sumendus.

℞ Magnesiæ sulphatis ʒijss; magnesiæ carbonatis gr. xv; aquæ menthæ piperitæ ℥jss. M. Fiat haustus, cras mane sumendus.

May 4th. She slept fairly well last night, but perspired much. The cough was still very troublesome, and she was unable to raise the phlegm, on account of the pain caused by expectorating. There was a free discharge from the wound, and hydatid vesicles were passed from time to time.

May 5th. She was ordered a pint of porter and three ounces of sherry.

May 6th. She slept badly, being disturbed by a noisy patient in the ward. Pulse 100, feeble. The face was slightly flushed. She had occasional slight shivering, and perspired much.

May 9th. She took food well. She still shivered a little, and perspired much. The bowels were opened twice yesterday. The tongue was thinly furred. The cough was still troublesome. She had no draught last night, and slept fairly well.

May 10th. There was still a free discharge from the wound, and three vesicles passed this morning. She slept well.

May 14th. A larger tube was introduced on the 12th, and this was followed by a free discharge, and two cysts of moderate size came away. The cough was still very troublesome; loud rhonchus was heard in the upper part of the chest. On the 15th, the measurement was twenty-eight and a quarter inches; on the 17th, twenty-eight inches.

On May 16th. A very copious discharge and several vesicles came away.

May 23rd. A larger tube was introduced together with a laminaria-tent, and, in changing the tube, there was a very free discharge (fifty-two ounces). The cough was still troublesome. She perspired much whenever she fell asleep. Evening temperature, 102 deg. Fahr.

May 24th. The large tube, together with the laminaria-tent, were removed; this was followed at once by the most profuse discharge, and expulsion of several small vesicles, together with one large dark coloured cyst, probably the parent cyst, with walls much thickened The wound was left to drain through the day, and, in the evening, the old drainage-tube was again introduced. The girth of the abdomen at the most prominent part was twenty-seven-and-a-quarter inches. The tumour appeared considerably diminished in size.

May 27th. There was now very little increase of hepatic dulness. Rhonchal and sibilant sounds were still heard all over the chest. She took one pint of stout, one pint of mutton broth, two pints of milk, and three ounces of sherry, in addition to a slice of meat for dinner. Evening temperature, 102 deg. Fahr.

June 7th. The bowels now acted regularly. Yesterday, sixteen ounces of thick brownish-red pus came away from the wound, together with a number of small cysts.

June 13th. Her cough had been easier lately. There was good vesicular breathing all over the chest. The wound still discharged a little. She perspired much. The appetite was not quite so good.

June 14th. She was ordered two grains of sulphate of quinine three times a day.

June 16th. The discharge was somewhat offensive in smell, but less copious. She complained of feeling weak.

June 21st. The urine contained much albumen.

July 7. The catamenia had not appeared for the last two months. Rhonchus was heard over the front of the chest; the cough was not very troublesome.

July 9th and 14th. The urine still contained a trace of albumen.

July 19th. On the 16th, a laminaria-tent was introduced, and the opening in the abdomen enlarged. On the 17th, a larger tube was introduced, and a large quantity of pus has since drained through it, but no hydatid vesicles.

July 25th. She had no cough. There was good vesicular breathing all over the front of the chest, and no rhonchus or sibilus could be heard. The discharge was less in amount, more healthy in appearance, but still somewhat fœtid. The patient's general appearance was much improved.

August 2nd. The urine still contained a trace of albumen; it was of specific gravity 1020.

August 9th. She left the hospital to-day at her own request. The drainage-tube remained in the wound, and there was a slight discharge. In other respects she was quite well. She continued as an out-patient until the wound quite healed.

This patient came as an out-patient, under Dr. Bradbury, in March 1874, for a cough, etc., but there was then no evidence of any hepatic tumour. Under treatment, the cough left her, and, when last seen, she was quite well.

[*To be concluded.*]

NOTES ON BOOKS.

DUNGLISON'S *Medical Lexicon* (J. and A. Churchill) is a valuable dictionary of the terms employed in medicine and the allied sciences, and of the relations of the subjects treated under each head. It reflects great credit on its able American author, and well deserves the authority and popularity to which it has attained. A smaller and more concise lexicon of equal merit is still a desideratum in medical literature.

DR. BUZZARD'S little monograph on *Clinical Aspects of Syphilitic Nervous Affections* (Churchill, pp. 148, small 8vo) is a very intelligent and careful study of a class of cases which, if they are capricious and variable in character and symptoms, yet repay the more the most careful study, in that they are more amenable to a simple and well defined medication than most other cases of disease. The success of the ordinary antisyphilitic treatment is indeed, in many of the cases, the touchstone of diagnosis. Wilks, Lancereaux, and Hughlings Jackson have already realised an immense progress in the pathology, diagnosis, and treatment of syphilitic diseases of the nervous system. The field is one still open to successful cultivation. Carefully studied cases, such as these, are useful contributions, which will serve to advance knowledge.

MR. JAMES HINTON'S *Questions of Aural Surgery* (King and Co., 1874, pp. 304) is a valuable legacy to aural science by the able disciple and worthy successor of Toynbee. Mr. Hinton's retirement from practice in the prime of life, and at the time when his experience and powers of treatment were most fully ripened, is a matter of great regret. More than any one else who could be mentioned, he was fitted to advance our knowledge, to criticise and estimate the contributions of foreign workers, and to lead the British school of aural surgery which Toynbee founded. The perusal of these chapters will add to the high estimate which had been already formed of Mr. Hinton's capacity. Unfortunately, British surgery has done but little for many years to advance the knowledge of aural disease; and nothing has been published here for many years which is more than the repetition or the application to practice of German and American work. With the retirement of Mr. Hinton, the British school of aural surgery comes to an end. We must look to such men as Dalby, Laidlaw Purves, Cassells, and Argyll Robertson to found it anew. At present, there is not anywhere in Europe anything which can be called a school of aural surgery, except in Germany and Austria.

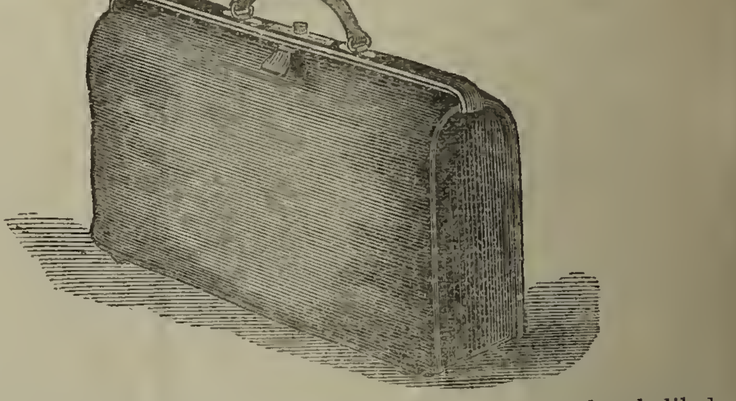
DR. GAILLARD THOMAS'S *Practical Treatise on the Diseases of Women*, a standard and almost classical work on the subject by an eminent American obstetrician, reaches us in a fourth edition. It well deserves its popularity. The main feature in the preface (always an interesting part of a book which has gone through many editions) is the author's strong plea for the universal introduction of the lateral or Marion Sims's method of speculum-examination, in preference to the dorsal method which almost universally prevails. "He looks upon the introduction of the lateral method of speculum-examination as a great advance in gynæcology; he regards it as a method which puts him who practises it upon a decided vantage-ground over him who employs the dorsal method; and he confidently looks forward to the day when the great superiority of the levator perinæi speculum will cause it to supersede all others."

THE appearance of a tenth edition of MR. SQUIRE'S *Companion to the British Pharmacopœia* speaks strongly of the continued favour with which this valuable practical handbook for pharmaceutists and prescribers is regarded. It speaks also of the continued care with which its veteran author labours to make it more worthy of that favour. It includes now, of course, the recent additions to the *Pharmacopœia*. It has also a capital descriptive index to all the known mineral waters of Europe, and their properties. It is an indispensably useful book to every one who uses the *Pharmacopœia*.

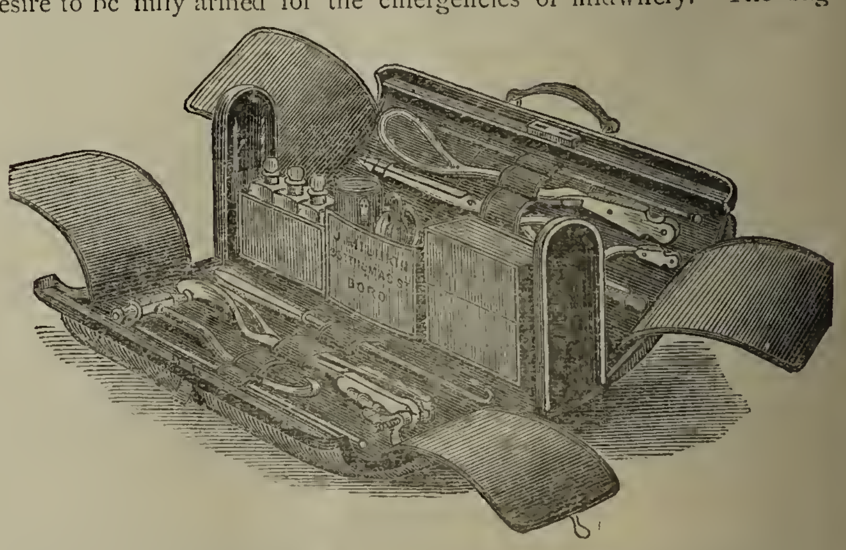
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. BARNES'S OBSTETRIC BAG.

MR. J. MILLIKIN of St. Thomas's Street, Borough, has submitted for inspection a new and very portable obstetric bag, arranged for Dr. Barnes, and manufactured entirely in accordance with his suggestions.



It is a very convenient and complete bag; and is, we apprehend, likely to meet with approval and patronage from obstetric practitioners who desire to be fully armed for the emergencies of midwifery. The bag contains Dr. Barnes's long midwifery forceps, his craniotomy-forceps, perforator, blunt hook, crotchet, and dilating bags; as well as frænum-scissors, female and other catheters, quill for puncturing membrane, chloroform-inhaler and drop-bottle, uterine syringe and enema-tube, and stoppered bottles for ammonia, ether, tincture of opium, etc.



BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 31ST, 1874.

DR. LETHEBY ON DEATH-RATES.

THE atmosphere which surrounds medical officers of health is not always *couleur de rose*, and those who are appointed to communities whose sanitary condition needs reform, and who are yet powerless to get that reform carried out, are not to be envied. In too many instances, the health-officer (perhaps only appointed for one year) is expected, by the mere virtue of his appointment, to make an unhealthy population healthy, although all his suggestions for sanitary reform may be disregarded; and, if this result do not follow, it is still sought to saddle the medical officer with the responsibility. It is, indeed, not difficult to imagine cases in which the publication of death-rates by the Registrar General, or anyone else, would become a personal, if not a "public nuisance". We cannot, however, help thinking that the Society of Officers of Health will, on due consideration, see good reason to regret the tone, if not much of the matter, of the Presidential Address which was delivered at the opening of their session of 1874-5, and which has gone forth to the reading public, endorsed with their authority and sanction.

So far as Dr. Letheby is concerned, it is very evident that he was far too intent upon making the most of a favourable opportunity to indulge his favourite antipathy to the Registrar-General and his staff, to consider whether unqualified denunciation of the value of death-rates, invested with the authority of the Society of Officers of Health, would help forward or hinder the cause of sanitary progress. Among thoughtful students of vital statistics, Dr. Letheby's address can do no harm, nay it may be useful, as it has prominently brought before their notice a number of the influences which affect death-rates in different sections of the community, although they do not destroy their value. Even the rapidly increasing portion of the public that believe in sanitation will not allow this paper, however much they may be startled by the boldness with which Dr. Letheby states his case, to shut their eyes to the fact, that sanitary progress owes its beginning, its progress, and its present hopeful condition, to the publications which have emanated from the Registrar-General's office during the past thirty-five years. There is, however, unfortunately not only a numerous, but a powerful party in the country, especially rampant among guardians who constitute a large proportion of our sanitary authorities, which possesses a profound contempt for sanitary measures, combined with a keen antipathy to their cost. To this party, Dr. Letheby's paper will be most thoroughly acceptable, and they will not soon tire of quoting his authority, for, in future, ignoring the fact, that a high death-rate signifies unsatisfactory sanitary condition. No stronger evidence of the mischief which this address may do in uninformed quarters is needed than the fact, that its publication was immediately followed by leaders in two daily papers of large circulation, in which Dr. Letheby's assertions and unsound conclusions were fully endorsed. Guardians might not have had implicit faith in Dr. Letheby; but in Dr. Letheby, endorsed by a leader in the *Telegraph*, what guardian shall disbelieve?

It is impossible, within the limits of a short article, to attempt to discuss seriously the grounds on which Dr. Letheby vigorously declares that a death-rate—that is, the simple proportion of deaths to population, taken as a test of sanitary condition—is not only utterly unreliable, but mischievously delusive. It is evident that, if this assertion were true, or even approximately true, the publication of returns of mortality would not only lose their interest, but also their value and usefulness, because no other standard in place of the population standard, which would render the comparison of the mortality in different portions of the population possible, is even suggested. Fortunately, however, all the points which Dr. Letheby has recently again urged against the value of death-rates have been often discussed and considered in the publications of the Registrar-General on the mathematical authority of Dr. William Farr, F.R.S., whose reputation as a statist is too firmly and too widely established to require eulogy here. It did not need Dr. Letheby to tell us that the immigration and emigration that are always going to and from town-centres; that the varying proportion of persons living at the different groups of ages; that the number of domestic servants, and a hundred other incidental conditions of different populations, affect their death-rates. The veriest tyro in vital statistics knows and freely acknowledges this, and also that similar influences are at work in all towns. The important question, however, is, whether, if all possible corrections for these varying influences were carried out in calculating rates of mortality, would a high rate ever be turned into a low one, or would any rate be really seriously raised or depressed? Those who have worked long and earnestly at such calculations know well that it would never be the case. If Dr. Letheby would take a town which the Registrar-General shows to have a high death-rate, and prove that it really has a low death-rate—in other words, that it is a healthy town—or, by skilful manipulation of figures, prove that a town, which, by the Registrar-General's standard, has the reputation of being healthy, is in reality only enjoying a fool's paradise, then will be the time to seek seriously for some more reliable standard for measuring mortality than the proportion of deaths to population.

The pertinacity with which Dr. Letheby clings to his axiom that "the birth-rate is the controlling element of the death-rate", is worthy of a better cause, but is at the same time the strongest evidence of his reluctance to believe that he can be wrong. This blunder has been exposed so often that it is hardly worth discussing; but, as it is again made to occupy an important place in Dr. Letheby's address, a word or two on the subject may in conclusion not be out of place. The proportion of infants under one year of age in a population varies, according to the birth-rate, only between about 25 to 35 in a population of 1,000; it follows, therefore, that, so far as this age is concerned, any influence upon the death-rate of the whole thousand which the birth-rate exercises is confined to an extreme difference of about 10 infants. All children under five years of age do not average more than 100 per 1,000, whereas the proportion of persons aged 60 and upwards averages about 126. As the rate of mortality among children under 5 years is lower than that among persons aged 60 years and upwards, it follows that the average rate in a thousand depends fully as much—nay, more so—upon the proportion of elderly persons as upon that of infants. It often happens that the effect upon the death-rate produced by a low proportion of young children is more than counterbalanced by a high proportion of elderly persons; this is usually the case in agricultural populations. The *normal* death-rate in a population having a high birth-rate, calculated in accordance with the English Life Table, with reference to the distribution of the population at different ages, is almost invariably lower than that of a population with a low birth-rate. This is no theory; it can be tested by anyone who will take the trouble to make the calculation. The reason is that, to produce a high birth-rate, you must have a large proportion of young adults, the death-rate among whom is so much lower than at any other group of ages. Dr. Letheby, however, is not amenable to this mode of reasoning: he declares that seeing is believing, and so far recalls Byron's famous description of a Turkish Sultan:

> "Who saw with his own eyes the moon was round,
> Was certain that the earth was square,
> Because he had journeyed fifty miles and found
> No sign that it was circular anywhere."

Dr. Letheby finds that in all the English counties which show high death-rates, there also prevail high birth-rates. What further proof is necessary that the high birth-rates cause the high death-rates? It is, indeed, difficult to deal with such argument seriously. The fact is that both the high birth and death-rates in counties are due to the proportion of urban population they contain, because birth and death-rates are usually higher in town than in country. The towns attract as immigrants large numbers of young adults from rural districts, and, as wages are higher in towns, larger proportions of them not only marry, but marry young; hence the high birth-rate. The causes of high death-rates in towns are too well known to require enumeration, but the high birth-rate has nothing to do with it, because the unduly high proportion of young adult lives and the small proportion of elderly people far overweighs the effect of the deaths of the few more infants. All sanitary conditions being equal, the death-rate should be lower in a community with a high birth-rate than in one with a low birth-rate.

On a future occasion, we may have to consider in detail other of Dr. Letheby's assertions and conclusions, some of which, although appearing specious at first sight, are as untenable as his birth-rate theory, and certainly do not warrant our surrendering the population standard for death-rates, which has been so infinitely useful in educating the public mind in sanitary matters.

LEAD-POISONING.

PUBLIC attention is, we are glad to see, being once more directed to the danger resulting from the use of leaden pipes for water-conveyance. That lead-poisoning is common when ordinary precautions are neglected is not to be doubted, and only a persistent exposure of the evil of using lead cisterns and, under certain conditions, leaden service-pipes will ever remove the evil from our midst.

If leaden pipes were used only in the conveyance of water from springs to proper cisterns, and the water were to flow in them continuously without plugs or stopcocks, the danger would be trifling. But when water is brought in leaden pipes from a distance of forty feet and upwards, and allowed to remain in a leaden cistern until required for culinary purposes, cases of colic, constipation, and insidious lead-poisoning are but too apt to follow after a lapse of time. If the water be sluggishly drawn from a long distance in lead pipes with very little fall, similar evils will be engendered. It is also upon record that, when water at a high temperature is transmitted through leaden pipes, the corrosion of the pipes will be enhanced. Moreover, if the water conveyed in the lead pipes be charged with salts of iron, as is frequently the case, soluble salts of lead will be produced, and persons making use of the water for drinking will certainly suffer from lead-diseases. The same galvanic action sometimes ensues when iron rust from the mains gets into a service-pipe of lead. Even when leaden pipes are led over the house from the boilers of kitchen fires, the rust in the latter will produce this corrosion, and consequently affect the water for evil.

Another frequent cause of lead-poisoning results from allowing the suction-pipes of wells containing drinking-water to be made of lead. These pipes dip frequently to within a foot of the bottom of the well, and when taken up—seldom, unfortunately, except from old age—they will be found to be coated outside and inside with carbonate of lead, and to be very much eroded. Cases of poisoning have also occurred owing to the drinking of water which was drawn through a lead syphon inside the barrel. It is even very necessary to see that the bucket which is used in withdrawing the water from wells is above suspicion, for lead-colic has been traced to the use of a bucket fashioned out of an empty white-lead keg. If pipes of lead are used for the dispersion of the water to various parts of the household—as is commonly the case—at such places where the pipes are sharply bent, corrosion will especially manifest itself. The same excessive amount of deposit will also be discoverable where solder joints and metal stopcocks are in contact with the lead. When mortar or plaster falls into a lead-lined cistern, or is carried into a leaden pipe, corrosion also rapidly follows.

If a piece of lead be put into rain-water, an immediate action follows; and if the liquid be agitated, soon afterwards a great quantity of white scales will be observable. Should a piece of lead be half submerged in hard or soft water, a few days will suffice to exhibit on the lead at the water-line crystals of lead of various kinds, well known to science as inimical to health. On leaden pipes which are fixed upon walls outside the house, or exposed in any way to dampness, a bluish-grey coating will also be seen to form. This suboxide is, however, nearly insoluble, and, therefore, unlike the oxide or hydrate which is formed on the pipes which are immersed in the cistern or well, or which remain charged with water. It must be admitted, notwithstanding, that, under certain favourable conditions of the water-supply, as, for instance, when the water itself is charged with certain salts, the deposit found upon the pipes will prove rather protective from poisoning than anything else, the coating being practically insoluble and keeping the water from direct contact with the metal. It would not be possible, we are afraid, to examine every water-supply throughout the land, and the only safe plan is to discard lead altogether from all contact with our potable water.

That lead is a dangerous poison is incontestably true. One-tenth of a grain per gallon will sensibly affect health, and no water containing more than one-twentieth of a grain per gallon should be used for cooking or drinking. Very fortunately, pipes have been brought into notice of late years which are meant to obviate the chances of poisoning water. The block-tin encased leaden pipe is an example of these; and, provided only that the joints are properly made and the continuity of the tin not interfered with, lead-poisoning cannot possibly follow. Iron pipes coated inside with enamel and other preparations are also common amongst us.

Whilst treating of this subject of lead-poisoning, we might just glance back at some thirty years ago, and notice how our artisan workers in lead fared. We owe them this attention, for it is undoubtedly owing to the notice which was taken of their sufferings that this cry against leaden cistern and service pipes has passed through the land. Before the introduction of the long flues through which the fumes produced during smelting are made to pass, lead-poisoning was very common in lead-smelting works. In the manufacture of white-lead also, and when the rolls of metallic lead were frequently handled whilst putting them into the earthen vessels in order to remove the carbonate, injurious effects were always sooner or later produced upon the workpeople. Nowadays, this item of manufacture is greatly improved, for flat plates are used, and a spontaneous process induced which converts nearly the whole of the metal into carbonate. Even as it is, the unpacking of the stacks, the grinding of the white powder, the drying in the oven, the carrying of the powder to the stores, and the beating down of the powder into the casks, which process permits a certain diffusion of the powder in the air, is sufficiently fraught with danger to the workpeople.

The manufacture of red-lead, which requires far less manipulation than white-lead, is, therefore, more free from danger to the workmen employed. The results of oxidation have also less tendency to fly about, and the packing is conducted without ramming into the casks.

It has been customary to point to the house-painting trades as evidencing the dangers which accrue from working in lead, and the painter's colic has passed into a proverb. This was common enough, it is true, when the painters persisted in following their occupation in the same clothes as worn when work was over, and until the cloth was literally painted over seven or eight coats deep with preparations of lead. Now, however, the men, as may everywhere be seen, have taken to wearing suits of white holland, which are frequently washed, and the disorder has nearly died out. The same improvement is of late noticeable amongst plumbers, who formerly were equal sufferers from their contact with lead. Hand-labour in the processes of manufacturing articles of hygiene, etc., has largely been replaced by machinery; but, above all, the introduction of lavatories in the works has been followed by excellent results. And if we examine the reports handed in from printers, type-founders, and shot-makers, who exclusively work in lead, we shall find, says Dr.

Whitley, that the industrial disease called lead-poisoning has considerably abated. When the printers used to dry their type at open fires, and handle the metal in its moist condition, and when the type-founders were compelled to rub the sides of each type upon stones, in order to give them finish, severe cases were not unfrequent. The shot-makers have also suffered in times gone by, when the lead was more openly mixed than now. Glass-makers who worked at the batch-work, as it is called, and who allowed the red-lead to remain continually underneath their nails, fell also occasional victims.

White-lead affects the workmen chiefly by inhalation; and researches have proved that comparatively little damage is done by actual contact of the skin, as witness the case of dippers in potteries, whose arms are often immersed up to the elbows in lead-glazes. In the lead-works, the usual form of disorder is colic. Cases of cerebral affection are common; also rheumatic gout. Cases of drop-hand and fatal cases of paralysis are far less frequent than is generally thought. Epilepsy and apoplexy are also rare, but the blue line on the gums is frequent enough. The person drinking water contaminated with lead for a length of time lays himself open to all these disorders.

Since the introduction of the improved systems of manufacture, and the enforcement of certain sanitary measures—such as the banishment of food from the work-rooms, the washing of the hands and mouth previously to feeding, the use of aperient drinks, and, above all, free ventilation—the mortality in lead-works, we are informed, has wonderfully decreased. Most cases of lead-poisoning now are either traceable to the previous intemperance and uncleanliness of the sufferer himself, or the weakness and unfitness of the person for so trying a trade. Some people are also extremely sensitive to depressing influences, and illness is rapidly produced.

In conclusion, we can only say to those amongst us who are independent of any association with its manufacture or applications—beware of lead in all its forms. Let the use of hair-colouring and hair-dressing preparations holding lead in solution be also discarded. Above all, let us beware of the evils which assuredly accrue from the contact of leaden cisterns and leaden pipes with soft drinking-waters.

THE PATHOLOGY OF HYDROPHOBIA.

Professor Moritz Benedikt of Vienna has had during the past winter opportunities of examining the numerous brains and spinal cords of animals affected with hydrophobia, and has described the results of his observations in the *Wiener Medizinische Presse* for July. Before entering upon the consideration of the anatomical conditions found in the brain of the dog, he points out several differences between hydrophobia of man and the dog.

In both, the disease begins with melancholia agitans. In dogs, this condition lapses into raging madness with sensory disturbances, while in man this form of psychosis is absent. In man, hallucinations and illusions play an unimportant role, while they are frequently present in the dog in a very high degree. In man, there is universal cutaneous hyperæsthesia with marked tendency to convulsion, while in the dog anæsthesia exists, general paralysis occurs, and a high degree of aphonia forms an early characteristic symptom. In man, there is enormously increased reflex excitability in the acts of swallowing, so that not only the contact of the glass with the mouth, but even the sight of fluids, brings on severe spasmodic dysphagia, while in dogs there is a paralytic condition of the muscles of the pharynx and œsophagus. Next to the spasmodic attacks of dysphagia, respiratory spasms are the most prominent symptoms in man, and the majority of patients die during an attack of asphyxia. Such spasms are not noticed in dogs, and they probably die of exhaustion.

Dr. Benedikt has studied the anatomical changes in seven frontal incisions, which were made at various depths through the entire hemispheres of the dog's brain. Numerous vessels distributed to the brain between the coils of the meninges are distended and swollen with blood; further, on their walls and on the finer ramifications of the pia mater are abundant accumulations of inflammatory products. In addition to this, there is on the sides of the vessels an exudation in which numerous inflammatory granules occur, and through which single remaining shreds of the delicate substance of the pia mater extend to the brain. This exudation is highly refractive, colourless, and, examined with a very high magnifying power, consists chiefly of a punctiform or granular mass. In the grey substance of the convolutions of the brain and in other portions of the central nervous system, with the unassisted eye and by the aid of the microscope, there are seen cavities which, with a magnifying power of thirty to ninety diameters, seem to be filled with a highly refractive mass. This mass, examined by a still higher power, is found to consist of a substance either punctiform, or, more frequently, coarse-grained, in which the single granules are about the size of swollen blood-corpuscles. These granules are also hyaline and colourless. The so-called inflammatory granules are present in both masses; they very frequently enclose shining fragments of chemically changed myelin. In these masses which fill the larger chasms, ganglion-cells are either immersed in the greater part of their circumference or entirely enclosed with them. There are also very small cavities completely filled with somewhat duller shining masses. Even the vessels, the smallest ones in particular, have a hyaloid lustre. Many places are markedly injected. After section of the hardened brain, on the slightest compression, a clear shining mass appeared over the whole incision, which under the microscope proved to be myelin. These masses were found abundantly on the prepared sections, and frequently of a glittering greenish hue. Dr. Benedikt has observed a similar appearance only once before, in the spinal cord of a horse which died of rheumatic tetanus. It indicates softening and a deep-seated chemical change of the nerve-tissue.

The anatomical process in this disease consists of an acute exudative inflammation, with abundant hyaloid degeneration, which undoubtedly occurs by transudation and by imbibition of the tissues, and in man the action is ushered in but very seldom by a chill.

A severe outbreak of small-pox has again broken out at Paisley. Over fifteen cases are under treatment in the hospital.

Dr. H. B. Donkin, late of St. Thomas's Hospital, has been elected Assistant-Physician to the Westminster Hospital, in the place of Sir Duncan Gibb, promoted Physician to the Hospital.

Dr. Thompson, Medical Officer for Dumfries, reports that the outbreak of small-pox which prevailed there has now disappeared. Forty-three cases had been treated, many of them of a severe character; but every one had recovered.

An outbreak of typhoid fever is said to have occurred at Darwen, in Lancashire. More than six hundred cases are said to have been reported last week by the medical officer, and twenty-three deaths had occurred.

The Lowestoft port sanitary authorities have determined, in accordance with an intimation from the Local Government Board, that, in future, all persons who die from cholera on board the hospital-ship shall be buried at sea.

A beautiful stained window has been put in the church at Petworth, over the chancel-door, to the memory of our former associate the late William Morris, Esq., surgeon, of that town. The window was obtained by subscription among his fellow-townsmen and others.

Mr. Bright, having been invited to take part in an anti-vaccination movement, declined to take any part therein, or to express any opinion thereon, except that the facts were against the anti-vaccinators. He had, howevever, doubts as to the wisdom of compulsory vaccination, and thought the infliction of penalties on non-vaccinating parents monstrous.

TWO scholarships in Science, of the value of £100 each, have this year been awarded at St. Bartholomew's Hospital; one to Mr. Coates of Balliol College, Oxford, the other to Mr. Saunders of Downing College, Cambridge, these gentlemen having been coupled as of equal merit for the first place in the competition.

THE GERMAN EMPRESS'S PRIZES.

IT will be remembered that, on the opening of the International Exposition at Vienna last year, the Empress of Germany not only gave prizes for the best articles of hospital material exhibited, but also took the opportunity of offering prizes for two treatises: one to form a practical manual of military surgery; the other to be a historical work on the Convention of Geneva. The adjudication of the prizes for these two treatises was fixed for October 18th of the present year, that day being the anniversary of the birth of the Crown Prince of the German Empire. The result has just been announced by the jury of assessors. We are happy to be able to state that the prize for the practical manual of military surgery has been adjudicated to an English surgeon—viz., Surgeon-Major J. H. Porter, Assistant-Professor of Military Surgery at the Army Medical School at Netley. It is a matter for congratulation to the medical officers of the Army, that one of their number should have gained this very honourable distinction. At the same time, the attainment of the prize by the particular officer named, who has only been appointed to the Army Medical School during the present year, affords a proof of the judgment with which the selection for appointments at that institution is made.

LEAD IN DRINKING-WATER.

IN the concluding chapter of the first edition of Wanklyn and Chapman's *Water-Analysis*, great, and, as some persons thought, unreasonable stress, was laid on the possibility of infinitesimal doses of poisonous metals in drinking-water producing effects on the animal economy. The proportion of lead in drinking-water which may possibly be poisonous is such a proportion as admits of the accumulated water drunk in a lifetime containing a poisonous dose of lead. Less than this is assuredly not poisonous. Such was the doctrine taught by the water-book, and Mr. Bartlett's letter of October 27th to the *Times* reads like a commentary on the text. In the well known case of the family at Claremont, the proportion of lead in the water was found by Hofmann to be one grain per gallon, which is certainly high. Quite recently—within the last month or two—Mr. Wanklyn has found something like this high proportion of lead in water used for drinking purposes in Haslingden in Lancashire; and a notice of it has appeared in some of the London papers. Very small doses of lead, often repeated, may prove injurious; and Mr. Wanklyn informs us that his custom is to test drinking-waters to ascertain whether or not they contain so much as one-twentieth of a grain of lead per gallon, and to condemn them if they do. In a recent case which has came before the public in one of the police-courts, it came out in evidence that there are in the market spurious mineral waters, and that one of these spurious waters is actually poisoned with lead.

HYDROPHOBIA: THE BIRLING RECIPE.

MR. C. L. PRINCE of Crowborough writes to us with reference to this supposed valuable secret remedy:—With reference to the inquiries which have lately been made with respect to the prophylactic to hydrophobia known as the "Birling Cure", I beg to forward the following particulars respecting it. My information was derived from a cutting from an old newspaper (without name or date) which was forwarded to me about two years since in an envelope bearing the Ashford postmark. The communication to the editor was as follows.

"Sir,—W. S. B., writing from Edenbridge in Kent to your journal, on hydrophobia, mentions that a person at Birling in West Kent is possessed of a cure. While endorsing his assertion, I will mention that I am also in possession of the receipt. My ancestors, a hundred years ago, having lived close to the former possessors of it, obtained a copy, and, knowing its worth, have handed it down to the present generation as a valuable heirloom. Last year, it was left to me by a relative; and I published it for the general good in our local and county papers, and also sent a copy of it to Guy's Hospital. The original copy, dated a century back, is now exhibited in the window of the under-written address. It is as follows.

"'*A Receipt to cure the Bite of a Mad Dog, September 29th,* 1766.—A small handful of box; a handful of staggerwort; four red roots of primroses; half a leaf of bearsfoot; sixpennyworth of the powder of white gashen; five thimblesful of jalap; four thimblesful of the powder of steel. Boil the herbs in a pint of new milk ten minutes; let it stand till it is blood-warm; then mix the powders. This quantity is to be taken at three several mornings. Shake the bottle when it is taken, and take it fasting; and neither eat nor drink for the space of three hours.'

"I have just given an order for a fresh supply of herbs, which I keep by me in case of need. Trusting you will give this publicity, believe me to remain yours very truly, ALFRED FIELD.

"High Street, Strood, Kent, May 31.

"P.S. Many persons have been cured by the Birling receipt; but, as I only obtained possession of it last year, I am unable to give any direct reference through myself. I sincerely hope that it may be tried at the first opportunity."

The above medicine corresponds very closely to that which I have advocated, with the exception of the staggerwort (ragwort) being substituted for the toad-flax. I will, however, take this opportunity of mentioning that, in the ancient receipt which I obtained, the staggerwort was given as one of the ingredients. However, upon my requesting to be shown the several herbs, the toad-flax was produced, and not the staggerwort. Furthermore, an affidavit was made, in the presence of a solicitor, that the toad-flax was the plant which had always been used, and not the staggerwort. I have lately obtained information respecting two cases of hydrophobia which were successfully treated by the Groombridge medicine. A man of the name of Simmonds was bitten by a mad dog, and very shortly exhibited unequivocal symptoms of hydrophobia. He was tied hand and foot, and taken to Groombridge, constantly foaming at the mouth, and trying to bite his attendants as he went. He was drenched with the medicine by force, and afterwards took a smaller quantity every four hours. He gradually recovered, and in a fortnight was able to resume his work. He lived thirty years afterwards. The other case was that of Mary Garratt, of Hartfield, in Sussex. She was bitten by a mad dog; and, upon her exhibiting the usual symptoms of hydrophobia, she was taken, by direction of the late Mr. Wallis, surgeon, of that place, to Groombridge. She took the medicine with great difficulty, but eventually recovered, and had a large family. I entertain not the slightest doubt that the Groombridge and Birling medicines are identical as to their remedial effects.

THE CONTAGIOUS DISEASES ACTS.

THE Army Medical Blue-book just published includes, among other important matter, a recapitulation of the important table prepared by Surgeon-General Balfour, F.R.S., for the Secretary at War, and submitted to the House of Commons, showing the operation of the Acts. Surgeon-General Balfour, it will be remembered, was an opponent of the Acts, and commenced the examination of the figures with that feeling; and his subsequent conclusions in favour of them are due to the hard logic of facts investigated with the rigid impartiality for which he is well known. The figures show that, having regard to the constitutional and hereditary forms of the disease, and disregarding for the moment the local and accidental forms which are popularly classed under the same general heading, but which have no constitutional gravity, the Acts brought about, between 1864 and 1872, a reduction of more than one-half—54.4 per 1,000, as compared with 104 per 1,000, of admissions into hospital. The average result of the eight years showed a difference in favour of the Acts of 40.1 per 1,000. Comparing the stations not under the Acts with those which were in 1872 (the last year of the returns), the difference was 68 per 1,000 in favour of the stations under the Acts. On the average of the last five years, the proportion per 1,000 of mean strength constantly in hospital with the constitutional forms of enthetic disease at the stations not under the Acts was rather more than double that of the Acts. It will be remembered that the sanitary results effected in the Navy are not less favourable, and the astonishment at Mr. Stansfeld's reckless impeachment of the sanitary value of the Acts will not thereby be diminished.

HOSPITAL SATURDAY.

Hospital Saturday, which has been dragging its slow length along for a month, has now reached the point of balancing its accounts; and the managers find that the working expenses have been £1100, against a total sum of about four times that amount which has been collected. This state of things not unnaturally gives rise to some discussion; and we are assured that the expenses will not be so heavy another year. Perhaps not; but, if the same methods be resorted to, they must necessarily continue to be very considerable. This has not been a mere workshop collection. It is a misnomer to call it such. It has been an appeal to all grades of the population, made through the ordinary channels of advertisements, theatrical performances, collecting-boxes, and the like. A subscription obtained in this way must always be charged with heavy costs. Meanwhile, it is proposed to defray the working expenses of the present year by a special fund. Four thousand pounds having been collected by special efforts; another special effort is to be made to raise £1100 to pay the expenses of the first collection. Was there ever such a miscarriage of philanthropy? Was there ever such a waste of well-meant zeal for want of proper direction? If all this energy had been thrown into the Hospital Sunday Fund, or, better still, if it had been used to promote some comprehensive scheme of provident medical institutions, the result would have been very different, and far more beneficial to the working classes.

WANT OF A MORTUARY.

Dr. Dudfield, Medical Officer of Health for Kensington, directs attention to the great want which exists in that parish for a public mortuary. He instances one case where a young woman, a stranger to London, had died without medical attendance. The body remained in one room for three days, whilst in the adjoining rooms there were ten or eleven persons living; the whole of the apartments being situated over a stable.

THE DURATION OF INFECTION.

We are requested by the Duration of Infection Committee of the Lancashire and Cheshire Branch to ask those members who received schedules to return them with what cases they have observed up to the present time, as they wish to collect the facts for a short preliminary report. We may also state that schedules can always be had on application to the Honorary Secretary, Dr. J. Haddon of Manchester; and we beg to urge upon the members co-operation in this important and interesting inquiry.

THE DOWNING PROFESSORSHIP OF MEDICINE AT CAMBRIDGE.

For this professorship, vacant by the death of Dr. Fisher, we hear that there are three candidates: Dr. Bradbury, Dr. P. W. Latham, and Dr. J. F. Payne. Dr. Bradbury and Dr. Latham are both Physicians to Addenbrooke's Hospital, and have made valuable contributions to medical science. Dr. Bradbury at present occupies the post of Linacre Lecturer on Medicine; and Dr. Latham has acted for some time as Deputy to the late Downing Professor. Dr. Payne is a Fellow of Magdalene College, Oxford, and Assistant-Physician to St. Thomas's Hospital. Dr. Payne proposes, if elected, to give his whole time to the duties of the office.

LUNACY LAW REFORM ASSOCIATION.

The Council of the above Society have just issued their first report, in which they make a series of charges all round, of brutal cruelty, political influence, and criminal negligence on the part of medical men in signing lunacy certificates; whilst the inspectors are said to be occupied mainly in travelling, surveying buildings, inspecting books, etc.; so that the justice of a patient's detention generally escapes their observation. These are "prave 'ords"; and grave charges are made in the report, notwithstanding that Dr. Robertson, who has had twenty years' experience in lunacy cases, states that he never knew a patient confined who did not require strong measures; and Dr. Gilchrist, who has known three or four thousand cases of lunacy, never yet knew of a sane person being detained in an asylum. The report is issued in the face of the letter of Mr. Liddell, to the effect "that the charge of corrupt practices made by the Lunacy Law Reform Association is a very grave one". However, the Council of the Society have got a hobby-horse, and it will not be their fault if they do not ride the poor animal to death.

MEDICAL MICROSCOPICAL SOCIETY.

The above Society held its first meeting of the session at the Royal Westminster Ophthalmic Hospital, on Friday, the 16th instant; and the numbers present sufficiently testified to the flourishing state of the Society. In addition to the usual exhibition of specimens of medical interest by the members themselves, some of our well known microscope-manufacturers contributed to the general entertainment of the evening by producing examples of their more recently constructed and improved instruments. A paper on a New Method of Micrometry, communicated by Mr. John Gorham of Tonbridge, was read by the President.

LIEBIG'S LIQUID EXTRACT OF MEAT.

Mr. John Knight of Bradford was charged at the Borough Hall of that town, on the 9th instant, with selling an article described as Liebig's Liquid Extract of Meat. From the printed descriptions of this article circulated by the sellers, it was said to be composed chiefly of pure extract of beef obtained from the best parts of the animal, Madeira wine, a small quantity of fine old brandy, and quinine. This was followed by a statement professing to come from a Dr. Sewell, which said that he had "every reason to be satisfied with it". He had found it "particularly useful in the advanced stage of consumption, and in organic disease of the liver when the stomach had been very irritable. In the cases of pregnant women it had been retained, while every other article of diet had been rejected". He could "recommend it as convenient, palatable, and easy of digestion". Mr. F. M. Rimmington, public analyst, said that he had analysed the liquid extract, and he found in it very little beef indeed. He also found a wine which he called Spanish wine, or Tarragona wine, and a little sugar. He found in it fifteen per cent. of alcohol. It was said that wines were sometimes what was called "doctored". Besides the sugar, there was in the article some flavouring of pimento or allspice, making it slightly aromatic. The reason why he said that the extract was injurious to health was that it was improperly recommended—recommended for improper parties. He thought it was objectionable to have medical certificates making false representations about it. It was remarked that Dr. Sewell had taken his degrees from an university at Quebec. The use of the article would be a system of secret dram-drinking. In determining or not whether the article was injurious to health, he took into account the purpose for which it was represented and sold. The alcohol was generally what was understood as spirits of wine. Mr. Harris Butterfield, the medical officer of health, said he had heard what were the constituents of the compound, and in his opinion it was injurious to health. It would be highly injurious to give a pregnant woman such an article. It would be giving her what purported to be animal food, but which was alcohol, and the medical man would suppose that she was taking animal food. For the defence, it was stated that the article in question contained some of the ingredients stated, and had something in it to make it a tonic, which it was represented to be. That was not adulteration; it was simply making a medicine mixture, and they were not charged with not making that mixture as it ought to have been made. Mr. Knight was quite an innocent party in the matter. He had been dealing in the article, which was well known and taken by a great many people. This case was not one within the meaning of the Act of Parliament. If the magistrates convicted in this case, every medical man and every druggist who sold a certain article which was not as stated would be liable to be brought up for adulteration and liable to be fined. He would ask, with regard to medicines, particularly quack medicines and patent medicines, whether the justices were to be the parties to say whether they were adulterated or not? It was not for the justices to fine people because they did not make the articles so good as they represented or ought. After consultation, the bench decided to fine Mr. Knight £2 and costs, £2 10s. Notice of appeal was given, and defendant was bound over to prosecute this appeal at the Quarter Sessions.

ANTIQUATED TEAS.

It was stated at a recent meeting of the City Commissioners of Sewers that there were millions of pounds of spurious tea in the wharves and warehouses of the city of London, some of which had been accumulating for thirty or forty years. The attention of the sanitary authority was directed to the fact. We shall be glad to see that they have taken some steps to prevent this rubbish from being distributed amongst the tea-drinkers of the country.

WHOLESOME HOUSES.

The periodical invasion of complaints in the "daily press" regarding sewer-gases and their effects, has commenced this year somewhat earlier than usual, and with much greater force. The knowledge of sanitary science is growing in favour with the public. Men are no longer satisfied with sending for the doctor when they are ill, but they also begin more generally to inquire the "reason why"; and, if we may judge by the tenor of the letters which have appeared in the public press, the knowledge is taking a much more practical form than it used to do. The letter of "M.D." in the *Times*, by recalling people's attention to the faults of house-construction in connection with sewer-ventilation, will do good service, because it sums up in a concise form most of the points which require attention. Three years ago, when the Prince of Wales's illness brought the matter home to every one, similar suggestions were made, but the effect has been transitory, and the lessons in a great measure forgotten. When evils of a corresponding character arise anywhere now, the lessons then learnt have been remembered, and ten persons are now able to propose the proper remedy where one only could suggest it then. We augur well from this: it indicates a growing desire to know more about the prevention of disease. The numerous panaceas which are put forth by charlatans, as well as by the orthodox professors of the preventive line of practice, will help to make us more fully acquainted with the best way of dealing with the subject. One class of writers denounce the water-carriage of excreta altogether, and would consign sewers to destruction—would banish them from the domain of the architect altogether. Another class declares that the ventilation of sewers is an architect's question, and that proper ventilation entirely prevents the formation of gases in sewers; and a third would keep the excreta of human beings out of them, proposing to convey it away upon a kind of pop-gun principle, or else deodorising it by the application of earth, leaving to sewers the duty of conveying away slops and washings, and all other liquid refuse except excreta. Dr. Fergus of Glasgow has clearly shown that ventilation alone is insufficient. Something like the Universal Disinfector Company's apparatus, fitted to every closet, is needed to prevent sewer-gas from penetrating into the house. It appears to us that, whatever may be the condition of towns in the next century, sewers are absolutely necessary at present. Whether Moule's earth-closets, Liernur's system, or water-closets are used, we must deal with things as they are. We must have sewers; we must also have them ventilated. We are told how this can be done; and it is high time for some legislative action to be enacted, by means of which the local authority may be able to deal with it compulsorily. There ought to be no difficulty in the matter, as far as new houses are concerned. No house ought to be occupied for the first time without the local authority having certified that every thing has been properly done as far as the sanitary arrangements of the house are concerned. It would also be an advantage if a person before taking a house could have the power of obtaining a survey by the sanitary authority of the district, and if he could demand the perfection of the sanitary arrangements of the house before being called upon to pay any rent. It has been suggested that there would be no hardship in enacting that no builder should deliver over a house to its owner, and no landlord should let a house to a tenant, until it has been surveyed by a sanitary officer, and reported safe as regards the ventilation of its sewers. We are quite ready to endorse that opinion. There may be some difficulty in getting the details proposed carried into effect; but if we once insure the healthiness of a given house under the seal of the local authority, a good step will be taken towards preventing a mass of disease which now seizes upon the innocent and unwary. It would also bring a cessation of the epidemic of letter-writing regarding sewer-gas, which periodically seizes upon those who feel themselves to be victims to a wrong for which at present the English law does not provide an effectual remedy, whilst it would throw the responsibility upon the shoulders of those who ought to bear it—viz., the local authority.

SPREADING CONTAGION.

The sanitary authorities of the Chesterfield Union have lately prosecuted a man named John Sharatt for allowing his children to attend school at a time when they were suffering from scarlet fever. The offence having been fully proved, a nominal fine only was asked and inflicted. These proceedings were instituted in consequence of the spread of fever in the district. It was found that contagious diseases were spread by schools more than by any other means. The sanitary authority have given notice that in future they intended to prosecute all such offenders. Writing on the same subject, the medical officer of health for Liverpool suggests that all public schools should be regularly visited by medical men, whose duty would be to afford protection to healthy pupils by sending out from amongst them all children (and their brothers and sisters) in whom infectious illness might show itself, and also to visit children who are absent from school in consequence of illness, to ascertain the nature of the affection, and report all cases of infection to the respective medical officer of health. There would be a difficulty in carrying out this suggestion in private schools, as the authorities have no compulsory power vested in them for that purpose. It would be advisable, however, to acquaint negligent parents with the fact that they render themselves liable to a penalty of £5 by allowing infectious children to go at large. Thus argument would probably "touch them nearly" when all other means of persuasion had failed.

FATAL ERRORS IN DISPENSING.

We have so often commented on the perversity of the Pharmaceutical Society in eluding its plain obligations to frame a suitable series of regulations to prevent "accidental poisoning" from errors of dispensers and nurses in dealing with deadly poisons, that we prefer, in the following instance, to quote the sensible comment of the *Chemist and Druggist*, a pharmaceutical journal which, if we mistake not, vigorously opposed the promulgation of any regulations when the subject was under formal debate.

"By the accidental substitution of acetate of morphia for pepsine in a draught mixed by a chemist's assistant at Dewsbury, a life has been sacrificed. The event demands the serious consideration of the whole trade, and it is not unlikely to command thoughtful attention in other quarters also. The sharp controversy of 1871, on the submission to a set of compulsory Poisons Regulations, is no doubt still in the memory of all chemists. It ended by the issue of the suggested 'regulations' in the form of 'recommendations'. We are quite unable to state to what extent these recommendations were adopted by those chemists who had not previously made special provision against poisoning accidents. But now, at any rate, a case has occurred which has found out the weak spot; and we confess we can see no sufficient reply to Mr. Simon if he should claim that the life lately lost might have been spared if the Bill he suggested had been allowed to pass into law, and had been enforced. From the reports of the case which we have seen, it would appear that, though on a different shelf, the pepsine and morphia bottles in Mr. Parrington's shop were of similar size and style, and both equally at hand. The mistake was extraordinary enough, no doubt; but mistakes always are extraordinary in some respect. The business of a chemist compels him to deal in these deadly substances; but his own self-interest, not to speak of his duty to society, ought to speak to him of his responsibility, and induce him to take every possible precaution against accident. If these lines should be read by any whose poison-stores are not in such a state as could be approved of by the most minute inspection of a competent authority, we urge, with this recent death as a terrible support to our words, their instant and thorough arrangement, as the most important and pressing duty to be discharged."

A PLEASING OCCASION.

THE meeting of the East Surrey District of the South-Eastern Branch took place at Reigate on October 22nd, and was marked by some pleasing incidents. After a very successful ordinary meeting for the reading of papers, at which a valuable communication was made by Dr. Grabham of Redhill Asylum, on the Origin, Varieties, and Termination of Idiocy, the members sat down to dinner, under the presidency of Dr. Holman of Reigate. A large number of members had assembled, the special object of the day being to assist at a presentation to Dr. Lanchester, for long the energetic Secretary of the District, of a testimonial from the members, expressive of their thanks for his good work, and their appreciation of his courteous, friendly, and high-minded conduct in all his relations to his professional brethren. The meeting was graced by the presence of Sir George Burrows, Mr. Curling, and Mr. Heckstall Smith; and Mr. Ernest Hart, Dr. Theodore Williams, and others, were also present by invitation, besides the leading members of the Branch. The presentation was made by Sir George Burrows, as a past President of the Association, and as a teacher of Dr. Lanchester; and Sir George Burrows was never heard to greater advantage than in performing this graceful office of friendship, surrounded by medical men among whom he claimed many pupils, lending the authority of his office and the just weight of his experience and career to enforce the value of the cultivation of professional union, and the maintenance of the high qualities of professional zeal, courtesy, and public spirit, which received their recognition in the event of the evening. It was noteworthy, that the movement originated among Dr. Lanchester's professional neighbours—otherwise called professional rivals. The good influence of the active working of the local Branches of the Association, in knitting neighbours and rivals together in good-will and professional unity, was very happily exemplified by the proceedings of the evening.

THE ANSTIE MEMORIAL FUND.

THE Executive Committee of this Fund have issued a circular in reference to the fund, in which they state that Dr. Anstie has left a widow and three young children (a son and two daughters). He had not failed, by insurances and other proper and prudent means, to make provision for the actual maintenance of his family; but time in which to do more than this was not afforded him. The life of a London physician, up to his fortieth year, is usually one of expenditure rather than of gain; and Dr. Anstie's estate, when invested as a source of income, will not procure for his children any approach to the educational and other advantages which they would have enjoyed if he had been spared to them. Under these circumstances, and in accordance with a wish very generally expressed, the Executive Committee have decided to recommend that a small portion of the sum subscribed, say about twenty pounds, shall be expended in the erection of a tablet or other memorial in some suitable place; and that the residue shall be deposited with trustees, to be by them applied to the education of the children, or to their advancement in life, in such a manner as circumstances may render expedient, and in accordance, as nearly as possible, with the wishes which their lamented father would have entertained for them. A proposition to this effect has been submitted to Mrs. Anstie, and has received her approval and acceptance.

Dr. MORGAN, C.B., Deputy Inspector-General of Hospitals and Fleets, is under orders to embark for China to relieve Dr. Loney on November 5th. Dr. Loney will not, therefore, be in England before February.

SCOTLAND.

ROYAL INFIRMARY, GLASGOW.

WE understand it is intended by the managers to fill up the vacancies in the dispensary caused by the recent promotion to the house of several of the dispensary physicians and surgeons on the 2nd of November next. The vacancies are one physician, one surgeon, one extra physician, and one extra surgeon.

OPENING OF THE MEDICAL SESSION IN GLASGOW UNIVERSITY.

THE session was opened on the 27th instant by an address from Dr. P. A. Simpson, Professor of Medical Jurisprudence. The address contained the usual advices to students as to their course of study and their conduct both in the classes and outside. The professor went a little out of his way to criticise the lady medical students, which he did in rather severe terms. The number of students in attendance seemed to be larger than is usual at the introductories.

GLASGOW WESTERN INFIRMARY: ADOPTION OF A CONSTITUTION.

THE subscribers to this institution met on the 26th instant, chiefly to consider a draft constitution which had been drawn up. By this constitution, it is arranged that the hospital will be managed very much like the Royal Infirmary, by a body of twenty-seven directors, chosen by the following bodies: two by the Town Council, the Senate of the University, the University Court, the Merchants' House, the Trades' House, the Faculty of Physicians and Surgeons, the Faculty of Procurators; one by the Commissioners of Police of the burghs of Partick, Govan, Hillhead, and Maryhill; and nine to be elected by the general body of subscribers. A minute of the general committee was read, from which it appeared that, in the meantime, it was intended that patients should be admitted to the hospital without any line or recommendation from a subscriber; that, in fact, the hospital should be open to all cases considered suitable by the medical officers. This announcement caused considerable discussion. It was urged that the very large amount of support which the Royal Infirmary derives from the working classes (and they subscribe about half of the sum required) is due to the fact that the workmen, by subscribing, consider that they have a certain vested interest in the hospital, and when struck down by illness they have only to present the subscribers' line and take up the bed which has been already paid for by them; and thus they preserve their feeling of independence. Whether the advantages of this system are sufficient to counterbalance its obvious disadvantages in other respects may be a matter of doubt. The recommendation given at the meeting, that the managers of the two hospitals should meet to discuss the matter, seems a very good one.

IRELAND.

SCARLATINA is spreading to a considerable extent in Belfast, thirty-one deaths having been registered last week, and twenty-eight the week preceding, from this disease.

LAST week, when referring to the introductory addresses, we stated that the opening address at St. Vincent's Hospital would be given by Dr. Mapother. It will be delivered by Mr. O'Leary, M.P., who has chosen for his subject the "Irish Public Health Acts".

UNIVERSITY OF DUBLIN.

AT a meeting of the Provost and Senior Fellows of Trinity College, held on October 17th, it was resolved:—"1. That the senior lecturer, in conjunction with the medical registrar, be directed to recommend examiners to assist the professors in the medical school at the examinations in botany, physics, chemistry, and materia medica. 2. That the medical registrar be directed to give every facility to the visitors of the General Medical Council for the inspection of examination papers and of the answers thereto, but not to resign the custody of these papers. 3. That a three months' course of practical instruction in animal histology be added to the curriculum for the degree of M.B., under the superintendence of the King's Professor of the Institutes of Medicine. And that the bursar of Trinity College be authorised to expend a sum not exceeding £110 in the purchase of instruments for that purpose."

THE PROFESSORSHIP OF CHEMISTRY IN THE DUBLIN UNIVERSITY MEDICAL SCHOOL.

PROFESSOR APJOHN has resigned this important office. Dr. Apjohn will continue to discharge the duties of the professorship during the present session, and then this distinguished veteran will retire from active medical teaching after a service of half a century. Dr. Apjohn will, we understand, still continue to hold the professorship of mineralogy in the University, and the lectureship on chemistry in the Engineering School of Trinity College, so that the University will not at once part company with their distinguished professor. The chair now virtually vacant will have an endowment from the University of £500 *per annum*, together with share of the students' fees. Several candidates are spoken of as likely for the vacant chair, but the favourite seems to be Dr. Reynolds, the present professor in the College of Surgeons and Royal Dublin Society.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

AT the annual stated meeting of the College, held on Monday, October 19th, the following officers were elected for the ensuing year:—*President:* Dr. James F. Duncan. *Censors:* Dr. Henry Kennedy (Vice-President), Dr. Lombe Atthill, Dr. Arthur W. Foot, Dr. Walter G. Smith. *Registrar:* Dr. J. Magee Finny. *Treasurer:* Dr. Aquilla Smith. *Examiners in Midwifery:* Dr. Edward B. Sinclair, Dr. F. Churchill, jun. *Professor of Medical Jurisprudence:* Dr. R. Travers. *Representative on the General Medical Council:* Dr. A. Smith.

DUBLIN HOSPITAL SUNDAY.

THE Committee of the Meath Hospital, among some other institutions, have determined to disconnect themselves from this movement, and not to accept any portion of the funds collected. The Hospital for Incurables also, at a late meeting, have adopted a similar procedure. The Council of the Dublin Hospital Sunday have not yet made public the names of the various hospitals which are to receive a moiety of the collection to be held in 125 churches on November 15th; and a good deal of discussion has arisen from this unaccountable proceeding. It is rumoured that various hospitals in Dublin, whose management is practically altogether in the hands of Roman Catholics, will receive an equal allowance with other institutions; and, as Cardinal Cullen has refused to permit any chapel in Dublin joining the movement, it naturally, if true, has caused a considerable amount of opposition to an undertaking otherwise unobjectionable.

CARLOW UNION.

THE medical officers of this Union have memorialised the Local Government Board, stating that their salaries as sanitary officers have been fixed by the Board of Guardians at the small sum of £10 each *per annum;* and observing that, if they are expected to perform their new duties as educated gentlemen would desire to do, a fair and equitable salary should be assigned to them; and requesting the Board to rectify the decision of the Carlow Board of Guardians.

ROYAL COLLEGE OF SURGEONS' SCHOOL OF MEDICINE.

DR. REYNOLDS delivered the opening address on Monday last to a crowded audience. He called attention to many topics of public interest, and specially to the probable effects of the Public Health Act on the status and education of the medical profession in Ireland. We are afraid his advice as to patience in observing the working of the Act, although no doubt very nice, will not be followed by those who are smarting under the injustice of insultingly small salaries for hard work. Dr. Reynolds performed his difficult task with ability and credit to himself, and satisfaction to his audience.

ASSOCIATION INTELLIGENCE.

NOTICE OF MEETING.

THE First General Meeting of the British Medical Association, incorporated under the Companies' Acts 1862-1867, will be held at the Queen's Hotel, London and North Western Railway Station, Birmingham, on Wednesday, the 4th day of November next, at five o'clock in the afternoon.

Dated this 22nd day of October, 1874.

FRANCIS FOWKE,
General Secretary.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Wednesday, the 4th day of November next, at a quarter past 3 o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, October 8th, 1874.

YORKSHIRE BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Royal Hotel, Scarborough, on Wednesday, October 21st.

Communications.—The following communications were made:

1. Dr. EASTWOOD: On the Early Symptoms of General Paralysis of the Insane and the importance of recognising them.

2. Mr. R. B. COOKE introduced the subject of Hydrophobia for discussion, in which several members took part; and Dr. Eddison gave an account of several cases he had seen in the Leeds Infirmary.

3. Mr. HUSBAND related Two Cases of Aneurism, having special reference to the treatment of that disease by digital pressure.

4. Mr. TEALE read a paper on several interesting Surgical Cases.

Dinner.—After the meeting, about twenty members dined together at the Hotel.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING was held on October 22nd, at the White Hart Hotel, Reigate. Present: C. HOLMAN, M.D., in the chair, and twenty-two members and twelve visitors.

Next Meeting.—It was agreed that the next meeting should be held at Croydon on December 10th; Dr. Lanchester in the chair.

Papers, etc.—Dr. P. H. PYE-SMITH read some cases of Abdominal Tumour. The first case was in a woman of movable kidney on the right side. He described the affection as more common in women than in men. The second case, in a woman, was a tumour of the hypogastrium, which proved to be distended bladder from retroversion of the womb and pressure on the neck of the bladder. The third case, also in a woman, was one of tumour of the same position, with fluctuation, proved to be unilocular ovarian cyst. The fourth case, in a child aged 2, was one of tumour in the left lumbar region, with healthy urine; on puncture with a trocar, the tumour showed elastic soft sarcomatous tissue, and was supposed to be sarcomatous kidney with cyst. On *post mortem* examination, the disease was found to be in the glands behind the kidney, with the kidney flattened out over the mass. In the fifth case, a man, aged 40, suffered from distended stomach, without tumour or evidence of pyloric obstruction. The diagnosis was chronic gastritis. The patient died in two hours, after sudden faintness; and, on *post mortem* examination, a large carcinomatous deposit was found in the glands at the back of the abdomen and thorax. The man had a testicle removed two years before. The sixth case was one of malignant disease, in a woman, after removal of the breast. The first appearance of tumour in the breast was in March, 1873; she died in February, 1874. The seventh case was one of cancer of the liver, secondary. There was no evidence of disease of the stomach during life. On *post mortem* examination, it was found to be melanotic cancer of the liver secondary to cancer of the rectum. The eighth case was one of enlarged liver, due to impacted gall-stone. There were no symptoms till a week before admission, then sickness, pain, and jaundice. The ninth case was that of a boy, aged 16, having enlarged liver, with nodules and hepatic dropsy. There was no history of drinking. His urine was healthy. He had convulsions, and died comatose. On *post mortem* examination, cirrhosis of the liver was found, the organ weighing double the average weight; the increase of size was due to fat.—A discussion ensued, in which Mr.

Marshall, Mr. Howard Marsh, Dr. Galton, and Dr. Wiltshire took part.

2. Dr. GRABHAM read Remarks on the Origin, Varieties, and Termination of Idiocy.—Mr. HEARNDEN inquired how often in the cases of consanguinity of parents, there were Jewish parents.—Dr. GRABHAM stated that he knew of only three cases of Jewish parentage in the asylum. He quite agreed that many cases were referable to prolonged parturition.—In reply to Dr. Pye-Smith, Dr. GRABHAM stated that in one case of cretinism, he noticed, on *post mortem* examination, a peculiar flattening of the base of the skull.—Dr. WITHERS MOORE referred to the importance of the question as to the Jewish persuasion, in relation to the absence of tubercle and syphilis and the frequent intermarriages among Jews.—Dr. GRABHAM recalled only 6 per cent. of parental consanguinity, more than half of tuberculosis. Dr. LANCHESTER had seen at the Victoria Chest Hospital frequent cases of tubercle among Jews.—Mr. HECKSTALL SMITH believed that the fear of consanguineous marriages was much exaggerated.—It was proposed by Mr. HECKSTALL SMITH, and seconded by Dr. HALL—"That the paper of Dr. Grabham be offered to the JOURNAL for publication."

Dinner: Testimonial to Dr. Lanchester.—Thirty-two members and visitors sat down to dinner. Among the visitors were Sir George Burrows, Mr. Curling, Rev. Dr. West, and Dr. C. T. Williams. The testimonial to Dr. Lanchester, consisting of a marble and bronze clock with bronze candelabra, was presented in graceful terms by Sir George Burrows, and appropriately acknowledged.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

The Medical School.—Lady Medical Students.—Royal College of Surgeons.—Health of Edinburgh.—The Edinburgh Veterinary College.—The University.—Royal Medical Society.

EDINBURGH has now filled again, and active preparations are being made for the winter's campaign of lecturing at the medical schools. There are an unusually large number of lecturers in the extra-academical school in the field this year; surgery being represented by five as before, pathology by three, of whom Dr. Coghill appears for the first time. Dr. McKendrick adds a third to the two courses of physiology; while Dr. Smart opens out new ground by a special course on hygiene and public health. The increasing number of lecturers, as well as the annually increasing number of students, serves to show the healthy and flourishing condition of the medical school.

Whether the body of ladies who were studying here last winter and summer are to be here again for this session has not transpired, but probably the greater conveniences offered in London will attract them thither.

At a meeting of the Royal College of Surgeons held last week, Dr. Simson was re-elected president for the coming year, and Dr. Omond was re-elected secretary. The council and examiners were also elected.

The general health of the town has been good, the weekly mortality ranging from 20 to 22 per 1000 for some weeks past. There have, however, been a good many cases of typhus from the Cowgate and High Street. They are sent into the Infirmary, or otherwise isolated, as soon as they are discovered; and thus the disease is prevented from becoming general. We have heard of several cases of the introduction of scarlet fever from the watering-places on the east coast, where there was a severe epidemic of an unfavourable type during the summer months; but, as most of these were in families of the better classes, the disease has not spread to any extent.

The winter session of the Veterinary College was inaugurated on Wednesday week, by a meeting under the presidency of the Lord Provost, who expressed a confident hope that the College had now emerged from the troubles which for long had been keeping it down, and under the present management would go on and prosper. The new Principal, Mr. Whalley, then delivered an inaugural address, pointing out the general aim and scope of veterinary medicine and surgery, and giving the students some information as to the work which lay before them, and some advice as to their conduct in connection with the College.

The University will open for the session on Monday next with an address by the Principal, Sir Alexander Grant, to be followed on Tuesday by the general commencement of lectures.

On the opening night of the Royal Medical Society, Friday, November 6th, Professor Maclagan has kindly consented to deliver an address to the members of the Society and all students who choose to attend.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 13TH, 1874.

C. J. B. WILLIAMS, M.D., F.R.S., President, in the Chair.

ON THE PATHOLOGY AND TREATMENT OF CHOLERA BY THE SUBCUTANEOUS INJECTION OF CHLORAL HYDRATE. BY AUGUSTUS R. HALL, SURGEON, R.A.

(Communicated by Dr. GEORGE JOHNSON.)

Mr. HALL said that the treatment of the collapse of cholera by the hypodermic injection of chloral hydrate, had been, so far, comparatively successful. The Government of India had published reports on the subject in their *Gazette* of February 14th, 1874. The personal experience of the writer showed that the diarrhœa was perfectly painless, and the vomiting unattended with nausea. The pulse was at first hard, and then small, before ceasing to be felt. Meanwhile, the heart contracted forcibly, showing there was no tendency to syncope. The cramps in the voluntary muscles caused the real pain in cholera. The voice was squeaky before it became sepulchral. There was suppression of urine. As a rule, there was no loss of consciousness. Great thirst was always present. The comparative rapidity with which persons who survived an attack generally regained their health, tended to prove that no very serious permanent changes had taken place, either in the blood or in the intestinal canal. When water and oxygen could get to the blood, it performed its functions properly, and the epithelium was not apparently thrown off from the intestines to any great extent during life. The symptoms of collapse could be explained, chiefly by the experiments of Brown-Séquard, by great irritation of the sympathetic nervous system. The morbid influence of cholera exercised, probably, a stimulating action on the vaso-motor centres, producing increased heart action, contraction of the muscular walls of all the arteries, and, at first, augmented blood-pressure. Dr. Parkes had shown the frequency of copious micturition of limpid urine in the early stage. This might be intimately related, according to Traube, to high arterial pressure. The heart contracted forcibly, but could not dilate normally, its muscular walls being spasmodically affected. The excessive activity of the vaso-motor centres was so great that the inhibitory or dilating action of the vagus on the heart was not allowed to control it. The left heart got very little blood from the lungs on account of the contracted pulmonary arterioles not letting it pass, so it could only send that little into the arteries; hence the small pulse in the latter stage. The right heart could not pump the blood, forced into it by the gorged vena cava, into the lungs, and was therefore full, and found so after death. The gorged systemic veins apparently caused the blue colour of the face and skin. The peculiar choleraic voice was not due to want of air passing into and out of the lungs. It was presumed to be caused by the abnormal condition of the nerves which supply the larynx. The cramps might be caused by the cutting off of the blood-supply to portions of the muscles by the contracted state of their arterioles. Dr. C. B. Radcliffe had stated that contraction of muscle is a temporary death. The vomiting was apparently caused by the irritated state of the nerves supplying the stomach. The evacuations from the bowels might be the result of transudation from the distended nervous radicles of the portal system. The vomiting and purging seemed to be of secondary importance. It was the vaso-motor centres that produced asphyxia by their action on the heart and lungs, and to these our whole attention should be directed. The urinary bladder was generally contracted "to the size of a walnut". Abortions frequently occurred in pregnant women, the fœtus being often expelled alive, indicating spasmodic contraction of the uterus as the cause. The perfect consciousness of the patient during the attack made it probable that there was no tendency to real syncope. It was presumed that there was spasm of all the arteries of the body, and that the cause of death was asphyxia. To overcome this, pure sedatives, which soothed the irritated nerve-centres, and so put a stop to spasms, were recommended. It was of no good to give medicines by the mouth, as they were generally rejected at once; they must, therefore, be introduced subcutaneously. Practically, the best agent was chloral hydrate, which was a powerful sedative without exerting any primary stimulating action. The strength of the solution should be one part of chloral in ten of water. Ten grains in one hundred minims of water would generally suffice, put under the skin of the arms or legs in four or five different places. If the solution were stronger than this, it would probably cause ulceration. The patient generally craved for cold water, and this might be given in any quantity; but no opium or stimulants was to be given during collapse. If reaction did not set in within half an hour, the injections might be repeated. The secondary fever was probably a condition allied to heat-apoplexy, in which there was relaxation of the arterial walls, the result of exhaustion. In this state, experience had shown that the administration of quinine, with stimulants and tonics, was the best treatment.

The PRESIDENT thought the hypodermic plan good in such a case, but the solution of chloral hydrate would require to be well diluted.—Dr. FOTHERGILL thought the symptoms went to show that the malady was connected with the vaso-motor system, producing contraction of the arteries and accumulation of the blood in the veins. The treatment suggested was founded on physiological notions.—Dr. SANKEY referred to Mr. Durham's researches with regard to the condition of the brain in sleep. As chloral hydrate acted as a narcotic, it probably induced contraction; but here it was given for an opposite condition.—Dr. ALTHAUS said this theory of cholera was not new; it had been advanced by Eulenburg. Neither was it Brown-Séquard who discovered the functions of the sympathetic, but Claude Bernard. The subcutaneous plan of giving medicine was the only one available in cholera. Eulenburg had tried morphia in this way with fairly good results, even though opium had a bad name in cholera. Its exhibition in this way was always followed by elevation of the surface-temperature, even in collapse.—Dr. LEARED asked if chloroform suited as well as chloral hydrate?—Mr. HOLMES did not desire to speak to the question, but rather on the nature of the paper. It rested on certain cases, but it was a pity no tabular statement of these accompanied it, especially as to the total number of cases treated, the period of the epidemic, the leading symptoms, and the results. The author had only dealt with a part of the question.—Dr. FAYRER had seen much cholera, and he had also seen something of Dr. Hall's work. He considered this paper to be one of the best he had read or heard on the subject, and he believed the author had pointed to the true theory of the causation of cholera. The description was exceedingly accurate. Whether hydrate of chloral was the only true remedy he could not say, nor could he say that this theory was the right one; but, at all events, he thought they were both in the right direction.—Surgeon-Major WRIGHT thought the hypodermic method the only plan in such cases. He had himself used it, but not for chloral.—Mr. W. SEDGWICK had suggested the hypodermic method, and probably chloral would prove a good remedy to use, but that remained to be seen. A contracted bladder was to be found in other maladies besides cholera, so also of suppression of urine with no uræmia. He thought the condition due to paralysis of the abdominal sympathetic.—Dr. LAUDER BRUNTON said contraction of the systemic and pulmonary arteries would account for many of the symptoms, including the feeling of asphyxia, but not all. There was probably also paralysis of certain parts of the nervous system. The flow from the alimentary canal could not be accounted for on the theory of contraction; that required complete paralysis of all the nerves going to the alimentary canal. Collapse from a blow gave rise to many of the symptoms of choleraic collapse, and in this there was vascular or venous dilatation. For contraction of the arteries the injection of chloral would do good, but for the dilated abdominal veins something more would be required. Probably digitalis would effect the end in view.—Mr. CLOVER thought it would be better to give chloroform at once if it could be given regularly and safely, and described an apparatus recently invented with this view.—Dr. THIN, who had seen a good deal of cholera in China, thought the value of the paper depended mainly on the number of recoveries. It was important to know the stage of the epidemic, since at the beginning almost all die, and towards the end most survive.—Mr. HALL said the cases occurred at the beginning of the epidemic, and he read an account of a very severe case so treated which had recovered. He only gave cold water to drink; no stimulants or opium.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 23RD, 1874.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

Brain-disease simulated by Overstrain of the Convergence Muscles of the Eyes.—Mr. BRUDENELL CARTER described the case. The patient was a young gentleman, who was interrupted, whilst reading for honours at Oxford, by double vision and vertigo, followed, if the effort to read were continued or soon resumed, by sickness, palpitation, and intense headache. These symptoms were attributed to some obscure affection of the brain, and the patient was directed to leave the university without taking a degree. He remained for some time at home, under medical treatment, without improvement, and, on coming to London for further advice, was told to take a voyage to Australia and back, in order to rest his brain. He did so, but returned no better, and was then advised not to enter into business, and to abandon his engagement to marry. Mr. Carter was consulted about the case, in order that he might say whether the ophthalmoscope revealed anything abnormal in the cerebral circulation. He found the patient to be very short-sighted, and that he had never worn spectacles. In reading, he held his book seven inches from his eyes; and Mr. Carter ascribed the symptoms to inability to maintain this degree of convergence for many hours. He ordered spectacles to be worn constantly, and reading to be practised at a distance of eighteen inches. In three weeks, the patient returned cured, with his wedding-day fixed and his arrangements for entering into business completed. In his concluding remarks, Mr. Carter said that the case, though exceptional, was exceptional only in degree, and that many patients suffered from headache and other symptoms due only to impaired harmony of the ocular muscles, or to inordinate exertion of some of them. He urged that, in every case of obscure head-affection, the state of refraction, of vision, and of the muscles, should be carefully investigated; at all events, before a patient was sent to Australia, or advised to abandon his position and duties in life.

Dr. HUGHLINGS JACKSON considered Mr. Carter's paper to be as interesting to physicians as to ophthalmic surgeons. He (Dr. Jackson) referred to a case in which hypermetropia, which was an indirect cause of nervous troubles, had been, by several eminent ophthalmic surgeons and by himself, misinterpreted. It disappeared when appropriate glasses were worn. Since then, he had always considered the state of the refraction of the eyes, as well as the state of the fundus, in patients who had what might be called minor cerebral symptoms. He referred to another case he had seen with Mr. Carter, in which severe headache seemed to be fairly attributable to hypermetropia and astigmatism. He considered that cases of ocular palsy were, for the study of the nature of vertigo, the simplest of all cases. It was clear, from these cases, that vertigo was a motor symptom. It was not due to double vision, as commonly supposed, since it occurred on use of the paralysed eyeball only—that is to say, under conditions in which double vision was impossible. Yet, as a matter of fact, vertigo, in physicians' practice at least, was not commonly met with in cases of ocular palsy. This was owing to the fact that, in the case of the sixth nerve, the patient, so to speak, dodged the paralysis by holding his head stiffly inclined; and, in the case of the third nerve, to the fact that the paralysed eyeball was covered by the drooping lid. In the latter case, the patient did not reel nor feel giddy, but, if he closed the good eye, and if the paralysed lid were upheld, he would, when walking, feel giddy, would reel, and might feel sick. The vertigo was due to "erroneous projection". There was a duplex condition. There was overestimate of the range of a movement of the eyeball intended but not really performed, and action of movements of locomotion, in accordance with that false estimate, and thus overaction of them.—Dr. POORE thought Mr. Carter's case resembled cases of chronic fatigue of muscle, such as was seen in writer's cramp. As in that disease, the muscle used for prehension of the pen, the first dorsal interosseous, was put upon the stretch for hours at a time; so in Mr. Carter's patient the internal recti were put into a condition of overstrain. And, as in writer's cramp, the muscles refused to act directly the pen was put into the hand, and headache, etc., ensued, so in this patient, who really had "reader's cramp", the muscles refused to act; as soon as reading was attempted, double vision was produced, which recalled the symptoms of former attacks, and headache, vertigo, etc., followed.—Dr. RASCH had witnessed a case of vertigo, nausea, etc., simulating serious disease of brain, in which a large clot was discovered in the external auditory canal. This having been syringed out, the patient immediately recovered. He had often known syringing of the ears to relieve such cases.—Mr. CARTER, in reply, stated that this observation simply confirmed the conclusion at which he had arrived, that no stone should be left unturned in the investigation of all the causes which might produce symptoms similar to those that had occurred in the case which he had just read.

Cancer of Stomach and Lung.—Notes of this case were read by Dr. SOUTHEY. Miss B., when first seen by him in July 1874, had been suffering for two years with indigestion, pain after all solid food, and very frequent vomiting. She had lived principally upon sop and biscuits, tea and beer. For the last few months, the vomiting had been very constant, and she was reduced to a state of great emaciation. For six weeks, she had had a cough, attended by occasional scanty expectoration; and, two days before being seen by Dr. Southey, she had thrown up a little clear blood for the first time, after a long fit of coughing. Skin soft and perspiring; feet cold; ankles œdematous; temperature 100 deg.; pulse feeble, 108; respirations 38 per minute; tongue moist; abdomen empty; bowels constipated; urine scanty and high coloured; catamenia scanty. The left thorax anteriorly was flatter than the right; its movement was less. It was nearly completely dull to percussion anteriorly and laterally. Posteriorly, the left suprascapular region was resonant. The middle and lower parts of the left lung were dull. Movement and resonance throughout the right lung were good. Respiratory sounds over the right lung were loud and compensative; breathing was defective all over the left lung; creaking and crepitant *râles* were audible anteriorly; friction-sound laterally; gurgling and creaking at the root of the lung posteriorly. The vocal vibrations were little different upon the two sides, but her voice was feeble. There was no bronchial breathing or bronchophony anywhere. The heart's apex beat in the normal situation; rhythm regular; action feeble; sounds clear; præcordial limits not assignable by reason of general thoracic dulness on left side; no evidence of pleuritic effusion; heart not pushed over to right side. On the right side of the sternum, at the junction of the cartilage of the second right rib, was a little superficial tumour, feeling firm, but not hard, and being closely tied down to the perichondrium; it was not tender, and the resonance of the right lung could be made out by percussing over it. The glands in the left axilla were a little enlarged, but no individual gland was larger than a horse-bean. The cervical glands on the left side, and some in the left supraclavicular fossa, were also enlarged. The clinical facts admitted of three interpretations: 1. Chronic phthisis, with mischief nearly confined to one lung; secondary strumous abscess formation over sternum; and chronic gastritis, so often associated with phthisis from first to last. 2. Chronic ulcer of stomach; adhesion to and perforation through diaphragm; abscess and circumscribed empyema at base of left lung, and extension of disease through it. 3. Cancer, primary and secondary—primary of pylorus; secondary of thoracic glands, root and substance of left lung. The recent appearance of the sternal tumour on the opposite side to the affected lung, the enlargement and induration of the lymphatic glands upon the same side as the affected lung, inclined Dr. Southey to the diagnosis of cancer which he gave. A few weeks later, the *post mortem* examination entirely confirmed his surmise. The small superficial sternal tumour consisted of encephaloid cancer. The left lung, firmly adherent to the chest-wall, was occupied in its middle and lower portions by extensive cancerous infiltration; the thoracic and posterior mediastinal glands were similarly affected. The right lung was quite healthy. The heart was small and flabby. Stomach small, contracted; pyloric orifice tightly constricted, but not quite closed by scirrhous growth. Both suprarenal capsules, the left one being especially enlarged, were occupied by soft cancerous disease.

Dr. SYMES THOMPSON inquired if there was any manifest discoloration of the skin, as both the suprarenal capsules were implicated in the disease.—Dr. GREENHOW thought that it might, perhaps, be considered that the prolonged vomiting was a sign of cancer of the suprarenal capsules; but, having collected many cases of cancer of those bodies, he could state that vomiting was not a symptom of the disease, and that bronzing was only found in the one special malady described by Addison. Two cases had certainly been published abroad, in which bronzing accompanied cancer of the capsules, but in those cases no microscopical examination of the organs was made. Vomiting also was only found in one form of disease of the suprarenal capsules; viz., Addison's disease. He thought Dr. Southey's case was complete in itself, and admitted no further elucidation; hence he would not refer to other points connected with it.—Dr. CHOLMELEY inquired if the pancreas was infiltrated with cancer, and if Dr. Southey had been able to trace why the left lung was implicated to the exclusion of the right.—The PRESIDENT remarked that the case presented a very interesting point, surgically speaking. The appearance of the small tumour on the outside of the chest, and the affection, small though it was, of the glands in the axilla would have led him to give the diagnosis arrived at by Dr. Southey. Such apparently small points in a case, if accurately noticed, often conducted to diagnoses of great moment. He (the President) had been asked to see a lady suffering with paraplegia of all the lower parts of the body, and with great pain at one part of the spine. He thought the cause might be cancer; but the patient said she had no lumps about her. However, upon an examination of both mammæ being made, a small cancerous nodule, the presence of which was unsuspected by the patient, was found in one of them. That was the key to the diagnosis, which eventually proved to be correct. Another interesting point in Dr. Southey's case was the length of time during which cancer of the pylorus might exist; another question also referred to was the long period during which scirrhus of the rectum might remain—both diseases might certainly exist for a number of years. Scirrhus of the rectum might generally be said to last for four or five years. It was frequently overlooked; the patient being sent to the surgeon, and said to have piles only, partly, often perhaps, because the disease had existed for years.—Dr. SOUTHEY said that his patient had had no discoloration of the skin apparently during life. The cancer involved both suprarenal capsules, and he had not been sure whether the vomiting might not be due thereto. He himself had met with vomiting in no case of suprarenal disease except Addison's. In reply to Dr. Cholmeley, he would observe that the bronchial glands at the root of the left lung were greatly infiltrated. The President's remarks respecting the duration of cancer were very interesting; in his (Dr. Southey's) case, the vomiting had lasted for many years, as had also the pain at the stomach; in fact, ever since the patient was 15 or 16 years old, she had always had pain after partaking of solid food. But how long the cancer had lasted, one could not say.

LIBRARY OF THE UNIVERSITY OF

Thrombosis caused by a Needle.—Notes of the case were read for Dr. H. THOMPSON. A young woman of hysterical temperament, was admitted into Middlesex Hospital with febrile symptoms of two days' duration. She had pain in the back, languor, and loss of appetite. There was also pain and tenderness in the right iliac region and across the hypogastrium; and, indeed, the whole surface of the trunk appeared to be unnaturally sensitive. There was a systolic murmur at the apex, and the heart's action was tumultuous, but there was no history of rheumatic fever. The day after admission, she became wildly delirious, with a pulse of 160, and a temperature of 105 deg. Fahr., followed in the course of two hours by profuse sweating. On the following day, she had a rigor, with a temperature of 107.4 deg. Fahr., again followed by profuse sweating and a fall in the thermometer. This rigor was repeated by others, so that, during the fifty-three days she remained under observation, there were rigors on nineteen; mere chilliness on four; both, as a rule, being followed by sweating. Again, vomiting or faintness either concurred with the paroxysm of shivering, or played the part of its representative. Whatever the mode of manifestation, the temperature at the time of the outbreak almost always culminated in a peak—on six days, at 105 deg. Fahr. or more; on twenty-six, at 104 deg. Fahr. or more. Twelve days after admission, phlegmasia dolens, with conspicuous enlargement of the superficial veins, appeared in the left lower extremity, and forty-two days afterwards in the right, and then remained until the death of the patient. About the time of the first appearance of the phlegmasia, she presented symptoms closely resembling those of pericarditis; and throughout the case she complained of aching pain in various regions of the spine. Finally, after a protracted period of delirium, accompanied by profuse diarrhœa, she sank exhausted, and died on the fifty-third day after admission. The treatment consisted, in the main, in the administration of quinine in large doses and in the free use of stimulants. The blood was twice examined during life, and the white corpuscles were found to be inordinately increased. At the *post mortem* examination, there were found to be numerous extravasations beneath the lining membrane of the third ventricle of the brain, but this organ was not otherwise diseased. In the chest, there were subpleural ecchymoses over both lungs, and the organs were œdematous. There were one or two old white patches on the surface of the heart. The mitral valve was thickened, and presented a chain of small vegetations along its auricular margins. In the abdomen, the inferior vena cava, from its commencement to the junction of the renal veins, was filled with a partially decolorised clot, adherent to the wall of the vessel, and channeled through its centre. At its commencement, just above the junction of the iliacs, the vessel was filled with dirty brown matter; and in the midst of this a needle was noticed resting in an oblique direction, with its eye pointing downwards and slightly to the left, in close relation to an opening in the back of the vein, about an eighth of an inch in diameter. Immediately above this, another opening existed, measuring one quarter of an inch in diameter. Through these apertures, the body of the fourth lumbar vertebra could be felt denuded of its periosteum. The left common iliac vein was filled with a brownish-red clot of moderately firm consistence and slightly adherent. The left external iliac and left femoral veins were as small as crow-quills, and were completely occluded by a whitish fibrous plug, which could not be detached from the wall of the vessel. The right common iliac, right external iliac, and right femoral veins were obstructed and narrowed by a tough fibrous-looking layer, firmly attached to the lining membrane. Immediately to the left of the third lumbar vertebra was an abscess, in which a second needle was found, lying obliquely across the body of the vertebra, the surface of which, however, was not eroded. The liver was engorged with blood. The spleen contained several infarctions, one about the size of a marble, softened in its centre. The intestines were much injected; the mucous membrane was the seat of extensive catarrh. The kidneys were normal.

Dr. CHURCH observed that different views were entertained as to the changes which took place in clots in veins. They were told that, in this case, the blood contained great quantities of white corpuscles. Might they not have been pus-corpuscles, although no metastatic abscesses were found? Dr. MOXON, in opposition to the opinions generally entertained, held the view that pus was actually formed in the breaking up of clots in veins.—Dr. GREENHOW said that the paper had been read rather prematurely, as, at the beginning of the session, there was a scarcity of papers. That was to be regretted, as Dr. Thompson, had he been in town, would probably have amplified his remarks upon the case.—Mr. G. LAWSON said that no explanation had been given of the way in which the two needles had reached the part. A patient under Mr. De Morgan, in the Middlesex Hospital, suffering with necrosis of a small part of the ileum, who was frequently brought into the operating theatre without it being possible to find and remove the dead piece of bone, had inadvertently swallowed a pin, and the bone had become diseased from its proximity to the abscess produced by the pin.

CORRESPONDENCE.

MEDICAL ADVERTISING.

SIR,—In your impression of last week, you animadverted on an advertisement in the *Clonmel Chronicle* by a Dr. Sparrow. Will you have the kindness to allow me to state that I differ entirely from the obvious inference implied in the heading, "Last Step of All". Whatever may be thought of the taste thus displayed, it must be said for the advertisement that it is *perfectly straightforward.* Suppose, on the other hand, that a medical adventurer hires two or three rooms; instals therein a "matron"; places a sign over the establishment, designating it an "institution" for the treatment of some given complaint; appoints some friend "patron"; secures the services of a friendly clergyman, and succeeds in forming a "board of directors", a few of whom, it may be, meet once in six months to hear a report read by a needy lawyer, agree upon the publication and distribution of this report, and appeal to the public for funds. Can so much be said of the latter procedure? I, for my part, fail to see it. If we are to have advertising at all, the honest and open advertising is preferable to the oblique, which takes the form of special institutions as "charities", and wrangling over obstetric bags. I am, etc.,

Glasgow, Oct. 24th, 1874. D. CAMPBELL BLACK.

THE CONTAGIOUS DISEASES ACTS.

SIR,—It was with much pain, I feel sure, that many men interested in the above subject read the *Times'* report of the speech of Mr. Stansfeld at Bristol; and as his statements, with the statistics given in support of them, might with reason convey a false impression to some members of the profession who have neither the time nor opportunity to examine them closely, I now send you, in order to try to counteract this, a short statement of some recent personal experience of the very beneficial effect of the Acts. I will not, however, draw up any special statistical tables, lest these may again "suggest the idea of a bias", but will merely give a few simple facts about which there can be no question or mistake.

The First Battalion Coldstream Guards arrived at Windsor from London on April 20th, with seventeen cases of primary syphilis and two of gonorrhœa amongst the sick, and were quartered there about five months—viz., until October 1st. During the first two months, fourteen fresh cases of primary syphilis were admitted, in thirteen of which the disease was contracted in London; and thirteen cases of gonorrhœa, in eleven of which the disease was contracted in London. In the following three months, only three cases of syphilis were admitted; viz., two of primary sores contracted in the district, and one of gonorrhœa contracted out of the district. *Thus, during the whole period, only four cases of one disease and three of another were contracted in Windsor.*

What is also a remarkable fact, and one, I should imagine, unique in the annals of the Guards for many years, is, that for about seven weeks—viz., from July 20th to September 6th—there was *no case* of syphilitic disease in hospital.

Are not such simple facts as these worth more than all the appeals to the feelings of a sympathetic audience?

On the other hand, fifty per cent. or more of the cases of illness amongst the Foot Guards of late years in London might often be found to be due to these diseases.

But, as you are well aware, though the above is a marked example of the effect of the Acts at Windsor, it is only one of an ever recurring series on a change of quarters from London to Windsor; and I maintain, though the figures quoted must always be limited when referring to one battalion, that there can be no more complete proof of the physical benefits of the Acts than the record of these half-yearly changes of battalions between the two stations named, notwithstanding the absolute hindrance to the complete eradication of enthetic disease, owing to the occasional arrival of diseased women who follow in the wake of a battalion.

With regard to Mr. Stansfeld's comments on "the milder form of disease", probably not much benefit has been obtained; but surely no one supposes there would have been such legislation for a disease so comparatively harmless.

I am not going to occupy your space by commenting upon the moral benefit of the Acts; but one cannot help regretting that Mr. Stansfeld did not give his audience a few statistics regarding the great diminution of prostitution amongst very young girls in towns under the Acts, who, probably through fear of detection, have been hindered for a time from entering upon a career of vice, and are thus allowed time to grow older and wiser.

Let us at least hope that Mr. Stansfeld, determined as he says he is never to desist from a sacred agitation till what he chooses to call these degrading laws are blotted out from the statute-book, has no thought of thus gaining popularity amongst his constituents; for, by impartial investigation, he may then, like many Christian men, be led to alter his views regarding a law salutary both for the innocent and for the guilty.

I am, etc., A. B. R. MYERS, Surgeon Coldstream Guards.

Tower of London, October 21st, 1874.

⁂ This letter was detained in transmission.

HOSPITAL CHARITY: HOSPITAL SATURDAY.

SIR,—The letter from "An Assistant-Physician", in last week's JOURNAL, expresses an opinion which is very widely entertained by those who have carefully studied the question of out-patient practice in all its bearings, aided by their own experience of it.

There are two motives which induce men to undertake the out-patient practice of a hospital. The one is a desire to gain experience in the diagnosis and treatment of disease; and for that they are willing to sacrifice much; the other—and by no means a weak one—is the desire, pure and simple, for reputation, and so for help in practice. In the present condition of things, where the work is almost unlimited and the patients at many hospitals quite unselected, the first object is difficult to attain. Becoming conscious of this by painful experience, and often overcome by fatigue from the number of patients to be seen, the out-patient physician flags in his work, and, to speak plainly, from sheer necessity, shirks it. The second object is obviously attained without any guarantee being given of the best possible performance of the work. There being but little chance of good work being done in the out-patient room; it is generally to the advantage of the physician that the work should be slurred. The present system, therefore, tends to lower the physician, and certainly deceive the lay authorities of the hospitals.

How would some remuneration of the medical officers affect the matter?

In the first place, it may be said that all paid work is better done than gratuitous work. Sentimental argument may be raised against the statement, but the verdict of the practical moralist is in its favour. Payment for work done not only adds an obligation, but removes one motive for shirking. It cannot be denied that, when a man begins to succeed in private practice, he in most instances shuffles his out-patient work. It is an ugly fact, perhaps, but it remains, and is, moreover, a necessary one. Remuneration, though trifling, would be a great step towards its annihilation.

In the second place, there would be some hope of retaining many first-rate men in hospital practice who are now choked off by want of funds. It is a well known fact that many such have to yield to others who have only the advantage of being able "to stay" for a certain number of years without professional income. It would take but little to remove this abuse to a large extent. This state of things is not good for our profession. The best men are frequently lost as teachers, and charlatanism is necessarily encouraged. The charitable public suffer; for out-patient practice, as has been shown, has a name to live, but is, to a great extent, dead. That plenty of people may be found by the managing committees to do the work gratuitously is an obvious, but a superficial retort to our argument. The said committees confessedly require the *best* work done by the *best* men; this is not, as a rule, the result of the present system. The argument that the seniors of the profession have gone through the same fires, as is frequently alleged, and have come out unscathed, is not true; for the out-patient departments in London are increasing hugely; but, if it were true, it is so only to those who are satisfied with the dictum, that whatever is, is best. One practical suggestion I will make, and trouble you no longer.

Let the funds provided by the Hospital Saturday collections be divided by the hospitals who profit by them among their out-patient medical and surgical officers. This would be no embarrassment to the present financial condition of the hospitals, and would be an earnest of an improved system, which would further the real ends of charity no less than keep up the medical profession.

I am, etc., REFORMER.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE METROPOLITAN REGISTRARS AND THE HEALTH-RETURNS.

Sir,—There is an important omission in your article on the "Weekly Returns".

The metropolitan registrars *were* paid by the vestries, and the forms were also provided, the returns being made on Saturday instead of the medical officers having to wait until Wednesday.

When the Local Government Board and the Home Secretary introduced the new Birth and Death Bill, and inserted a clause giving a fee of twopence for each return, and another twopence for each death entered in such return, surely the Registrar-General was perfectly justified in seeing that the metropolitan registrars were placed on a proper footing.

You state very truly that the weekly returns are of serious consequence to the medical officers of health; but you omit to state that, in cases of epidemics, the registrars made *daily* returns which were of more consequence still.

My candid opinion is, that the whole affair is a storm in a teacup, and that to squabble over the miserable amount in question reflects very little credit on the vestries or on the medical officers of health, whose gratitude to the Registrar-General was not for past favours, but for favours to come. I am, etc., W. H. Butterford.

Islington East, County of Middlesex, Oct. 1874.

P.S.—In common justice, I request you to insert this note.

⁂ It is, we believe, the fact that a *very few* of the vestries made arrangements with the district subregistrars for supplying them with weekly returns of mortality prior to the year 1857, when the official returns were first forwarded to the medical officers by the Registrar-General after they had been used for the purposes of his office. For these special returns, involving as they did extra labour, certain registrars were paid; and, if any such arrangement were resumed, they would be as much entitled to payment as their provincial brethren for similar services. The vestries, however, contend that no special service is at present rendered by the registrars entitling them, or the Registrar-General for them, to demand payment from local authorities. The returns are made by the registrars in the ordinary course of their duty, and, after the primary use by the Registrar-General, they are sent to the medical officers, that the information they contain may be employed for the public benefit. The vestries object, and very naturally, to the summary withdrawal, after seventeen years' constant supply, of what is public property transmitted by one public officer to another; and their protest against the arbitrary action of the Registrar-General is based on principle, and is not properly described as a squabble over what is, after all is said, a "miserable amount" of money.

PROCEEDINGS UNDER THE SANITARY ACTS.

Sir,—The following correspondence will, I think, prove of interest to your readers; and, if the Tunbridge Wells Local Board are right in their law, the matter is one of considerable importance to the profession.

The letters explain themselves, so I will not trespass on your space further than to ask, if it really be the case that a medical man renders himself liable to prosecution and fine if he allow a patient, who has come to his house to consult him, and who happens to be suffering from an infectious disorder, to depart as he came?

I am, etc., Fred. Manser.

Tunbridge Wells, October 19th, 1874.

[Copy.] Town Hall, Tunbridge Wells, Sept. 24th, 1874.

Sir,—It having been reported to the Police Committee of my Board, that you, on the 21st instant, sent one H. F., suffering from un infectious disease, to the Fever Hospital provided by the Board, contrary to the terms of the enclosed circular,* a copy of which was, at the date thereof, forwarded to you, I have been instructed to call your attention thereto, and to request that you will for the future act strictly in accordance with the terms of the circular; and, to inform you, that you have, by causing the said H. F. to expose himself in a public place or street while suffering from an infectious disorder, without proper precautions against spreading the same, subjected yourself to a penalty of £5. I am, etc., Thos. Lewis.

F. Manser, Esq., Mount Sion.

[Copy.] *To the Chairman of the Police Committee.*

Sir,—I have received a communication from your Committee, through Mr. Lewis, dated the 24th instant, in reference to H. F.

I am perfectly aware that, if I cause anyone suffering from an infectious disease to expose himself in a public place or street, I am liable to a penalty of £5; but, I deny that I caused H. F. to do anything of the kind. He presents himself at my house at ten o'clock on Monday morning last; he is shown into my consulting-room, where, on examining him, I find he is suffering from the sore throat, and is covered with the rash of scarlet fever. Now, what is to be done? Your Committee are apparently of opinion that I ought to keep him in my house until the ambulance can be obtained for removing him. I have found that your ambulance can never be procured under several hours; and, on one occasion, when I required it to remove a boy from a school, it could not be had until the day following that on which notice was given to your officer; consequently, I must have kept H. F. for some hours at least, and perhaps for a whole day in the midst of my family, a household of eleven persons, besides running the risk of infecting others who might come to consult me. Supposing, however, I had felt disposed to keep the man in my house, I had not the power to detain him. I consider I did my duty in keeping him sufficiently long to prevail upon him to go to the Fever Hospital instead of to his own family, which he was disposed to do.

Notwithstanding your letter, and your threat of a £5 penalty, I I shall act in any future case of the kind as I have done in this one, and shall think myself fortunate if my family escape scarler fever at a cost of only £5.

Your Committee may think this case an unusual one, but allow me to say, it is not so uncommon for children and others to be brought to the houses of medical men, with the rash of scarlet fever upon them, and to be taken away again to their own homes. This case has come to your knowledge because I persuaded the patient to go to the Fever Hospital. Had he gone to his home, as he wished to do, you would have heard nothing about it, nor should I. As this case is one of importance to the medical profession, I shall send a copy of this correspondence, and any future letters, to the medical journals.

I am, Sir, your obedient servant,

Tunbridge Wells, Sept. 25th, 1874. Fred. Manser.

⁂ We have laid this correspondence before Mr. W. H. Michael, who writes:—It appears to me, from reading the enclosed correspondence, that the sanitary authority were not acquainted with the facts of the case, or they would not have sent the letter. Strictly speaking, the proper course to have been adopted, would have been to send the man to his own home, and to give notice to the sanitary authority of the existence of the case, desiring them to send the ambulance to the man's residence. It is quite true, as Mr. Manser suggests, that the man might then never have reached the hospital; but it is impossible to frame regulations which will meet every conceivable case, and I believe, had the sanitary authority known the facts of the case, they would not have sent the letter of the 24th of September; and certainly that Mr. Manser did not, by his acts, subject himself to any chance of having a penalty of £5 imposed on him for spreading an infectious disorder.—W. H. M.

APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

Donaldson, Robert, M.R.C.S.Eng., appointed Sanitary Officer for the Castleshane District of the Monaghan Union.

Hales, Mark, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator to the Polesworth District of the Atherstone Union.

Irwin, FitzJohn R., M.B., appointed Sanitary Officer for the Scotstown District of the Monaghan Union.

Reed, Robert H., L.K.Q.C.P.I,, appointed Sanitary Officer for the Kilmore District of the Monaghan Union.

Ross, D. M., L.K.Q.C.P.I., appointed Medical Superintendent Officer of Health, or Consulting Sanitary Officer, for the Union of Monaghan.

Stewart, Robert W., L.R.C.P.Ed., appointed Sanitary Officer for the Glasslough District of the Monaghan Union.

Woods, W., L.R.C.P.Ed., appointed Sanitary Officer for the Monaghan District of the Monaghan Union.

Dr. H. Kirwan King has been awarded the sum of £5:4 for efficient Vaccination in the Welwyn Union.

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* The circular referred to called the attention of the local medical men to the establishment, by the Local Board, of a temporary fever hospital, and informed them that the use of the hospital and ambulance could be had on the medical attendant filling up a form provided for the purpose, and sending it to the sanitary officer. My offence against this circular was in sending the patient to the hospital before forwarding the signed form to the sanitary officer.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 22nd, 1874.

Bower, Reginald, Knowle, Warwickshire
James, Walter Culver, 129, Kennington Park Road
Webb, Charles Louis, The Welches, Bentley, near Farnham

The following gentleman also on the same day passed his primary professional examination.

Twining, Alfred Hughes

King and Queen's College of Physicians in Ireland.—At the usual monthly examination meeting of the College, held on Tuesday, Wednesday, and Thursday, October 13th, 14th, and 15th, 1874, the following candidates received the License to Practise Medicine.

Campbell, Colin George
Colgan, Henry
Warren, Michael Aloysius
Weddick, John

The License in Midwifery was granted to—

Campbell, Colin George
Chatterton, William
Warren, Michael Aloysius
Weddick, John
Wybrants, Jonathan

MEDICAL VACANCIES.

The following vacancies are announced:—

ABBEYLEIX UNION, Queen's County—Apothecary for the Workhouse: £25 per annum.

BAILIEBOROUGH UNION, co. Cavan—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Crossbane Dispensary District. Application, 7th November, to Patrick Morgan, Hon. Sec., Lisnabantry, Virginia.—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Shercock Dispensary District: £70 per annum, and fees. Applications, 11th Nov., to Stephen Radcliff, Hon. Sec.

BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications, 31st instant, to the Honorary Secretaries.

BIRMINGHAM and MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Surgeon. Application, 4th November, to the Medical Board.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road—Assistant Surgeon. Application, 7th November, to the Secretary.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY—Resident Medical Officer: £100 per annum, board, etc., or £120 per annum, lodging, etc., without board. Application, 16th Nov., to Howell Howells, Secretary.

COVENTRY UNION—Medical Officer for No. 3 District: £63 per ann., and fees.

DUNFANAGHY UNION, co. Donegal—Second Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Cross-roads (Falcaragh) Dispensary District: £100 per annum, and fees. Application, 6th November, to the Rev. V. P. Griffith, Honorary Secretary.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon. Application, 12th November, to W. J. Gant, Secretary.

ENNISCORTHY DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.

FRIENDLY SOCIETIES' MEDICAL INSTITUTE, Northampton—Out-door Assistant: £120 per annum. Applications, November 14th, to Secretary.

HINCKLEY UNION, Leicestershire—Medical Officer for the Earl Shilton District: £30 per annum, and fees. Application, 7th November, to Samuel Preston, Clerk.

JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer: £120 per annum, furnished rooms, etc. Applications to the Rev. P. A. Le Feuvre, Honorary Secretary.

LANCASHIRE GAOL, Lancaster Castle—Surgeon. Application, 31st instant, to Messrs. Birchall and Co., Deputy Clerks of the Peace, Preston.

*LAUNCESTON RURAL SANITARY DISTRICT—Medical Officer of Health.

*LAUNCESTON URBAN SANITARY DISTRICT—Medical Officer of Health.

LINCOLN MEDICAL INSTITUTE of the M. U. ODD FELLOWS—Medical Officer: £150 per annum, house, and 10s. 6d. each case of Midwifery. Applications, 1st November, to Mr. Samuel Gadd, 347, High Street, Lincoln.

MAGHERAFELT UNION, co. Londonderry—Medical Officer for the Workhouse, and Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Magherafelt Dispensary District: £80 per annum, and £115 per annum, and fees, respectively.

MIDDLESEX HOSPITAL—Resident Physician's Assistant.—Resident Obstetric Assistant. Applications, 31st instant, to H. M. Evans, Sec. Supt.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Medical Superintendent: £350 per annum to commence, house, etc. Application, 12th November, to John Robinson, Clerk to Visitors.

PENRITH UNION—Medical Officer for the Kirkoswald No. 1 District.

QUEEN'S HOSPITAL, Birmingham—Resident Secretary and Medical Superintendent (unmarried): £150 per annum, board, and lodging. Applications, November 25th, to the Chairman of the House Committee.

ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.

ST. GEORGE DISPENSARY, Mount Street—Resident Medical Officer: £150 per annum, with residence. Application, 31st instant, to G. H. Leah, jun., Secretary, 73, Park Street, W.

SCHOOL BOARD FOR LONDON—Medical Officer, Industrial School at Brentwood. Applications, 4th November, to the Clerk of the Board, Victoria Embankment.

SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich—Visiting Surgeon. Application, 7th November, to H. C. Burdett, Secretary.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

UNIVERSITY COLLEGE, London—Professor of Comparative Anatomy and Zoology. Applications, 31st inst., to John Robson, B.A., Secretary to Council.

WELLS (Norfolk) URBAN and PORT SANITARY DISTRICTS—Medical Officer of Health: £15 and £5.

WEST LONDON HOSPITAL, Hammersmith—One House-Surgeon. Applications, 9th November, to T. Alexander, Secretary.

WHITEHAVEN UNION—Medical Officer for the Lamplough District: £30 per annum.

YORK COUNTY HOSPITAL—House-Surgeon: £100 per annum, board, and lodging. Application, 31st instant, to Robert Holtby, Secretary, 5, New Street, York.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Barton, James E., L.R.C.P.Ed., appointed Assistant Medical Officer to the Surrey County Asylum, Brookwood, *vice* E. Swain, L.R.C.P.Ed.

Crawford, William, M.B., appointed Assistant House-Surgeon to the Carlisle Dispensary.

Hamerton, George A., M.R.C.S.Eng., appointed Resident Assistant Medical Officer to the Lambeth Infirmary.

James, Alexander, M.B., appointed House-Surgeon to the Liverpool Infirmary for Children.

Johnston, John, M.B., appointed House-Surgeon to the West Bromwich District Hospital.

Lammiman, Cleland, L.R.C.P., appointed House-Surgeon and Secretary to the Tunbridge Wells Infirmary, *vice* B. Rix., M.R.C.S., resigned.

Murray, Frederick R., L.K.Q.C.P., appointed Junior House-Surgeon to the Birkenhead Borough Hospital.

Scott, Robert, M.B., appointed House-Surgeon to the Dumfries and Galloway Royal Infirmary.

Seymour, Francis, M.R.C.S.Eng., appointed Assistant Medical Officer to the Norfolk County Asylum, near Norwich, *vice* James Shaw, M.D., resigned.

Venn, Albert, M.B., appointed Assistant Physician to the Metropolitan Free Hospital, Devonshire Square, E.

Waddy, Henry E., L.R.C.P., elected Medical Officer to the County Prison, Gloucester, *vice* T. Hickes, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

MARRIAGE.

Ritchie—Anderson—At Altamont, Blairgowrie, on October 20th, by the Rev. James Anderson, M.A., Fortevoit, Robert Peel Ritchie, M.D., Edinburgh, to Mary, daughter of the late James Anderson, Esq., of Bleaton, Perthshire.

DEATHS.

Greer, William, L.K.Q.C.P., of scarlatina, caught in the discharge of his duties, at Kirkcubbin, aged 27, on October 15th.

Havens, Philip, M.R.C.S.Eng., at Colchester, aged 69, on October 13th.

Shiell, Thomas Wildridge, A.B., M.B., Resident Medical Superintendent to the Wexford County Lunatic Asylum, at Enniscorthy, on October 19th.

Wood, Abraham, F.R.C.S., formerly of Rochdale, at Cookham Dean, Maidenhead, aged 78, on October 23rd.

The late Dr. Thomas Ballard.—A few of the private and professional friends of this much respected practitioner have determined, in token of their friendship and esteem, to place a simple but fitting memorial of him over his grave. Dr. Barrett, of 8, Cleveland Gardens, Hyde Park, has kindly undertaken to act as Treasurer.

The late Dr. Edmond Waters.—A monument has just been erected, at the back of the church in the Coventry Cemetery, to the memory of the above-named gentleman. The base is of marble and granite, and surmounted by a cross. The following is the inscription: "In affectionate memory of Edmond Waters, M.D., for thirty-one years surgeon to the Coventry Dispensary, who was suddenly taken away from his work to his rest, by a fall from his horse, July 15th, 1873. His patients and friends have erected this cross upon his grave. 'Looking for the mercy of our Lord Jesus Christ unto eternal life.'"

Testimonial.—A very handsome testimonial—consisting of a magnificent timepiece, a purse containing 135 sovereigns, and a brooch for his daughter—was presented last week to John Caskie, Esq., L.F.P.S.G., of Stewarton, Ayrshire, by his numerous patients and admiring friends. Mr. Caskie has practised there for many years with great success, and is now still active at his duties, though upwards of seventy-five years of age.

A Faithful Assistant.—We are asked by Dr. Osborne of Southampton to record the fact of the presentation of a very kind and complimentary address, together with a purse of £35, to Mr. M. H. P. Cuff, who has been acting for nearly seven years as his assistant, during which time he has, by his courteous conduct and unvarying kindness, won the respect and goodwill of all classes. He is leaving Bitterne for another sphere of usefulness, where we hope he may meet with that success he so fully deserves.

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* The Local Government Board has recommended that one Medical Officer of Health shall be appointed for these two districts.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Wm. Adams, "A Case of Strangulated Femoral Hernia, reduced by Large Injections of Oil." Dr. Redlet, "A Case of Transfusion of Lamb's Blood in Phthisis", communicated by Dr. Theodore Williams. Mr. William Allingham, "On the Treatment of Fistulous Sinuses by means of the Elastic Ligature.—Odontological Society of Great Britain. The following, among other communications, will be brought forward: Mr. Charles J. Fox, "On a Case of Fractured Jaw treated with Mr. Moon's New Splint." Mr. Francis Mason, "A portion of Tooth imbedded in the Lower Lip." Mr. Henry Sewill, "On the Use of Absolute Alcohol in Dental Operations." Mr. W. G. Ranger: On Unusual Injuries of Teeth. Mr. Oakley Coles will exhibit Models illustrating the Treatment of certain Deformities of the Mouth. Mr. Charles Tomes will exhibit Specimens recently added to the Museum.

TUESDAY.—Pathological Society of London, 8 P.M. Mr. Waren Tay: Two Cases of Alopecia Areata communicated from Ringworm, with the Trichophyton Tonsurans: Living Subjects. Dr. Whipham: Epithelioma of the Œsophagus ulcerating into the Trachea. Dr. Cayley: Syphilitic Disease of the Heart. Dr. Cayley: Congenital Disease of the Aortic Valves. Mr. Clement Lucas: Heart, from a Case of Cyanosis. Dr. Goodhart: Acute Enteritis. Dr. Silver: Abscess of Liver, associated with Dysentery and Sloughing of Appendix Vermiformis. Dr. Dowse: Cancer of Colon. Dr. Dowse: Cardiac Aneurism. Mr. Godlee: Alveolar Sarcoma of Skin of Leg. Dr. W. Legg: Primary Enchondroma of Lung.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Mr. Churton, "Recto-Vaginal Fistula caused by a Zwanke's Pessary"; Dr. Bathurst Woodman, "On the Prevention of Mammary Abscesses by the application of the Principle of Rest"; Dr. Gervis, "Cases of Retroversion of the Gravid Uterus"; Dr. Madge, "On a Case of Labour complicated by Pelvic Tumour and by Convulsions"; and other communications.—Royal Microscopical Society, 8 P.M. Dr. Fleming and Mr. C. Cooke, "On some Himalayan Leaf-Fungi".

THURSDAY.—Harveian Society of London. 7.15 P.M.: Meeting of Council. 8 P.M.: Dr. W. Squire, "On Infection, and the Incubation Period of Infectious Diseases".

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

L.R.C.P. wishes "Cosmopolitan" to kindly state the name of his University, and the course required for the degree.

"Water-Pipe" asks:—Who is the maker of a newly patented block-tin pipe covered with lead? Specimens were sent to the profession in the spring of the year.

Dr. Gesualdo Clementi (Caltagivone, Sicily) asks us for references to any cases in which leeches applied to the fauces have passed into the larynx.

Dr. Clementi's complaint as to irregularities in the delivery of his Journals must, we fear, be addressed to the local postal authorities. His Journal is regularly forwarded to the General Post Office every Friday evening.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

F.R.C.S.—We know of no University at home or in Europe where a medical degree can be purchased without examination; and we sincerely hope that there are none. We feel quite sure that a respectable practitioner, such as our correspondent, would find any such diploma a very broken reed on which to lean, and one pretty sure to pierce his side.

The M.D. Degree.

Sir,—Caring little or not at all how many L.R.C.P.s of Edinburgh or elsewhere affect to prefix themselves "Dr.", still I have a word to say on the restrictions as to residence and attendance on courses of lectures, which seem to exercise some of your correspondents in quest of the affix "M.D.", and which seem to me and to others to he opposed to "free trade" in education.

It matters to none of us, professionally, that the omnipotent public chooses to dignify us generally as "Dr."; but what touches not a few of us is, the almost absolute impossibility of obtaining a British University degree in medicine after the close of our student curriculum. Cases must yearly arise where men, long and successfully devoted to general medical and surgical practice, desire to elevate themselves to the higher, and, as we are led to believe, the more dignified walks of our art. I do not allude to the practitioner in full work who has a sort of undefined hankering to call himself M.D., but to the case of a man for whom a rare success in life, or a wealthy marriage, or a state of health slightly impaired by some years of toil, renders it a desirable step, the attainment of which step—a laudable ambition in itself—is also likely to be a beneficial occurrence for the neighbourhood in which success, marriage, or impaired health may have been contracted. It is quite inconvenient for such an one to break up his establishment for the sake of a few months' residence in a dull university town, or for the attendance on duller courses of lectures.

Let us suppose, for the sake of illustration, that the hospital in the county town has not its full complement of physicians, and a successful and well known practitioner of the town or neighbourhood, still a young man, sees his way to fill the vacant, and in some instances necessary, post. No; the rules of the institution make the graduates of a few privileged universities the only ones eligible, and so he has to forego his ambition; and, however able and willing to pass equally stiff examinations, as the sucking scion with bare cheeks and barer manners who steps in, he must take a back seat. The young gentleman, fresh from the examination-room, passes some miserable and stingy years, and at last succeeds in making ends meet; while the other man, who could at once keep up the social and professional dignity of his position, has to stand aside.

Now this thing should not be. If the authorities of the University of London would look into the matter, they would find that, by a very simple modification as to the date of attendance on a few courses of lectures, they would obtain an accession to their ranks which would do no discredit to their traditions. I speak advisedly when I say that many men in a position, not dissimilar from the one supposed above, would be quite willing and able to satisfy the most rigorous examinational tests, and this notwithstanding that it is considered necessary to pluck an aggregate of something like 70 per cent. of candidates, in order to maintain the standard of the coveted degree. Why should such men be denied an opportunity? Though many may deem me to be twenty years before my time, I still believe that if this question were calmly and candidly considered by the more liberal section of the senate or convocation (I do not know which has the management of such things), means would be found by which knowledge could reap a reward, if only in the form of a permission to affix the "magic" letters M.D. to an already well-known and respected name.

I am, etc.,
Fred. E. Manby, F.R.C.S.Eng.
Wolverhampton, Oct. 26th, 1874.

Mosquito Bites.

Sir,—Your correspondent would find the treatment of these and all other insect-bites much enhanced by the addition of carbolic acid to the olive oil which he advocates, in the proportion of one fluid-drachm to an ounce or an ounce and a half of oil. This combination not only relieves the irritation and promotes the healing of the bite, but it effectually drives away all other mosquitos. In fact, carbolic acid is obnoxious to all insects; it is also well known to be so to rats. Two or three years ago, I recommended a lady, who was much annoyed by gnats in her gardening operations, to wash her hands with a weak solution of carbolic acid (1 part to 100) in water, and to apply a little to the face and neck. This simple plan prevented all further annoyance.

I am, etc.,
D. De Berdt Hovell.
Five Houses, Clapton, Middlesex, Oct. 17th, 1874.

The Induction of Premature Labour.

Sir,—Will you allow me space in your Journal for a few very words in reply to Dr. Swayne's letter of the 10th instant? I entirely agree with Dr. Swayne's remark, "that it is impossible to come to any definite conclusion as to the best method of inducing premature labour from the experience of two or three cases only". In my paper of August 29th, I gave, as stated, one typical case only as being illustrative of my ordinary experience: had I deemed it necessary, I could have mentioned more. The operation which I recommended is the one introduced and ordinarily practised by Dr. Barnes, whose experience in such cases we all know is very large. What I contended was, and what I still contend is, that the operation which I prefer is equally as safe, both for mother and child, as Dr. Swayne's, and that it is much more expeditious and less irksome for the patient; for, whereas Dr. Swayne's plan occupies, on an average, over four days, and sometimes even a much longer period, by employing that which I advocate we may, almost to a certainty, rely upon a case being terminated within twenty-four hours. I repeat, therefore, with all due deference to Dr. Swayne's opinion, that I cannot see the advantage of extending a disagreeable process over four days or more, when equally good results are attainable in twenty-four hours.

I am, etc.,
October 13th, 1874.
William Draper.

The Briton Life Assurance Company.

Sir,—If Mr. Evan Williams will procure the returns to the Board of Trade by Messrs. Malcolm and Hamilton, and carefully study how far the total amount of the *annual premiums* and the total amount of the assurance fund stands in relation to the total amount of the sum assured, he will find an answer to his question. In fact, no one who has his life assured should rest until he has procured this document.

I am, etc.,
An Associate of King's College.
Streatham, October 26th, 1874.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MEDICAL TITLES.

SENEX (Southampton) describes a very discreditable course of conduct, but one that does not really touch the question of titles: it would be just as discreditable in the licentiate of a college as in the graduate of an university.

THE SPREAD OF CHOLERA IN INDIA.

SIR,—In your issue of October 10th, you quote from, and comment upon, Dr. Robert Pringle's paper on Asiatic Cholera. In the article it is stated that Dr. Pringle believes that one of the most active agents in the spread of cholera amongst Indian pilgrims is the so-called "holy food", prepared and distributed at the Temple of Juggernath. The Temple of Juggernath, and the town of Pooree in which it is situated, have been greatly blamed for many a day for the large share they are considered to have in the engendering and distribution of epidemic diseases—notably cholera; but in many instances this blame, in my opinion, is hardly deserved. Last year and the year before, when I was medical and sanitary officer of the town and district of Pooree, several outbreaks of cholera occurred in the place, and in not one instance had I good reason for believing that *maha prasad*, or "holy food", was really answerable for either the origin of the disease or its spread. There was an outbreak in the beginning of 1873, which at first had all the appearance of commencing at Pooree; but after a great deal of inquiry I found out that the disease was brought into the town by a batch of pilgrims, who had had it among them while they were on their journey. The first cases happened in the lodging-house where these people were located, and from them it spread among the townspeople. This particular batch of pilgrims left after a few days' stay in the town, and returned home by another route, and cholera spread in their wake. Some little time after their departure the town became again free from the disease, as it was before their arrival, and continued so for some months.

The next outbreak seemed to depend on meteorological conditions, as it seemed—judging from the best information I could find—to make its appearance on the road leading into the town and in the town itself about the same time. It did not, however, last long, any more than the one before it. Such outbreaks are frequent at Pooree; and I merely mention the circumstance to show that the Temple of Juggernath and its belongings are not always, nor in my opinion often, deserving of the grave responsibility laid to their charge. They are, however, responsible in this respect—that a vast concourse of people constantly visit the shrines, who in their fanaticism disregard simple rules of sanitation, which in their own homes and villages they observe with care.

I may further observe, that it is frequently stated, and sometimes by those in high positions, that the water supplied at Pooree is noxious and bad; but such is really not the case. I mention this not on my own authority only, but also on that of Mr. Nicholson, analytical chemist in the service of the Government of Madras, who kindly made a thorough examination of the wells and tanks of the town about two years ago. The waters are, in fact, exceptionally good, as one would naturally expect in such a sandy soil.

I am, etc.,
JOHN MEREDITH, M.D.

Wellington, Somerset, Oct. 1874.

THE PROPAGATION OF PUERPERAL INFECTION.

ANTISEPTIC.—A coroner's inquest was held at Wolverhampton on the 17th instant on the exhumed body of a woman who had died of puerperal fever in the practice of a midwife, who had lost six other cases a short time previously. She was warned by the borough medical officer not to attend any further cases for three months, as he considered no midwife should attempt to deliver any woman within that period who had had a case of puerperal fever. He stated he had no power under the Sanitary Act to restrain her from practising. Two other medical men gave evidence to the effect that every surgeon invariably isolated himself for a month after a case of childbed-fever. "Antiseptic" writes to us to ask whether "it is necessary for medical men to isolate themselves from midwifery for a month after attending a case of puerperal fever, being himself under the impression that an entire change of one's clothes aud a bath were sufficient". Our own experience has led us to the following conclusions, which we believe in the main to be in accordance with the experience of most accoucheurs who have had large opportunities of observation. Where a woman has become infected by the attendant, a lapse of quite a month is requisite before resuming midwifery; where, however, the fever has arisen autogenetically, or heterogenetically otherwise than through the practitioner, a mere change of clothes, a bath, and a careful use of disinfectants, are quite sufficient to prevent him from spreading the disease. The chief difficulty is for the accoucheur to find out whether he is really the conveyer of the poison; and this is rendered still more obscure by the fact that not every woman who is attended by an infectious person is attacked with the disease. However, the medical man may be pretty sure he is the propagator of the affection if he discover, on carefully reviewing his recent cases, that some of them have had anomalous febrile symptoms. In one case that came under our notice, the fever was still carried by the attendant after a lapse of three weeks, and an absence from home of a week. In this instance the individual was feeling very unwell, and was suffering from a sore throat: strange to say, the disease was of a much severer type after the interval of rest than before. It is a lesson to the medical man not to overlook his own state of health when he discovers he has infected any of his patients.

BLOOD-LETTING IN OLD TIMES.

SIR,—To such of your readers as may not have the opportunity of seeing Mr. Greville's *Memoirs of George IV*, the following extract from his journal will be interesting, more especially as it is very pertinent to the remarks made by Sir James Paget at Norwich on the subject of blood-letting—remarks, to the truth of which, as a practitioner in those days, I can fully attest.

"1820, February 4th.—On Sunday last, arrived the news of the king's death. The new king has been desperately ill. He had a bad cold at Brighton, for which he lost *eighty* ounces of blood; yet he afterwards had a severe oppression, amounting almost to suffocation, on his chest. Halford was gone to Windsor, and left orders with Knighton not to bleed him again till his return. Knighton was afraid to bleed him. Bloomfield sent for Tierney, who took upon himself to take fifty ounces from him. This gave him relief; he, however, continued dangerously ill, and on Wednesday he lost twenty ounces more. Yesterday afternoon he was materially better for the first time. Tierney certainly saved his life, for he must have died if he had not been blooded."

Now, in spite of all this bleeding, there is not a word said about his being weakened by it, though at that time (his accession) he must have undergone great fatigue. "Verily, there were giants in those days."

I am, etc.,
C. M. THOMPSON.

Sevenoaks, October 1874.

LANCING THE GUMS.

SIR,—There can be no doubt that dentition is made the scapegoat for many of the diseases of children, when really it has nothing to do with them. Dr. Finlayson has admirably summed up all that has been written for and against the practice of lancing the gums for the purpose of curing or relieving certain infantile diseases. In my opinion, dentition has very little indeed to do with such affections as infantile diarrhœa, vomiting, convulsions, rashes, etc.; improper diet, want of ventilation, bad nursing, etc., being much more prolific causes. Such being my opinion, I consider lancing the gums in such affections to be generally an unnecessary operation. Consequently, when a doctor or any one else lances a child's gums merely on the chance that there is something wrong with the coming teeth, he is committing a perfect piece of cruelty—in fact, a species of unnecessary vivisection. There are only two conditions under which I consider that lancing may be undertaken with propriety. They are, first, when the child is exceedingly fretful, crying frequently, but without any apparent cause, there being no bowel, stomach, or head affection, nor any other complaint perceptible that would produce irritation—if this fretfulness be soothed by rubbing the gums with the finger, and at the same time we observe that there is free salivation, that the gums are hot and swollen, that a tooth is close to the surface, and that the gum is raised and shining at that point. That relief is obtained under such circumstances, I learnt personally, when I cut one of my wisdom-teeth. The second condition is, when the above symptoms are present, but are accompanied by bowel, stomach, or head affections, etc., which are evidently the result of the irritation. This condition, however, I judge to be very rarely observed. Care must be taken to distinguish between the relief given by rubbing the gums and by the mere act of sucking.

The great cause of the popular belief that dentition produces these illnesses, arises from the fact that most people suppose that the tooth forces its way upwards and cuts through the gum by the sheer force of its growth. But such is not the case; for the tooth makes its way through because the gum-tissue becomes absorbed as the tooth increases; there is no cutting at all. So long as the child is healthy and free from any constitutional taint, absorption of the gum-tissue will go on in exactly the same ratio as the growth of the teeth; but directly the health is affected by diarrhœa, etc., then both growth and absorption will be hampered by the constitutional weakness thereby induced, and no amount of lancing will cause the teeth to grow more quickly, or hasten absorption of the gums. The great point to be attended to is to remedy the true cause, which can always be detected if care be used: and, when the cause is remedied and the disease removed, it will be found that the teeth will make their exit in due time.

I am, etc., W. J. BARKAS, L.R.C.P.Lond., etc.

Newcastle-on-Tyne, September 20th, 1874.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Oct. 26th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph: The Hampshire Telegraph: The Sheffield and Rotherham Independent; The Standard: The Portsmouth Times; The Armagh Guardian; The Morpeth Herald; The Bradford Observer; The Stroud News and Gloucestershire Advertiser; The Glasgow Herald: The Liverpool Mercury: The Liverpool Porcupine; The Scotsman; The Hackney Express; The Bedale and Northallerton Times; etc.

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REMARKS
ON
PLEURITIC EFFUSION.

BY
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EFFUSION into the pleural cavity, as the sequel of one or another form of disease, is by no means of uncommon occurrence. Formerly, and most especially before the physical signs of thoracic complaints were known, as now they are known, liquid accumulations in this serous sac were often not recognised; and, it is no exaggeration to say, that innumerable patients were lost, who, had they lived in these days, would have been saved, and restored to health and comfort. There are few instances in the practice of medicine in which a rightly directed treatment, and sometimes in which instrumental means, can be so fully and so manifestly brought effectually to bear. When the effusion is detected in notable quantity, it is most frequently the product of inflammation of the pleural membrane, and very generally such inflammation has been, and may continue to be, of the subacute or latent form. Large quantities, however, of fluid sometimes collect in this sac, in an active, passive, or mechanical manner, without being preceded or attended by inflammatory products, when it is mere hydrothorax; but it may be observed, that hydrothorax is usually a double, and not a single, pathological condition, and the sequence of serious organic disease of the heart or great vessels, or it may be of renal degeneration; and when it obtains, the circulatory and respiratory secretions are so interfered with, that dyspnœa and threatened orthopnœa become prominent symptoms, as evinced by facial lividity and anxiety, clammy perspiration or coolness of expired air. The sequel now about to be considered, and illustrated by several examples, is chiefly that form which originates from the inflamed serous membrane lining the chest, and which, as the rule, occupies but one cavity of the thorax, and, it may be added, more especially the left side. Double effusion, from such cause, does sometimes occur, but very exceptionally. Effusion may result in the sthenic types of pleuritic inflammation, in those which are of the fibrogenic character. The more plastic materials are then thrown out and serous exhalation is in less marked degree; but these types are far less common than those in which the exudates are mostly serous or sero-purulent, and, consequently, not formative, if the intercurrent and localised examples of pleuropneumonia of pulmonary phthisis be excepted. The changes which come to pass within the chest are mainly influenced by the relative proportion of the coagulable or albumino-fibrous parts, in the same acute forms of pleuritis, and relatively not the degree of plethora and high vitalism of the patient, the plastic products are disposed to become organised, and the contrary is the fact, as, in a low and depressed organism, fluidity then becomes the significant event.

Again, the part of the thorax which is the seat of primary lesions determines, in marked manner, the kind of result which eventuates. In the upper part of the pleura, opposing surfaces are in more immediate contact, hence the common prevalence of adhesion at that situation; and as liquid effusion naturally gravitates into the lower portions of the pleural cavity, it is thus that the pleuræ are kept apart, and that the depending situations are prevented from adhesion, and that there the first signs of effusion are presented.

The ancient and older physicians knew little more than two symptoms indicative of pleural effusions. They mainly relied upon Hippocratic fluctuations, and inability to lie on either side. The modern means of diagnosis have conferred great certitude in the detection of its presence. The subjoined examples will show that, in many instances, there is a great and salutary tendency in the way of absorption, and I believe that this tendency can be much aided by the timely use of suitable agents, and by placing the patient under a judicious general mode of treatment. It is, however, a fact, which need hardly be insisted upon, that, in many cases, other methods are imperatively demanded for the removal of the fluid, or a fatal termination would inevitably ensue. Sometimes nature indicates the mode for adoption, by spontaneously giving an exit to the long pent-up secretion (empyema of necessity); but nature's process is slow and tedious, and the relief should be anticipated. In scarcely any examples of this affection is it possible to correctly pronounce the kind of fluid which is effused; it may be simply serous, sero-purulent or absolutely purulent. Various combinations of the plastic and liquid exudations are discovered in the same subject, and there is no doubt that the exudation, which at an early period is serous, may form consecutive and vascular changes in the membranes, or form a more general alteration in the vital fluids, become purulent when no air whatever has been admitted into the cavity, precisely as pus is sometimes secreted in the other great serous cavity, that of the abdomen.*

Latterly, much has been written, and great light has been thrown on the nature of this affection, and it is now beyond dispute that these collections within the chest walls are not to be regarded with so much dismay as they once were, and that the disease is far more amenable to a rational and properly selected treatment. In the following cases it will be seen that large quantities of effused fluid can be absorbed, and a full recovery eventuate. It has also been, during the last few years, amply shown that the drawing off of the fluid can, in very many instances, be had recourse to, not only without any of the risks which formerly were entertained, but with the best effects.

CASE I. Not long ago, I was summoned into the country to see a lady who had just returned from a visit in the north of England. This lady was a thin and delicate person, 65 years of age, and for many years she had not enjoyed good health. During this visit to the north, she had a severe attack of pleuro-pneumonia, and had been treated by two physicians of local celebrity. As soon as she could bear the journey, she returned home. When I saw her, she complained of shortness of breathing; she said it distressed her to go up stairs, and that even the motion of her carriage gave uneasiness. The lower two-thirds of the right thorax showed enlargement; the intercostals were tense, and she could not lie on her left side. There was marked dulness on percussion up to the angle of the scapula. On the application of the stethoscope, there was no vesicular murmur over dull area, but, over that area there were tubular breathing and bronchophony. The line of dulness varied on the movement of the trunk. The pulse was accelerated and the digestion much impaired. She was treated at the last by blisters, mild alteratives, iron, and quinine, and cod-liver oil. After the blisters, the full use of iodine externally was employed. She was eleven weeks under my care, and made a full recovery.

Thoracentesis was not insisted upon as absolutely requisite in this case, although I would have recommended the operation if the same physical signs had been presented in some other patients. This lady was of extremely nervous temperament; her friends were very averse from any instrumental interference; and I was earnestly requested to try such means as might produce absorption.

CASE II. William Payne, aged 37, a labourer, was admitted into the infirmary, March 24th, 1870. He was a tall and powerfully built man, who had usually enjoyed good health. Before his admission into the institution, he was under the care of our house surgeon, Dr. Hall, for a dangerous attack of pleuro-pneumonia. I then saw him with Dr. Hall, and, for a time, his recovery was very doubtful. When he came into the infirmary, there were all the general symptoms and physical signs of pleuritic effusion. Inspection showed the right chest to be larger; it measured more than the left; its contour was smooth and bulging. Percussion elicited a dull, dead sound over the lower two-thirds. At the subclavicular and supraspinous fossa regions, there was excessive resonance. Auscultation gave tubular breathing and bronchophony over the dull area. He could not lie on the left side. There were dyspnœa, increased by exertion, accelerated pulse, and an anxious facial expression. He was treated with blisters, iron, quinine, and, subsequently, iodide of potassium internally, and the application of iodine externally, in the proportion of one part of the tincture of iodine and three of water. He was discharged cured, May 19th, having been eight weeks in the hospital.

This man having all the appearance of possessing a vigorous and an unimpaired constitution, I resolved, for a time at least, to try the process of absorption. He soon began to improve; and, with the progress he made, the idea of paracentesis was discarded. Dr. Hall saw him a few weeks after he left the hospital, looking robust and healthy; and the man declared he had never felt in better health.

CASE III. In July 1870, Mr. R. came to consult me for, in his own words, "difficulty of breathing and a weight on his left side". He was a healthy, robust-looking man, upwards of sixty. He told me that, a few weeks before, he had had an inflammation on the chest. The nature of his complaint was at once obvious. There was bulging of the left side, it measured more than the right; the apex-beat was felt beyond the middle line of the sternum; there was that absolute dulness denoting fluid. Over a large space, there was no vesicular murmur, nor vocal fremitus, and, at the interscapular space, the voice was bronchophonic. The right chest was super-resonant, and the breath-sound exaggerated. He was twice blistered, had iron, quinine, and cod-liver oil, and iodine was applied externally. He was requested to live well, to take four or five glasses of port wine a day, and to keep as still as he possibly could; not to walk, nor to ride on horseback. He made a rapid and full recovery. At the end of five weeks, he ceased coming to consult me.

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* This pathological fact I have more fully dwelt upon in the article on Peritonitis, in Reynolds's *System of Practical Medicine*.

Case iv. Jasper Ashdown, a fresh-coloured young man, aged 20, was admitted into the infirmary on July 12th, 1870. He had had pleurisy, and he came to the institution for difficulty of breathing, and pains and weight in the left side. The history of his case, the general symptoms and physical signs, left no sort of doubt as to the presence of pleuritic effusion. He was treated like the foregoing patients, but, in addition, he had the iodide of potassium in the decoction of broom tops. He was discharged at the end of two months with very little dulness remaining, and which, it is probable, was consequent on some adhesion of false membranes.

Case v. George Parsons, aged 27, became an out-patient under the care of Dr. Hall, and was first seen October 28th, 1870. He then complained of difficulty of breathing. On auscultation, there was friction sound at the angle of the left scapula, and dulness towards the thoracic base. Ultimately, three-fourths of the left chest was dull, and there were all the accompanying and common signs of effused fluid at the time I saw him with Dr. Hall. The external application of iodine was applied in the manner recommended to me by Dr. Fuller. The entire dull area was painted over with the tincture of iodine, diluted in the proportion of one of the tincture and seven of water. The half of a waistcoat was made with two thicknesses of new flannel, and one of calico-cloth, and this was continually worn. At the end of five weeks, the dulness had disappeared, and the fluid had become entirely absorbed.

Case vi. Samuel A., 21, a discharged soldier, was admitted as an in-patient June 27, 1870. The features were drawn and bloodless; he looked extremely ill, and as if affected with some fatal malady. The simple exertion of walking rendered his breathing quick and laborious. He began to have a cough and chest affection, as he termed it, before Christmas, and had been treated at the respective stations of his depôt, which were Chatham, Bradford, and Manchester. When at these places, he had had cough mixtures, but had no poultices, blisters, or other remedies. In fact, the nature of his illness had not been discovered. His chest had never been examined. He was discharged the service, and returned home. On admission, he was much emaciated, and the skin was harsh and dusky. Inspection showed the right thorax larger than the left. It measured an inch more than the other side. The præcordial impulse was felt over an abnormally large area. The apex beat was to the right of the mesal line. Percussion at all parts of the left chest gave a short, dull, dead sound. There was no tremor imparted by the voice to the flat hand. Percussion over the right thorax gave abnormal resonance, and vocal fremitus could everywhere be felt. On the application of the stethoscope to the left chest, it was almost silent; even so high up as the subclavicular spaces there was no vesicular murmur. At the superclavicular and interscapular regions, distant tubular breathing was alone heard. There was supplementary breath-sound over the right chest, and there, at several places, the murmur was puerile. He had a loud, dry, barking, incessant cough, which no remedies seemed to alleviate. Pulse 120; respirations 35; temperature 97; and the digestive functions were much impaired. Shortly after his admission, my colleague Mr. Marsack kindly, at my request, introduced a trocar between the fifth and sixth ribs, but no fluid came away. I still, however, gave it as my opinion that a large quantity of fluid existed, notwithstanding that pyogenic membranes, or absolute pulmonary adhesion, presented its escape. The kind of treatment before described was used, but with no benefit. He became anasarcous, and, the end being obvious, he wished to return home. He was discharged, and died at Tonbridge a few weeks afterwards.

Mr. Cleveland Smith very kindly sent me an account of the necropsy. The left pleural cavity contained between three and four pints of inodorous straw-coloured serous fluid, and the pericardium nearly a pint. In the right pleural sac there was a small quantity of effusion. The left lung was small and consolidated. It was adherent to the chest wall. The superior lobe was friable, and readily broke upon pressure, when vomica, containing pus and tubercular deposit, as revealed by the microscope, were discovered. The right lung was not diseased. The heart was normal, and the pericardium non-adherent. This man's case was very illustrative of that low and insidious form of thoracic effusion which is not infrequently associated with tuberculosis. The pleura takes on a masked form of inflammation, and copious exudation becomes a prominent sequent.

Case vii. Ann Lawrence, aged 40, and who had eleven children, was admitted into the infirmary in April 1870. She had had pleurisy three months previously, and, on admission, there was great dyspnœa; the breathing was much accelerated on the least motion, the features were pinched and careworn, and she looked extremely ill. I shall not stop to give her symptoms and the physical signs in detail, but shall merely add that there were the broad and very apparent characteristics of effusion into the left pleural sac, the apex-beat being felt beyond the right sternal margin. On April 13th, Dr. Hall, at my request, introduced a trocar at the sixth interspace. Sixty-three ounces of clear greenish straw-coloured serum were drawn off to the patient's instant and great relief. That evening she could lie on the right side, which she had not been able to do for several weeks. For some days, she appeared to progress favourably; she then, without apparent cause, became worse, and gradually sank on April 23rd. Inspection was not allowed.

This case, like the last recorded, it is exceedingly probable, was one of which tubercle was the cause. Her emaciated and general appearance pointed to a chronic and wasting disease.

Case viii. Ann Sayers, a little girl, aged 10, was an out-patient under the care of Dr. Hall. She had scarlet fever in December 1870, and which was followed by scarlatinal dropsy. The urine contained a very large quantity of albumen. There were also numerous casts, epithelial cells, and blood-discs. She had acute pleuritic pain in the right chest, and dulness and effusion eventuated. The respiration became most distressing. On January 26th, thirteen ounces of purulent matter were drawn off; and, on February 9th, 1871, Dr. Hall again introduced the trocar, and twelve ounces of thick creamy pus were taken away. The child received momentary relief after each operation.

I prognosticated that the effusion in this case would be purulent, because it was the sequel of scarlet fever, and in a subject affected with renal poisoning. She afterwards died of uræmia.

Case ix. On October 16th, 1870, I was called to see a young lady, aged 15, who was in acute rheumatism. She was placed in blankets, and the alkaline treatment was prescribed. The large joints became swollen. There were no cardiac symptoms, and, at the end of three weeks, she was convalescent. She then had a chill, the fever returned, the large joints again swelled, the temperature rose to 104, and very serious peri- and endo-carditis supervened. There were extensive effusion into the pericardium, pleuro-pneumonia and great effusion into the left chest, with renal affection, being also the complications. For some time this young lady was in extreme peril. She slowly made progress towards amendment, and the graver symptoms subsided. She was blistered. She took the iodide of potassium; the iodine ointment was sedulously used; and she wore the half-waistcoat before described. I paid my final visit to her on February 7th, 1871. All dulness had vanished, both at the cardiac region and in the left chest. The breath-sound could be heard to the very base of the lung. The only trace of her dangerous illness was a slight systolic *bruit*. I examined her with the stethoscope in October 1874, when no trace of valvular disease could be detected.

Case x. On October 19th, 1870, I was requested to see a young gentleman, aged 20, who was pursuing his studies at an establishment in the country. He was a tall, broad-chested, and powerful young man. He looked pale, sickly, and depressed. In the previous March, when in the West of England, he had pleurisy. He told me that since that illness his breathing had been affected. He complained that he could not walk quick, go up a hill or up stairs, without difficulty, and that he could not lie on his right side. There were all the characteristics of left chest effusion. The dulness was most distinct. The apex-beat could be felt at the middle line. I suggested thoracentesis. His tutor and himself begged that a trial might first be given to medical remedies. He was treated as before described. He had iodine tincture diluted with seven parts of water applied with the half waistcoat. A generous diet, wine, and quiet were recommended. He made a full recovery, gained a stone of flesh, and my last journey to visit him was December 18th.

Case xi. I was requested on September 30th, 1870, to visit A. T. When I arrived, I was introduced to a gentleman seated up in bed. He was a large, broad-chested man, aged 35, who had not particularly the aspect of an invalid. He told me that he then held an official position in London, but had been obliged to absent himself for a time from his duties. He said that, in former years he had had great powers of endurance; that he had, at twenty years of age, commanded an expedition of seven hundred men up the Nile, when he went through great exertions. Up to 1868, he had been in a cavalry regiment in India. In the spring of 1867, he had an attack on the chest, for which he was blistered. After that illness he went to the hills; but this chest attack had left difficulty of breathing, a frequent feeling of suffocation, and a proneness to syncope. He relinquished his military position and came home. On his return, he looked better in the face than his friends expected. They doubted that his retirement had been imperative, and much family misunderstanding ensued. He consulted two London physicians of eminence. One said little was the matter except a weak heart. The other declared, as the patient left his consulting-room, "that from head to foot he was as sound as a bell". He was subsequently under the care of a well-known physician in a fashionable watering-place, and also the family surgeon in town.

I percussed him beneath the clavicles, and there was perfect resonance. I then applied the stethoscope, and the vesicular murmur was distinct and clear. I placed my flat hand at the præcordial region, but could feel no impulse. I desired him to strip. There was bulging of the left chest-walls. The sides of the thorax were not symmetrical. Further investigation proved all the physical signs of left chest effusion. Its surfaces were smooth and even, the dulness was absolute; it was the kind of dulness which fluid alone can give. There was no fremitus nor vocal resonance. The respiratory sound was abolished. The breathing was tubular, faint, and distant; the apex-beat was lost, and mensuration added to the testimony of effusion. In this assemblage of facts there could be no doubt in diagnosis. The right chest was hyperresonant, and the murmur exaggerated.

I told this gentleman that his dyspnœa, his ability to lie but on one side, his faintings, and the fatigued, done-up condition which followed his office hours, were and had long been caused by the presence of a large quantity of fluid on his chest. He was astonished—incredulous! No such opinion had ever been given. I replied that such was beyond all doubt.

This, to him, strange opinion having been expressed, it was arranged that Dr. Fuller of London should meet me. He confirmed my diagnosis in each and every particular. He said to the patient's friends, "I believe there are not less than three pints of fluid in his chest; and agree with the opinion of Dr. Wardell, that fluid has been there since the spring of 1867, when he had inflammation in his side in India." Dr. Fuller advised paracentesis. I asked my colleague Mr. Rix to meet Dr. Fuller and myself. Mr. Rix introduced the trocar at the fifth interspace; no fluid escaped. Adhesion, pyogenic membrane, and lymphic deposit, doubtless prevented the liquid from being reached. Iron, quinine, cod-liver oil, and the external application of iodine, and the half-waistcoat, were ordered.

In the course of two or three weeks, his respiration was easier and the physical signs were improved. After having been under my care two months, he left Tunbridge Wells very greatly benefited, but with some fluid still unabsorbed.

On November 17th, I received a telegram to meet Sir William Jenner and the general attendant at a consultation in London. The patient fancied he was not so well. To my own astonishment, the left chest was resonant almost to the base; there were friction-sounds and coarse crepitation where before nothing could be heard; and the apex-beat was now distinct beneath the mammæ. Sir William said "there had, beyond doubt, been recent and great effusion; that some small quantity of fluid still remained; but he believed it would all be absorbed". At the request of the family, he put this opinion in writing. The patient had at this date resumed his official position; he could lie on either side, and had gained flesh.

A. T.'s last note was dated February 7th, 1871. In it he said: "I have now been so long at work, and through such severe weather, without feeling worse, that I hope I am *out of the wood*. Until yesterday, I pursued the iodine treatment as prescribed by you. My doctor examined my chest a week ago. He then said he was perfectly satisfied that the fluid has now quite disappeared". This gentleman went to the West Indies to fill an official appointment; and a member of his family wrote to me some time ago, and stated that he continued well. This patient called upon me October 21st, 1874. He looked and was extremely well. I most carefully examined his chest, but could not detect a morbid sign or sound.

It may, and very properly, be asked, why it was that two hospital physicians, both occupying a distinguished position, should have overlooked the real conditions of this gentleman's case. He went to their consulting-rooms; he was an erect and muscular man, and his features did not plainly indicate the extent of disease under which he laboured. Percussion beneath the clavicles gave no dull or doubtful sound; unfortunately, they did not examine the chest posteriorly and to the base; and I believe the patient did not sufficiently impress upon them his inability to lie but on one side, and the oppression which he experienced.

CASE XII. J. F., single, a maid-servant, aged 22, a thin and an extremely pale-looking young woman, was admitted August 22nd, 1871. She had been several weeks ill, and her case was regarded as one of consumption. It was ascertained that her illness commenced by an acute inflammatory attack in the chest, which had been treated by fomentations, poultices, and other remedies. She made a partial recovery, but did not get well. Her wonted strength did not return, a feeling of breathlessness was caused by even trifling excitement, and she could not lie on her left side. On admission, the conjunctivæ were blanched; great dyspnœa was produced by going up stairs, and the features showed that drawn anxious look, so expressive of pulmonary embarrassment. On inspection, the right chest looked bulging, and was evidently, as mensuration proved, larger than the left. The flat hand, passed over the surface of the right side, felt full and smooth. On both hands being placed simultaneously on the chest, tactile fremitus was distinct in the left, but absent in the right, thorax. The intercostal spaces were obliterated on the diseased side. Auscultation detected distant tubular breathing, unmixed with any vesicular murmur, in the one back, and puerile respirations in the other. The præcordial impulse could be but faintly felt. There was no dulness at the apices, nor yet any crepitation. The case was very clearly one of effusion. As, however, the dulness at the right back did not extend higher than the angle of the scapula, I resolved on trying the power of absorption, at least for a time. The iodine and half-waistcoat were employed. She was ordered iron and quinine, and put on extra diet, with a moderate allowance of port wine. Under this treatment she began to improve. The rotund contour of the right side became less marked, the intercostal spaces more delineated, and the air could be heard weakly nearer the base. She was discharged, November 21st, with but an insignificant amount of dulness, quite near the base, and which it was presumptive might be more owing to adhesion and organised exudation than to any remaining fluid; whilst her general appearance attested the very marked improvement which she had made.

CASE XIII. Mrs. M., married, aged 40, never had a child, was pale, haggard, and sickly-looking. On questioning her when she came to consult me (September 3rd, 1871), there was a history of acute pleurisy in the preceding March. For many weeks, she had been under homœopathic treatment, but without the slightest benefit. When I first saw her, she complained of great difficulty of breathing, accompanied by much palpitation, with a tendency to faintness on the least exertion. Inspection showed diminished mobility in the left side; the surface on this side being smooth and even, and the intercostal spaces were wide and tense. The heart's impulse was feebly but most distinctly felt to the right of the mesial line. Percussion gave that absolute, dead, dull sound, which is alone elicited when there is fluid. Altering the position of the trunk varied the line of dulness. At the lower third of the thorax, nothing could be heard except a blowing tubular breath-sound; there was over that area no vesicular breathing whatever. All the negative and positive facts told the story of effusion. The treatment was precisely the same as that adopted in the preceding case, and this patient made a speedy and full recovery. Her husband told me early in December, 1872, that she was very well.

CASE XIV. J. A., a man, aged 38, who had been a waiter in hotels, was admitted March 5th, 1872. He was sent to be put under my care by my friend Mr. Wallis of Hartfield, who had very correctly diagnosed effusion. The man confessed that he had not been the most temperate of individuals, but that latterly he had taken a less amount of stimulants. At a glance, it was evident that he laboured under some grave malady. I had received from Mr. Wallis a history of a low form of pleurisy, the symptoms of which tardily declined. On admission, he looked thin in the face, and the muscular system was a good deal reduced. On being stripped, the left shoulder was lower than the right, and the left side was full, rounded, and prominent, particularly at the middle third. His breathing was quick, the pulse a little over ninety, and exertion caused breathlessness. He could not lie on the right side, and only with discomfort on the left. The dulness ascended at the left back, quite up to the spine of the scapula. There was no dulness at this apex. The right chest was somewhat preternaturally resonant, except at the apex, where there was some dulness. The heart was pushed up under the right nipple, below which its impulse could be weakly felt. The stethoscope confirmed the opinion already formed by percussion and other facts of the case; but there was moist small crepitation of the right apex, and, though pleurisy had set up the effusive tendency, there was, it was feared, incipient tubercular mischief at the top of the right lung. The man's distress was very great, and, at the end of a week after his admission, I determined on paracentesis by means of the aspirator. My colleague Mr. Marsack operated, and ninety-three ounces of a greenish straw-coloured serum were withdrawn. He had a good night after the operation, and the next day he expressed himself as being very greatly relieved, as he felt his breathing easier, and he could in fact lie on the right side. At the end of three weeks, sixty more ounces were, by the cannula, taken away. From this time, he began to gain flesh, his looks improved, and the physical signs were far more natural. The moist crepitations at the right apex disappeared. Iodine was, in the manner I have before described, applied, and he took iron and quinine, and cod-liver oil, and was allowed six ounces of port wine a-day. He left the infirmary June 11th, giving promise of a full recovery. I saw him a few weeks afterwards; he had walked three miles, and he looked wonderfully better. On October 28th, 1873, I had again an opportunity of examining him. To my surprise, he was quite erect, without the least inclination to the left side. He had gained colour, and his face looked broader. When I desired him to strip, at a glance he had gained flesh. There was no bulging of the left side. He told me, as I was examining him, that he had taken no medicine for fifteen months, and that since February last he had been employed as a waiter at an hotel. He said he had felt no inconvenience whatever on the left side, and the fact of his having been in the employment which he described, was a sufficient proof that he could not have suffered from difficulty of breathing. I percussed him carefully. Some dulness remained in the lower half of the left chest, but it was not the absolute and characteristic dulness which denotes fluid, notwithstanding that the true pulmonary note could not be elicited. I regarded this loss of normal resonance as caused by adhesion and the organised depositions of lymph; and I shall hereafter point out how these thickenings by means of false membranes and organised deposits are sometimes considerable. The breath-sound could be faintly heard even low down. The heart occupied its proper place. There remained slight dulness at the right apex, with slight and sparsely scattered moist crepitation, and there was also a small cavity; but his gain of flesh and strength, easy breathing, his facial improvement and the physical signs, gave promise that full recovery of the left apex might eventuate, as we know that, in exceptional instances, a small cavity may become obliterated. The right lung would become less worked when it had relief afforded by the left organ resuming its functions: its chances of restoration became greater. It is quite conclusive from the case and sequents of this man, that tapping was of immense benefit, if it be not positively asserted that it saved his life.

Case xv. J. D., a little boy, aged 5, who first came under the care of the house-surgeon November 25th, 1871. He had, prior to this date, suffered from cough and pains in the chest. These symptoms became more urgent, and the physical signs indicated an attack of pleuro-pneumonia. There was dulness at the left inferior back, accompanied with moist crepitation and subdued friction sound. He recovered from the acute attack, but did not fully regain his former health. In the beginning of July, the house-surgeon requested me to again see the child. The little patient had been for some weeks from home. When I saw him, an abscess had formed externally at the costal angle, and over the fifth, sixth, and seventh ribs, there were in marked degree all the common physical signs of thoracic effusion, and it was evident that the rounded external swelling had communicated with the cavity of the chest. An opening was made at the most prominent part of this swelling, and a probe introduced, when an aperture was distinctly felt between the sixth and seventh ribs; seven ounces of thick creamy pus were drawn off (July 26th, 1871), and with very considerable relief. He was ordered the syrup of the iodide of iron and cod-liver oil. I last saw this little boy on December 14th; a fistulous opening still existed, but there was no dulness, and the breath-sound could be heard down to the base. He was directed to lie on the left side, and thus the cavity was daily emptied. The mother told me the quantity of matter had gradually become less.

Case xvi. I was requested, May 13th, 1872, to meet in consultation Dr. Day and Mr. Bisshopp, at Tonbridge, in the case of a young gentleman, Mr. V., aged 18, who for some time had been under the care of these gentlemen. This patient, prior to his illness, had been an unusually powerful and well-built youth, having taken seven prizes given for athletic sports at a public school. There was the history of acute pleuritic inflammation, which had been produced by a fall. At the time of my first visit, the patient was much reduced in flesh—he weighed only seven stones five pounds—was very anæmic, and looked very ill. He lay on his back, the abdomen was distended and resonant, and, on percussion and movement, it was evident that there was some effusion into the abdominal cavity. The skin was dry and harsh; pulse 90; tongue coated, and alvine dejections clay-coloured. Inspection showed the left chest to be preternaturally full and rounded; the intercostal spaces were wide and tense; the heart was displaced towards the right, and the physical signs gave unquestionable evidence of a large amount of fluid in the pleural cavity. Paracentesis by the aspirator was decided upon; Mr. Bisshopp performed the operation, and sixty ounces of greenish straw-coloured serum were withdrawn. He had a moderate dose of opium at bed-time, and he took a mixture with quinine and steel thrice daily, and a carefully selected diet was to be observed. The removal of the fluid relieved the breathing, and gave great relief. At the end of a fortnight, I was again requested to meet these gentlemen. Examination showed that the cavity still contained fluid. It was resolved to evacuate it, but not by means of the aspirator, because the use of that instrument required a greater length of time than the ordinary cannula; and, on the previous occasion, the patient was much fatigued by being so long kept in the erect position. The flattened cannula, with a piece of gutta-percha tubing, and the free end submerged in water, was introduced at the fifth interspace at the costal angle, when a pint of what seemed to be pure bright-coloured blood freely flowed out; the sanguineous character of the fluid then changed, and another pint of reddish serosity escaped; and thus, in the two operations, one hundred ounces of fluid were taken away. I saw this young gentleman twice afterwards with Dr. Day and Mr. Bisshopp, when gradual and decided improvement was manifest. The abdomen became reduced in size, nor was there any evidence whatever of any fluid remaining in the abdominal cavity. Percussion and the stethoscope proved the marked changes which had taken place in the thorax; the dulness had greatly declined, and the breath-sound, as evinced by coarse crepitations, could be heard almost at the base. The improvement continued, and my services were not again required. On December 30th, I had an opportunity of examining this young gentleman. The change in his appearance was so great that I hardly, at the first glance, recognised him. He was then an erect, powerful, and healthy-looking young man. He could leap and run, and was full of activity. Inspection showed that he had fully regained his former volume of flesh, and, at every aspect, the chest wells seemed symmetrical. The præcordial impulse was distinct at its normal site, and the tactile fremitus natural. Careful percussion could not detect a single patch of dulness; the true pulmonic note could be elicited at any point, and auscultation discovered no morbid sound whatever, except a slight amount of large and slightly moist crepitation at the base of the left lung. He told me that ten weeks after the last operation (August 1), and when he was considered to have greatly improved and to be gaining flesh, he then only weighed nine stones ten pounds, but when I saw him (December 30th), he weighed twelve stones and a half. This case, from having been one of very grave character, might be said to have ended in full recovery. Nothing could have been more satisfactory than the result of the two operations.

Case xvii. Mr. Manser of this town requested me, August 21, 1872, to see with him the son of a gentleman, a little boy, six years of age, who had empyema, and who had been operated upon by Mr. Manser's partner Mr. Marsack, a short time previously, when a considerable amount of seropurulent fluid was removed. When I saw the child, he looked emaciated and extremely ill. The pulse was quick, the breathing accelerated, and there was an unusual degree of nervous excitability. Examination showed the reaccumulation of a large quantity of fluid in the right side. Mr. Manser introduced the flattened cannula, and forty ounces of purulent matter were withdrawn. It was decided to keep the opening patulous, and this was done, for the time, by means of a piece of gum catheter being inserted and persistently kept *in situ*. Afterwards, a flattened silver cannular-formed tube, three-quarters of an inch long, with a button-head externally, was employed. The child every morning was turned on his side, and thus accumulation was prevented. He took the syrup of the iodide of iron and cod-liver oil, and was ordered a carefully regulated diet, and wine twice daily. I was desired to meet Mr. Manser again, December 5th. The improvement in the child was most manifest; he had gained flesh and colour, and in all respects seemed much better. The physical signs bore testimony to the more obvious indications of amendment. Inspection showed some contractions of the right thoracic parietes; comparatively little dulness remained, and this was at the base. The heart's impulse was easily felt at the normal position, and tactile fremitus was distinct at the right back. Coarse crepitation could be heard almost at the base. It was agreed to apply the iodine over nearly the entire left thoracic surface, in the proportion of one-tenth of the tincture and nine of water, and by means of the half waistcoat. Mr. Marsack and Mr. Manser had very properly recommended that he should pass the winter and spring at St. Leonard's. His future progress was most satisfactory.

Case xviii. The house-surgeon, Dr. Hall, desired me, in November 1871, to see with him a little boy, six years of age, then an out-patient of the infirmary. Dr. Hall had attended him for an attack of pleuro-pneumonia, the acuter symptoms of which he passed through favourably; but considerable dulness remained in the left chest. Examination left no doubt as to the existence of effusion. It was deliberated upon, whether paracentesis should not at once be performed. He was a strongly-made child, with well developed muscular system, and it was finally determined to first try the effects of absorption. The diluted application of iodine, by means of the half waistcoat, was had recourse to, and he was put on iron, quinine, and cod-liver oil, and strictly ordered to be kept warm and quiet. The dulness gradually disappeared, the air again descended into the left chest, puerile respiration returned where only distant tubular breathing had been heard, and he made a full recovery. He left Tunbridge Wells several months ago, and on making inquiries on December 14th, I was told that he was quite well.

[*To be continued.*]

REPORT
OF THE
COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

V.—Antagonism between Sulphate of Atropia and Meconate of Morphia. *(Concluded.)*

B.—*On Dogs.*

Dr. John Harley[*] narrates various experiments made on dogs, "on the combined action of morphia and atropia"; but he does not appear to have given fatal doses of acetate of morphia. The conclusions at which he arrives are as follows.

"*Conclusions.*—I. In the dog, belladonna, when administered simultaneously with opium, more or less completely prevents nausea and vomiting; and, when given previously, entirely prevents these effects. II. Whether given previously, simultaneously, or subsequently, atropia completely counteracts the respiratory restraint on the free action of the heart, which is so prominent an effect of the operation of opium. We can wish for no more perfect an illustration of the beneficial influence of a medicine under suitable conditions than that afforded by the simple and direct action of atropia in relieving the impending syncope which often persists for many hours after a dose of opium. At first, the cardiac systoles are doubled, but a regular expiratory pause remains. During the next sixty or ninety seconds, the systoles become stronger and each one distinctly perceptible to the finger; and at the end of this time the inspiratory intermissions cease, and no trace of their presence remains. The effect is even more marked under the influence of the combined action of morphia and thebaia. III. While the special effects of opium on the muscles of organic life are thus counteracted by the stimulant action of atropia on the sympathetic, the cerebral and anæsthetic effects are intensified and prolonged by belladonna, and hypnosis is converted into narcosis. IV. On the other hand, all the effects of atropia, excepting perhaps the influence on the heart, are increased and prolonged by opium, and the cerebral effect in particular; the insomnia which results from excessive doses is converted into narcotism, or a mixture of narcotism and delirium. V. The simultaneous action of opium retards the evacuation of urine, but in no degree interferes with the elimination of atropia by the kidneys."

After an analysis of, and critical remarks on, twenty-one cases of "opium-poisoning treated by belladonna", Dr. Harley[†] writes as follows.

"*Conclusions.*—1. That the evidence of antagonism in any given case is inconclusive. 2. Taken individually or collectively, the cases show that belladonna has no influence whatever in accelerating the recovery from the poisonous effects of opium. 3. That somnolency, stupor, narcotism, and coma—the essential effects of the action of opium—are both intensified and prolonged by the concurrent action of belladonna. 4. That belladonna is powerless to obviate the chief danger in opium-poisoning; viz., the depression of the respiratory function. 5. That the results of the combined action of opium and belladonna are the same, whether given in medicinal or toxical doses. While, therefore, belladonna cannot in any sense be regarded as an antidote against opium, but in large doses the exact reverse, it may, under certain conditions mentioned below, and always in very small doses, be used in conjunction with other remedies as a means of aiding the recovery." [The "conditions" to which Dr. Harley alludes are, to give "1-96th of a grain of sulphate of atropia at intervals of two hours, to stimulate the failing power of the heart".]

The views of Dr. Harley are not quite in accordance with those of Mitchell, Keen, and Morehouse,[‡] who write as follows.

"The foregoing experiments and observations authorise us, we think, to draw the following conclusions as to the use of hypodermic injections, and as to the antagonism of atropia and morphia.

"1. Conia, atropia, and daturia, have no power to lessen pain when used subdermally.

"2. Morphia thus used is of the utmost value to relieve pain, and is most potent, in certain forms of neuralgia, the nearer it is applied to the seat of the suffering.

"3. Morphia lowers the pulse slightly, or not at all. Atropia usually lowers the pulse a few beats within ten minutes, and then raises it twenty to fifty beats within an hour. The pulse finally falls about the tenth hour below the normal number, and regains its healthy rate within twenty-four hours.

"4. Morphia has no power to prevent atropia from thus influencing the pulse; so that, as regards the circulation, they do not counteract one another.

"5. During the change of the pulse under atropia, the number of respirations is hardly altered at all.

"6. As regards the eye, the two agents in question are mutually antagonistic; but atropia continues to act for a much longer time than morphia.

"7. The cerebral symptoms caused by either drug are to a great extent capable of being overcome by the other; but, owing to the different rates at which they move to affect the system, it is not easy to obtain a perfect balance of effects; and this was made the more difficult from the fact already mentioned, that atropia has the greater duration of toxic activity.

"8. The dry mouth of atropia is not made less by the coincident or precedent use of morphia. Atropia does not constipate, and may even relax, the bowels; morphia has a reverse tendency.

"9. The nausea of morphia is not antagonised or prevented by atropia.

"10. Both agents cause dysuria in certain cases, nor is the dysuria occasioned by the one agent relieved by the other.

"11. Atropia has no ability to alter or lessen the energy with which morphia acts to diminish sensibility or relieve the pain of neuralgic disease.

"12. As regards toxic effects on the cerebral organs, the two agents are mutually antidotal; but this antagonism does not prevail throughout the whole range of their influence, so that, in some respects, they do not counteract one another; whilst, as regards one organ—the bladder—both seem to affect it in a similar way."

The conclusions of the American physicians are, in certain points, opposed to those of Harley. Five experiments were therefore made on dogs, in which what was regarded as a fatal dose of meconate of morphia was given, and immediately afterwards varying doses of sulphate of atropia.

Experiment 375. Male Scotch terrier, weighing 12 lbs. Diameter of the pupil transversely, 12-50ths of an inch. While the animal was sitting quietly on the table, the respirations and cardiac pulsations were counted for sixteen minutes—one observer counting the respirations, another the cardiac pulsations, while a third noted down the figures at the end of each minute, with the following results.

Table XXXI.—*Showing the number of the Respiratory Movements and Cardiac Pulsations of a Dog, not affected by Sulphate of Atropia.*

Time.	Respirations per minute.	Cardiac Pulsations per minute.	Time.	Respirations per minute.	Cardiac Pulsations per minute.
1 minute	30	120	9 minutes	31	123
2 minutes	30	121	10 ,,	31	121
3 ,,	29	123	11 ,,	30	121
4 ,,	30	124	12 ,,	31	121
5 ,,	29	120	13 ,,	31	122
6 ,,	30	122	14 ,,	30	120
7 ,,	30	122	15 ,,	30	120
8 ,,	30	122	16 ,,	30	120

These figures show tolerable regularity in the respiratory movements and cardiac pulsations. As is frequently the case in dogs, the cardiac action was somewhat intermittent, but the average number of systoles per minute was nearly constant. Two grains of the meconate of morphia dissolved in twenty-eight minims of water were now injected under the skin of the back. The respiratory movements and cardiac pulsations were then counted in the same way for forty minutes with the following result:

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[*] Dr. John Harley, *Old Vegetable Neurotics*, p. 269, c. vii.

[†] Dr. John Harley, *ut supra*, p. 309.

[‡] Mitchell, Keen, and Morehouse, "On the Antagonism of Atropia and Morphia, founded upon Observations and Experiments made at the U.S.A. Hospital for Injuries and Diseases of the Nervous System". (*The American Journal of the Medical Sciences*, new series, vol. L. Philadelphia, 1865, p. 67, *et seq.*)

TABLE XXXII.—*Showing the Effects of the Action of Meconate of Morphia on the Respiratory movements and Cardiac Pulsations of a Dog.*

Time after the administration of the drug.	Respirations per minute.	Cardiac pulsations per minute.	Remarks.
1 min.	30	120	
2 ,,	30	120	
3 ,,	29	118	Vomited food.
4 ,,	28	117	
5 ,,	28	114	
6 ,,	27	112	
7 ,,	27	111	
8 ,,	24	110	Pupil 6-50ths of inch.
9 ,,	22	108	
10 ,,	23	102	
11 ,,	22	100	
12 ,,	22	95	Pupil 5-50ths of inch.
13 ,,	20	98	
14 ,,	26	95	
15 ,,	20	90	
16 ,,	20	90	
17 ,,	18	86	
18 ,,	18	84	
19 ,,	18	83	Now deeply narcotised.
20 ,,	18	83	
21 min.	18	82	
22 ,,	17	82	
23 ,,	17	83	
24 ,,	16	83	Pupil 5-50ths of inch.
25 ,,	16	84	
26 ,,	16	84	
27 ,,	16	83	Pulsations were now very feeble.
28 ,,	17	84	
29 ,,	18	84	
30 ,,	18	84	
31 ,,	19	84	Pupil 4-50ths of inch.
32 ,,	18	83	
33 ,,	18	83	
34 ,,	18	79	
35 ,,	17	76	
36 ,,	16	75	
37 ,,	16	74	Pupil 4-60ths of in.
38 ,,	16	72	
39 ,,	14	72	
40 ,,	14	72	

The cardiac pulsations now became so feeble that they could not be counted with accuracy. The respiratory movements were deep and prolonged. The animal was deeply narcotised. Reflex movements were made on touching the eyelashes or the conjunctiva, but there were none on pinching the legs or tail. Fæces were passed involuntarily. There was very little moisture about the mouth. There were slight jerks occasionally of the muscles of the back. The dog continued in this state for four hours, when it began slowly to recover. It recovered entirely. For twenty-four hours it appeared to be feeble in its hinder limbs. Three days afterwards it was quite lively. The dose was nearly, but not quite, a fatal one. Noboby seeing the dog three hours after it had received the two grains of meconate of morphia would have believed in its recovery.

Eight days afterwards it was again subjected to experiment. It then weighed 11½ lbs. The pupil measured 7-50ths of an inch. The respirations and cardiac pulsations were taken during a period of ten minutes. They were found to average—respirations, twenty-eight per minute; cardiac pulsations, one hundred and thirty-two per minute. Two grains and a half of meconate of morphia and one-twelfth of a grain of sulphate of atropia were then simultaneously injected under the skin of the back. Two assistants counted the number of the respiratory and circulatory movements separately, while a third noted the figures down at the end of every minute. This was done for sixty minutes, with the following result. (See Table XXXIII.)

This table shows that (1) the respirations became fewer in number, deeper, and more prolonged; (2) the cardiac pulsations were much increased in number, and they were for a time very powerful, but afterwards they became so weak as scarcely to be felt; and (3) the pupil became contracted, but not nearly to the same extent as would have been produced by the meconate of morphia alone. These results indicate a mutual action between the meconate of morphia and the sulphate of atropia. Meconate of morphia, when given alone, depresses both the cardiac pulsations and the respirations, and contracts the pupil. Sulphate of atropia, when given alone, slightly depresses the respirations, greatly accelerates the cardiac pulsations, and dilates the pupil. When both are given together, as in this experiment (Table xxxiii), the respirations were reduced in frequency, indicating a preponderance in the effect of meconate of morphia; the cardiac pulsations were increased, indicating a stimulant action on the heart produced by the sulphate of atropia; and the pupil was slightly contracted, indicating that, with respect to this structure, there was nearly a balance as regards physiological effect between the two substances, but the influence was in favour of the meconate of morphia. It is also to be observed that the acceleration of the cardiac pulsations was not nearly so great when both substances were exhibited, as when sulphate of atropia, even in smaller doses, was given alone (see remarks on the physiological action of sulphate of atropia on dogs, JOURNAL, October 24th, page 519).

The dog in this experiment died at the end of three hours and a half. It gradually became more and more deeply comatose. There was no evidence of any delirium. Reflex action gradually became more and more feeble; the respiratory movements were fewer and more and more shallow; the cardiac pulsations became so weak as scarcely to be felt, but they were still rapid, and at last the animal died without any convulsive seizure. The lungs were much congested, and there was fluid in the pleura.

TABLE XXXIII.—*Showing the Effect of the Simultaneous Action of Meconate of Morphia and Sulphate of Atropia on the Respiratory Movements and Cardiac Pulsations of a Dog.*

Time after the administration of the drugs.	Respirations per minute.	Cardiac pulsations per minute.	Remarks.
1 min.	28	140	
2 ,,	28	142	
3 ,,	26	143	Vomited.
4 ,,	26	145	
5 ,,	25	150	
6 ,,	24	160	Pupil 6-50ths of in.
7 ,,	25	170	
8 ,,	24	176	
9 ,,	23	180	
10 ,,	22	186	Respirations somewhat intermittent.
11 ,,	20	192	A long and deep inspiration every 5th or 6th time.
12 ,,	18	199	
13 ,,	16	205	
14 ,,	15	204	Cardiac pulsations full and bounding.
15 ,,	15	204	
16 ,,	14	207	
17 ,,	15	209	Pupil 5-50ths of in.
18 ,,	16	210	
19 ,,	14	212	
20 ,,	15	219	Pupil 5-50ths of in.
21 ,,	15	225	
22 ,,	15	230	
23 ,,	14	236	
24 ,,	15	243	
25 ,,	15	243	Pupil 4-50ths of in.
26 ,,	15	250	
27 ,,	15	250	Reflex action much weaker.
28 ,,	15	250	
29 ,,	18	250	
30 ,,	17	246	Pupil 4-50ths of in.
31 min.	15	246	
32 ,,	15	243	Cardiac pulsations not so strong
33 ,,	15	244	
34 ,,	16	245	
35 ,,	17	249	Pupil 4-50ths of in.
36 ,,	18	247	
37 ,,	15	246	
38 ,,	16	246	
39 ,,	15	246	
40 ,,	15	245	Pupil 4-50ths of in.
41 ,,	16	240	
42 ,,	17	240	Defæcation.
43 ,,	18	238	
44 ,,	17	240	
45 ,,	16	236	Pupil 4-50ths of in.
46 ,,	14	236	
47 ,,	14	235	Cardiac pulsations feebler.
48 ,,	14	235	
49 ,,	15	234	
50 ,,	15	234	Pupil 4-50ths of in.
51 ,,	14	234	
52 ,,	14	237	
53 ,,	15	236	
54 ,,	14	235	
55 ,,	15	235	Pupil 4-50ths of in.
56 ,,	12	240	Respirations deep and prolonged; cardiac pulsations so feeble that they could scarcely be counted.
57 ,,	15	236	
58 ,,	15	236	
59 ,,	15	235	
60 ,,	16	231	

Experiment 376. As it appeared that the animal in the last experiment died from the effects chiefly of the meconate of morphia, it was repeated in a dog of nearly the same weight (11¾ lbs.), giving the same dose of meconate of morphia (two grains and a half), together with a dose of a quarter of a grain of sulphate of atropia. After the usual phenomena, the animal died in six hours. It was observed in this case that the effects of the presence of sulphate of atropia were more apparent than in Experiment 375. The pupil was more dilated, and the cardiac pulsations were for a longer time more rapid and more strong. Still, the animal seemed to succumb to the effects of coma. There were no twitchings nor convulsions.

Experiment 377. A third dog, 12 lbs. weight, received with the same dose two grains and a half of meconate of morphia and one third of a grain of sulphate of atropia. This animal also died at the close of eight hours and a half, and in the same condition of profound coma as in the last two experiments. It was observed that during the first hour, after the simultaneous injection of the two substances, the animal was more wide awake than in the preceding experiments. It tried to sit up, and it looked from side to side, rocking its head in the manner previously observed in a dog after a large dose of sulphate of atropia. This state gradually merged into that of deep coma, from which it was never roused.

Experiment 378. A fourth dog, weighing 14 lbs., received two grains and a quarter of meconate of morphia, together with two-thirds of a grain of sulphate of atropia. This animal continued in a deep stupor for six hours and a half, when it slowly began to recover. The usual phenomena were exhibited throughout the case, with the exception that, during the first two hours, it was evidently in a state resembling delirium. It tried to rise, and rocked its head to and fro. It apparently was not conscious of vision, because, when a rod was held near the eye, it knocked its head against it. This condition, as in Experiment 377, merged into coma, from which, however, the animal recovered.

It was important to ascertain whether or not, in this instance, the dose of meconate of morphia given was, without the influence of the sulphate of atropine, a fatal dose. Accordingly, the animal was kept for ten days, and regularly fed. At the end of that time, it was in good condition, and weighed 13 lbs. The same dose of meconate of morphia, namely, two grains and a quarter, was then given. The animal, about the end of the first hour after the injection of the dose, was in a comatose condition, from which it did not recover. It remained comatose for ten hours, the coma gradually becoming more and more marked.

Experiment 379. The last experiment was so important that it became necessary to repeat it in as nearly the same conditions as possible. A mongrel terrier dog, weighing 13¾ lbs., had simultaneously injected under the skin of the back two grains and a quarter of meconate of morphia and two-thirds of a grain of sulphate of atropia. During the first three hours, it was apparently under the influence chiefly of the sulphate of atropia, inasmuch as the pupil was more dilated than at first, the heart beat more quickly, and the animal rocked its head about in the way characteristic of the action of sulphate of atropia. This condition, as in the former instances, merged into a comatose state, from which, however, the animal recovered. The animal was kept for ten days. At the end of that time, it received the same dose of meconate of morphia (two grains and a quarter). It became comatose in an hour and a quarter, and it was found dead ten hours thereafter. It died with all the symptoms of poisoning by morphia.

These experiments are shortly summarised in the following table:

TABLE XXXIV.—*Showing the Influence of Sulphate of Atropia on a Fatal Dose of Meconate of Morphia in Dogs.*

No. of Experiment.	Weight of Dog.	Dose of Meconate of Morphia in grains.	Dose of Sulphate of Atropia in grains.	Result.	Remarks.
375	12 lbs.	2½	1-12th	Died in 3½ hours	Congestion of the lungs
376	11¾ lbs.	2½	1-6th	Died in 6 hours	Atropia symptoms more marked; died in profound coma
377	12 lbs.	2¼	1-3rd	Died in 8½ hours	Ditto ditto
378	14 lbs.	2¼	2-3rds	Comatose for 6 hours; Recovered	Got same dose of meconate of morphia 10 days afterwards, and died
379	13¾ lbs.	2¼	2-3rds	Recovered	Got same dose of meconate of morphia 10 days afterwards, and died.

It appears from the above experiments, that in dogs sulphate of atropia modifies the symptoms of poisoning by meconate of morphia, diminishes their intensity, and may even save life after a fatal dose of the latter. It is therefore decidedly antagonistic, but within a limited area. In man, sulphate of atropia would be too dangerous and uncertain a remedy to depend on in cases of poisoning by opium or any of its salts, but where the heart's action is greatly diminished it is directly indicated.[*]

[*To be continued.*]

ON CONICAL CORNEA, AND ITS TREATMENT BY OPERATION.[†]

By JOHN A. NUNNELEY, M.B.Lond.,
Senior Ophthalmic and Aural Surgeon to the Leeds General Infirmary, etc.

THE comparative frequency, and the usually unsatisfactory nature, so far as treatment is concerned, of conical cornea, has induced me to bring before the Society a case, in which a somewhat recently introduced plan of operation was adopted with a more satisfactory result than is usually obtained in this troublesome disease. I regret that I have been unable to obtain the attendance here to-night of the patient; she was seen, however, by several members of the Society while in the hospital. Perhaps the best idea of the difficulty of relieving conical cornea will be furnished by an enumeration of the principal among the many operations, etc., which have been suggested and carried out for its relief.

Repeated tapping of the aqueous chamber, with or without compression, has been resorted to to a very considerable extent, with, in the hands of English surgeons, usually negative results; French ophthalmologists, especially Desmarres and Desmours, however, speak of this plan, combined with careful and graduated compression of the eye, more favourably; in those cases, however, which have been benefited by this proceeding, the treatment has been much more prolonged than most patients here would submit to, I think.

Removal of the lens was many years ago suggested and practised by Sir William Adams, with the obvious purpose of counterbalancing the increased refractive power of the conical cornea; this was unsatisfactory, and appears to have been soon abandoned. Mr. Tyrrell appears to have been the first to recommend the alteration in shape and position of the pupil, so as to remove it from beneath the centre of the cornea, or that part which has its figure the most changed, to nearer the margin, where the rays of light are less refracted; the making an artificial pupil, in fact, by iridectomy; and this is the plan which has been the most frequently adopted, and been, on the whole, the most successful. It was pointed out by Von Graefe that, under these circumstances, the iridectomy answers a double purpose: 1st, by removing the pupil to a part of the cornea where the refraction is less, and, 2nd, by lessening the ocular tension, and so tending to arrest the progress of disease. In a paper in the *Royal London Ophthalmic Hospital Reports* for October 1859, Mr. Bowman recommended Mr. Critchett's operation of iriddesis for conical cornea, and showed that, by a double operation, one on each side of the cornea, reducing the pupil to a slit-like form, either horizontally or vertically, according to circumstances (usually the latter, as being more sightly), greater improvement to sight might be obtained than by any method previously tried. Von Graefe suggested another plan which has been in many cases advantageous, and which I have adopted on many occasions; viz., to produce ulceration of the apex of the cone, and, by the subsequent cicatrisation and contraction of this, obtain a flattening of the cornea; an indelible opacity remains, of course, in the centre of the cornea, and the position of the pupil has to be altered either by iridectomy or by iriddesis.

The operation which I performed in the present case is one which has lately been several times done. It consisted in the removal of an elliptical portion from the most prominent part of the cornea, and carefully bringing the edges of the wound together by sutures. By this means, a simple linear cicatrix is obtained, the opacity of which, if the wound heal well, disappears to a wonderful extent.

Alice Scott, aged 16, a domestic servant, was admitted into the General Infirmary on May 17th, 1873. Her general health, aspect, and habits were good. Four years ago, she had scarlet fever, and from that time dates the commencement of her disease. She had lately not been able to see much with the left eye, the cornea of which was extremely conical, the apex of the cone being abraded and slightly opaque. The cornea of the right eye was also markedly conical, but to a somewhat less extent.

On May 18th, the following operation was performed on the left eye under chloroform. Two very fine curved needles threaded with very fine silk were inserted through the most prominent part of the cone, but not drawn through. In front of these needles, a small elliptical piece of cornea was removed by a long fine Von Graefe's knife and forceps. The needles were then drawn through, and the edges of the wound of the cornea thus made were brought together as accurately as possible. The lids were securely closed, and gentle pressure kept up outside; the patient was kept in bed.

May 19th. She had little or no pain.

May 21st. The anterior chamber had nearly refilled; there was very little inflammation.

May 22nd. Under chloroform, the stitches were removed. The corneal wound was perfectly healed, and the anterior chamber entirely refilled.

May 25th. She was allowed to get up.

May 31st. With the left eye, she could read No. 16 Jäger, while previously she could only distinguish quite large objects. She was made an out-patient. She was readmitted on June 29th, 1873.

July 4th. The same operation was performed on the right eye.

July 26th. She could read No. 10 (Jäger) without glasses, and the sight was not improved by either concave or convex (spherical) glasses.

August 23rd. She could read without glasses, with the right eye, No. 10; with the left eye, No. 6. With concave cylindrical lenses, and with the right eye —2½, the axis of cylindrical curvature being perpendicular, she read easily No. 4 (Jäger); with the left eye, with —5½, the axis being placed horizontally, she read No. 3.

I am aware that the use of stitches, as in the above case, has by some surgeons been thought unnecessary; after, however, operating several times with and without them, I am satisfied that the risks are lessened, and that the best results have been obtained in these cases, where the plan above described has been followed, because the needles prevent much of the risk to the parts beneath the cornea during the operation, or any injury being done by the removal of the support of the cornea; but especially, the edges of the wound being brought together, it much sooner heals, and a single line of cicatrix is left, the opacity of which disappears in many cases almost entirely.

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[*] In experiments Nos. 376, 377, 378, and 379, the number of cardiac pulsations and respiratory movements were not counted nor the pupil measured, as the object was to see whether or not life could be saved after a fatal dose of meconate of morphia.

[†] Read before the Leeds and West Riding Medico-Chirurgical Society.

ON OPERATIONS FOR THE RADICAL CURE OF HERNIA.*

By CHARLES STEELE, F.R.C.S.,
Surgeon to the Bristol Royal Infirmary.

[After briefly referring to the various methods which have been suggested and tried for the radical cure of hernia, and the amount of success and danger stated to have attended each, Mr. Steele remarked that, of all these operations, the two which have most obtained support from the profession are Wutzer's and Wood's; that the former has greatly fallen into disuse, in consequence of want of permanent benefit in many cases, and because, when it does fail, it leaves the orifice larger than before; and that the latter, though highly successful in its author's hands, has been fatal to several patients in the practice of other surgeons. Now that trusses are made so scientifically to fit and support, it is unjustifiable to perform an operation which is attended with much risk to life; at the same time, when good prospect of permanent success, with but little risk to life, is offered by operation, it is right to endeavour to save patients from the life-long trouble of wearing a truss, especially as the existence of a hernia disqualifies men from certain services and duties.]

George Barwell, aged 8, was admitted, under my care, into the Bristol Royal Infirmary in May 1873, with large congenital inguinal hernia of the left side, for the radical cure of which by operation his parents had four years before been advised to bring him to the infirmary when he reached the age of eight years. Having had some cases of union by first intention in operations for strangulated hernia, when Lister's dressing was used, I had regretted that I had not stitched the pillars of the rings together with carbolised gut, and thus probably prevented the return of the hernia. Acting on this idea, I operated on this boy in the following simple manner. I made an incision, an inch and a half long, parallel to and between the pillars of the external ring, and dissected down carefully till the pillars were clearly exposed. I endeavoured to roughen their edges by scraping them with the scalpel, and then introduced two catgut sutures at a fair distance from the margins, laying the needle flat against the inner surface of the tendinous tissue, to avoid wounding the peritoneum (both rings being drawn close together, owing to the long duration of the hernia), and tied these ligatures firmly, leaving room for the spermatic cord, cut the ends off close, and then united the skin with the same material and applied the carbolised dressing. The whole operation was performed under the carbolic acid spray. No pyrexia, peritonitis, or bad symptom, followed; slight tenderness only in the wound was felt. The child did well; the deep parts united firmly, the superficial granulated; and, after a week, simple ointment was substituted for the former dressing. All was healed in three weeks. The boy was kept in bed as a precaution for a week longer, then allowed to get up, and soon afterwards to return home to the country, where for six months, without a truss or any support, he played about freely without any recurrence. He was brought up meantime every month for inspection, on each of which occasions the parts were found quite firm and sound. But, at the end of six months, owing to some unusual exertion, a sudden descent and strangulation took place, and the boy was brought to the infirmary. On examination, the scrotum was seen to be enormously distended, quite four times as large as with the original hernia. It seemed as if all union had given way, and much more intestine than before had been forced through the opening. But, by palpation, I found that the scrotum was full of serum suddenly exuded through pressure on the veins of the cord by a sudden strangulation of the intestine, which proved to be a very small portion. I tapped and drew off the fluid, and, the intestine being returned, the symptoms ceased; yet, during successive days, the gut descended and opened up the orifice to nearly its former size.

My colleagues fully approved of my proposal to repeat my operation, as the case had done well for so long a time; and I accordingly operated as before, introducing three sutures instead of two, and leaving the cord a less free channel. All healed, as on the former occasion, with no bad symptom; but, when the external wound was quite well, I applied a truss with a flat India-rubber pad, and desired that it should be always worn until I ordered its discontinuance. I learned by my former overconfidence to give time for effused lymph to become firmly organised.

It is now a year since the second operation. The boy was examined last week, after being without the truss for a day; no impulse could be felt; the deep union was firm, and the boy felt the part well supported. While I say that I thought out and performed this operation as an original matter, I do not assert that I originated the operation; in fact, it seems to me the most likely measure to suggest itself to any surgeon's mind when considering the subject, and I dare say several have performed it. On subsequent search, I find that Professor Gross, in his excellent *System of Surgery*, states that, in 1858, in a case of ventral hernia, he made a direct incision, pared the edges, and united the deep parts by silver wire-sutures, and the case did well; also that, in 1861, he performed a similar operation in a case of old scrotal hernia, and that, though a sharp attack of erysipelas followed, the result was satisfactory.

GENERAL OBSERVATIONS UPON THE MEDICINAL EMPLOYMENT OF FREE PHOSPHORUS.*

By J. ASHBURTON THOMPSON,
Surgeon at King's Cross to the Great Northern Railway Company; Surgeon-Accoucheur to the Royal Maternity Charity; etc.

I ask your permission to make one or two prefatory remarks. Since the time which can be allotted to readers on such occasions as this is necessarily short, those who have the honour to address you on a comparatively novel subject can do little more than offer some of the conclusions, at which they believe they have arrived, for your consideration. For that reason, it will be well that the grounds on which the following remarks are founded should first be briefly stated. My experience of phosphorus is literary and clinical. As to the former, I have occupied the leisure of some months in tracing the history of its use in medicine through the two hundred years which have elapsed since it was first isolated and recognised as an element; and this has involved the perusal of about two hundred and fifty works, papers, and items; in addition, I have been favoured with several valuable private communications. As to the latter, I have now given phosphorus, in nearly every form in which it ever has been administered internally, to several hundred individuals. Some of these were suffering from chronic, some from acute diseases; while others were practically in a fair state of health. My observations have been directed specially to three points: to ascertaining the best formula, pharmaceutically or therapeutically speaking, for use; the action of the drug on the body in health; and its powers in disease. On these grounds, I venture to address you to-day. In addition, I wish to say that, should any opinion fall from me couched in terms dogmatic, the exigency of time is alone answerable for the form of words employed; I offer these remarks entirely as propositions for discussion, to be subsequently agreed to if that may be. If this be borne in mind, much circumlocution may be spared and time saved.

I. Strictly according to the mode in which free phosphorus is administered, it acts on the human body in these three different ways: as a stimulant, as a tonic, and as a poison. With the last named action, the physician is not immediately concerned, save in so far as the premonitory symptoms of poisoning go; on these, I shall not have the opportunity of speaking on this occasion. I propose to consider the therapeutic—that is, the stimulant and the tonic actions only; and these I shall illustrate by occasional reference to two conditions typical of most of those in which phosphorus is a useful remedy—the typhoid state, and brain-softening.

a. These are the effects of a stimulant dose of phosphorus, developed by repetition to their fullest extent. Within a few minutes the pulse rises, and becomes fuller, but not firmer. The temperature rises; a general sensation of warmth overspreads the body; the face flushes; and the skin, which may become the seat of much itching and irritation, perspires freely. According to Professor Gubler, there are signs of peripheric capillary expansion; and in consequence, if this action be maintained, the temperature falls—according to the same author—three or four degrees. The urine is secreted in unusual quantity; it becomes reddish and loaded, and it may acquire a peculiar smell—of violets or of sulphur, and occasionally it has been seen to become phosphorescent. The appetite generally becomes ravenous, although a slight sensation of nausea may be felt after the first dose. In the nervous system, there is a general sharpening of the faculties, relief from fatigue; sensations of cheerfulness and of well being. Sometimes, nervous excitement is shown by hesitation and trembling of the muscles, or even slight clonic convulsions. Occasionally, there is some venereal ardour; and, still less frequently, increased tactile sensibility.

It is proper to seek the aid of the stimulant properties of phosphorus, in preparation for unusual efforts of mind or body; to relieve from the effects of such exertion; and as a remedy for the typhoid state, whether that ensue on specific fevers or on other acute diseases. Given in the

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

same manner, it is pre-eminently useful in calling forth the rash in the exanthematous diseases when that has been delayed, is imperfectly developed, or has retrograded. These powers of phosphorus also afford the best means of attacking certain forms of neuralgia; specially those which occur suddenly in persons otherwise in good health, and apparently as the result of the local application of cold; and those which attend upon the asthenic condition, more especially if it ensue upon hæmorrhage or lactation. The latter forms may almost certainly be removed in this manner in the course of a few hours—a space of time far too short to allow of any material modification in the presumed cause, or at least the predisposing condition.

Phosphorus is a stimulant, possessed of special powers over the nervous system, which is, perhaps, affected primarily through the capillary circulation in closest connection with it.

β. Phosphorus acts as a tonic when it is given in small doses, repeated at regular intervals, and continued over long periods of time. But it is a special tonic, still acting in the first place on the nervous system and on the circulation, and affecting the body at large through them. The elaborate and valuable observations of Dr. Willis E. Ford (of which, however, he has, as yet, only published an abstract) show that in fifteen cases of dementia a tonic treatment with phosphorus, continued during a month, did impart tone to the circulation as observed with the sphygmograph, and served to maintain the temperature (which had previously varied from a half to three-fourths of a degree at different times of day) at the normal standard. These observations were made three times daily, and were compared with similar observations made during one month before treatment. The same sensations of well-being already referred to, generally make their appearance during this kind of treatment too; but, as might be expected, they do not occur so soon, nor are they so well marked. It has recently been asserted that persons who have taken phosphorus in this way for some time become so much better—so much more comfortable, happy, cheerful—that they are with difficulty persuaded to leave it off; that, in fact, a new kind of dram-drinking might be thus introduced, of which we do not know the consequences. Such a result has not, as yet, come under my notice, even when the drug has been given to persons who did not absolutely require it—still less, when given to those in whom the element was presumably wanting; and I think it probable that the occurrence of this symptom stands in evidence that the dose employed was either so large absolutely, or so large in relation to the individual, as to be, in fact, a stimulant dose.

The further effects of phosphorus, administered as a tonic, are not easily described but with reference to particular diseases. I shall, therefore, refer to some of those in which the drug, thus used, exhibits a special power. For there is some evidence that, besides causing the above described effects, phosphorus has a special property, not only of restoring exhausted nerve functions, but even of renovating or rebuilding altered nerve-matter. I will briefly recapitulate the evidence on this point. If it could be demonstrated, not only that certain diseases or conditions absolutely diminish the amount of phosphorus-compounds in the brain, but that the due proportions could be restored by the introduction of free phosphorus to the stomach, then the propriety of administering the drug in those diseases would be indicated with a precision almost mathematical. But this is not possible; and it is, therefore, from certain other facts that the indication is inferred.

The increased excretion of phosphatic salts in the urine under circumstances of long continued or extraordinary mental exertion, whether that be the result of anxiety or of intellectual occupation, points to the transformation of the phosphorus-compounds within the body as a necessary concomitant of activity of the brain. It is from that constituent of brain-matter named "protagon" by Leibreich and Rayer, that the various phosphorus-holding fats may be extracted; and it is in that constituent that the exhausted brain, and the brain softened after long continued over-exertion, is deficient. Thus, that which exhausts the brain deprives it of its phosphorus; and, similarly, the immature brain of childhood, the degenerating brain of old age, and the undeveloped brain of the imbecile, are all deficient in phosphorus as well as in power. Conversely, that which deprives the body of phosphorus exhausts the intellectual powers. Thus, semen containing a large amount of phosphorus, in spermatorrhœa mental, as well as physical debility, is a striking symptom.

Under these circumstances, phosphorus being deficient in the nerve-matter, can the want be supplied by introducing the element in the free state to the digestive organs? The answer to this question must be gathered entirely from clinical observations; and it must, therefore, suffice at this time to state that free phosphorus is now generally acknowledged to be the remedy *par excellence* for conditions known as of brain exhaustion, for example; and that it is the most useful medicine at command in the debility which attends on spermatorrhœa.

But, even more than this, Dr. Hammond, in his work on *Diseases of the Nervous System*, regards phosphorus, used in the small tonic dose under consideration, as the most valuable drug in the treatment of *softening* of the brain ensuing on its over-exertion. He gives, in his work already referred to, two examples out of many, remarkable for the perfect recovery attained.

I have thus occupied your time in indicating—briefly and imperfectly without doubt, but to the best of my knowledge—the facts in favour of the assumption that by putting free phosphorus into the stomach the formation of organic phosphorus compounds is favoured, because it appears to me to rest at first sight on reasoning too *physical* to be unhesitatingly accepted. If it be granted that part of the metalloid thus ingested goes directly to the formation of nerve-matter, and part of it to improve the quality of the blood of which phosphorus is a constituent, an important question is at once indicated. If these parts of the body already contain a normal proportion of the element, what, then, becomes of fresh portions supplied to them? Are they simply rejected and excreted? I believe not; I am of opinion that the stimulant action of the same quantity of phosphorus administered in a series of cases, will be found to depend for its development, to a certain extent, upon the greater or less want which exists for the element in the individual. This opinion has some bearing upon the idiosyncratic intolerance of phosphorus which is said by some writers to be occasionally met with. I have turned special attention to this point; and I have considered that no such intolerance exists. Persons will be met with who are intolerant of phosphorus, if the drug be given indiscriminately to large numbers; but this intolerance is not idiosyncratic—it is merely a contra-indication to the use of the drug, which in that individual, at that time, is not wanting. This view serves also to explain another opinion which I have put forward—that persons who are physiologically wanting in phosphorus can take much larger doses of it with impunity than those who are not deficient. Thus, while that dose which is a stimulant for a person in health would take the very slightest effect on a person dying of typhus fever, for instance, the dose *appropriate* to the last named condition is one which I should be extremely careful not to approach in dealing with a person in comparative health.

Phosphorus is a tonic: special, as restoring exhausted nerve-function, and as renovating, or even rebuilding, altered nerve-matter; general, as affecting the body at large through the renewed nervous system.

II. I began by saying that these two actions of phosphorus are dependent on the *mode* in which it is administered. Two circumstances affect the result produced—the rate of absorption, and the dose given. The formula employed is included under the former head, for it is reasonable to anticipate that phosphorus in solution will be absorbed with greater rapidity than phosphorus solid.

α. As a stimulant, a fluid preparation of phosphorus should be employed. The choice of vehicles is, therefore, limited to those which dissolve the drug; these are oil, alcohol, and ether. But this action is capable of being materially enhanced by an adjuvant: ether is, therefore, the vehicle to be employed; and it should be present in such proportions as constitute an active dose. I hand you an etherial solution containing one grain and a quarter to the ounce; and this is a convenient form for dispensing it. For some purposes of stimulation, the alcoholic tincture answers perfectly well; this is a saturated solution of phosphorus in absolute alcohol, which therefore contains one grain in three hundred and twenty; and this is a similar preparation of it to that which I have just given you containing ether. Now as to the dose which is to be given as a stimulant. It was the wonderful power of phosphorus in recalling to life (I use that expression advisedly) persons who were moribund from the fevers called putrid, ataxic, malignant, petechial, or bilious, which first served to fasten attention upon it as a remedy. Almost every one of the older writers records one or more of such examples. Kramer, Mentz, Wolff, Barchewitz, Leroy, von Löbel, Lobstein, Gaultier de Claubry, Remer, Coindet of Geneva, and many others, unanimously concur in assigning this power to phosphorus, as they are not unanimous in respect of some other powers. The desuetude into which the drug has fallen, if for this purpose alone, calls, therefore, for some explanation. These authors recorded their successes after the use of doses which were immense, and which must in some instances have killed the patient; but so soon as the very active toxic powers of this element became known, the result was felt in such a reduction of the dose as rendered it useless as a remedy in the typhoid condition. This caution was reasonable and laudable as far as it went; but, with the wider knowledge now possessed of the powers and action of phosphorus under various conditions, it may once more be used for this purpose in the only doses which can prove serviceable—doses which in less instructed times could only be considered heroic or simply rash.

I think that, for the present purpose, the dose given should begin at one-twelfth of a grain dissolved in a scruple or more of ether, to be repeated every four hours, or oftener. Probably no useful end will be served by repeating it oftener than every two hours. But I am very clearly of opinion that this dose in this form may, upon occasion, be advanced to one-tenth or one-eighth of a grain, or even higher still. As it has sometimes been thought necessary to force an alcoholic stimulant down a patient's throat until he *did* show some signs of recovery, so I have not hesitated, under appropriate circumstances, to increase the dose of phosphorus with a similar perseverance and confidence.

For some of the other purposes named—to throw out a rash, to prepare for, or relieve from unusual exertions of mind or body, and in the kinds of neuralgia indicated, the alcoholic tincture will be found to answer every purpose; nor, although the dose should never fall below one-twelfth of a grain, will occasion be found to advance much upon it; and further, two or at most three doses will be found sufficient as a rule.

β. But if it be desired to elicit the tonic powers of this drug, the medication must be pursued on an entirely different plan. First of all the formula to be employed may be a more pleasant one—a pill. I hand you three kinds of pill. In this the metalloid is dissolved and mingled with inert matter; it is easily diffused in cold water. I have no clinical experience of it. In this, the metalloid is reduced to a homogeneous paste; this, too, is easily disintegrated in water. It is an excellent preparation. These are pills of zinc-phosphide, an extremely safe, and fairly efficacious means of procuring the effects of free phosphorus. These pills may be employed as a tonic in place of any of the solutions, because, in the cases to which they are appropriate, not only are the digestive powers, the absorbent processes, and the contents of the intestinal canal in a condition to deal with them, as they are not in the typhoid state, but because it is advisable, at the same time that the dose is small, that it should for this purpose be absorbed gradually.

The stipulation that the tonic dose of phosphorus shall be small, must be strictly adhered to, because it is for that purpose an appropriate remedy in conditions—that of brain-softening, for example—in which its stimulant effects would be disastrous. In similar states, I believe, Dr. Radcliffe recommends that one-thirtieth of a grain should be taken once a day; but I am inclined to prefer Dr. Hammond's method of giving about one-hundreth of a grain three times a day instead. Dr. Radcliffe has employed a solution of the metalloid in suet; Dr. Hammond, one-tenth of a grain of zinc-phosphide, the reputed equivalent, in effect, of one-eightieth of a grain of free phosphorus, but, as I believe, of only one-hundredth or less. If reduced phosphorus be employed, probably one-fiftieth of a grain given twice or thrice daily, would be the equivalent in that form. But there are indications in these conditions which may be fulfilled by an adjuvant, and by none so often or so well as cod-liver oil. This may very usefully be selected as the vehicle for phosphorus in these cases; and, although I do not know of any more elegant, useful, and efficacious means of administering the large doses of phosphorus than is presented by these capsules, it will often be desirable to administer a much increased proportion of the solvent. One-hundredth of a grain in a dessert-spoonful of oil taken twice a day, will be found the most useful dose and form for procuring tonic effects with phosphorus in the majority of cases. Cod-liver oil is the only oil which is known not to interfere with the action of phosphorus, or to expose it to change. It has further the great advantage of entirely concealing the odour and taste of the drug.

III. I have thus endeavoured to describe some of the more salient points in the action and mode of administration of phosphorus, which, if they are recognised, cannot fail to have a marked influence upon the doses at present employed. The time during which I am permitted to address you has, I see, expired, and I will, therefore, conclude with a word or two on the toxic powers of this body. These are not so violent nor so treacherous as they are believed to be; although it is true that, if the process of poisoning be once established, no remedial measure is known to have the least power to avert it. In the beginning of the year, I had the honour to show before the Medical Society of London (and, I believe, to the satisfaction of my hearers) that the evil reputation which this drug has hitherto borne is unmerited, and chiefly due to imperfect methods of preparation, and improper modes of administration. It is therefore that I address you specially on *Free* Phosphorus. But tolerance of this drug is very easily established; and it is necessary, if it be employed as a stimulant, that no vague fears be allowed to control the dose given in the first place. The same effect is not at command with a subsequently increased dose as might have been commanded by the larger dose given at first.

Phosphorus can never be effectively employed as a remedy, but in its free and most active state; but with the wider knowledge of its mode of action now possessed, the physician may fearlessly use it to the infinite benefit of suffering humanity; nor, I venture to think, will it ever again be relegated to the obscurity from which it has recently been withdrawn.

RIGOR MORTIS IN AN INFANT AT BIRTH.

By W. C. GRIGG, M.D.,
Assistant Obstetric Physician to the Westminster Hospital.

In last week's Journal, Mr. Ashburton Thompson disapproves of the title I had given to the phenomenon I had observed and reported in the number for October 17th. He believes it to be a tetanic spasm occurring in *articulo mortis* and prolonged after death. I will not enter into the arguments adduced by Mr. Thompson to show that my conclusions were wrong in considering it was a true case of *rigor mortis*, but merely state that the tetanic spasm mentioned by Dr. Carpenter as happening at the instant of death and depending upon some peculiar condition of the nerves and muscles, has never been, as far as I am aware of, fully described by any writer. It is, therefore, impossible to say whether the appearances observed by Mr. Thompson and myself in our two cases corresponded with that peculiar condition or not.

Before deciding against its being true *rigor mortis*, it may be, perhaps, as well to see whether the phenomenon coincided with it or not. Its rarity, if such be the case, without further collateral evidence, is not sufficient to prove *primâ facie* that it was not true cadaveric rigidity. It will assist in arriving at a correct conclusion, if we inquire what is the cause? what are the signs that accompany *rigor mortis?* The experiments of Brücke and Kühne go far to prove that it does not depend upon any property peculiar to the muscular fibre itself, but upon the coagulation of fibrine, held in solution, which bathes the fibrilla of the muscles. The order in which this stiffness makes its appearance is always, or nearly always, definite; first, the neck and jaw, then the upper extremities, and, lastly, the lower limits. It ceases as it began, in the head first, finally in the inferior extremities. If the rigidity of any part after it is fully developed be forcibly overcome, it is not reproduced; on the other hand, if the rigidity be not yet complete, forcibly overcoming it will not prevent its occurring again. The period at which it appears after death varies according to circumstances, as also does its disappearance. In new-born infants, it comes on early and ceases early.

In the case reported by me, the jaw was fixed, also the neck and extremities; but the lower limbs were less firmly set than the upper ones. The jaw, which was very rigid, again became stiff after a short time, as also did the limbs, but the former not so much so as the latter. The cadaveric rigidity was evidently not fully developed. In Mr. Thompson's case, the reverse was the case; the stiffness was passing off, for the neck was not fixed, the jaw not noted. The extremities, when once extended, did not become fixed again, but remained limp. The phenomena here noted so entirely correspond with what has been observed in that condition called *rigor mortis*, or cadaveric rigidity, that without some very strong collateral evidence to the contrary, its mere rarity, which has not yet been proved, is not a sufficient proof that it is a passing tetanic spasm and not true *rigor mortis*. I have only to add to the case I previously reported, that the clots passed shortly after delivery by the mother were of such firm consistence that the midwife, who had large experience, thought from their firmness they were pieces of flesh. The woman had afterwards adhesive phlebitis of the veins of the right thigh and leg. Whether inflammation of the veins or the coagulation of the blood is the primary condition, has not yet been determined; but, in this case, I have no hesitation in saying the latter was the primary state.

THERAPEUTIC MEMORANDA.

IODINE IN REMITTENT AND INTERMITTENT FEVER.

Having, in 1869, seen a solution of iodine recommended* in fevers, I have since tried it in many cases with very satisfactory results. I have used the tincture in doses of ten to fifteen minims (fifteen to twenty-five drops) three times a day, or four times if necessary. The following are illustrative cases. 1. A negro policeman had intermittent fever, which was stopped in two days by tincture of iodine, after fifteen grains of quinine had failed. 2. In a case of Nevis fever (the most obstinate remittent fever in the Leeward Islands), there was high fever twice daily. In a week, it was brought down to fever once in three days, which was ultimately broken by quinine. 3. In a case of Indian jungle-fever (seen in Cupar), the attacks often recur, but are always easily stopped by a few ten-minim doses of tincture of iodine. 4. A man of the 42nd Regiment, attacked with Ashantee fever, had fever during the voyage home, and for about three weeks after his return, every third day, in spite of quinine. After a week's use of tincture of iodine, the fever disappeared, and did not return during another month that he remained in this locality. The iodine appears to me to be more permanent in its effects than quinine. It may be of use in typhoid and typhus fevers. Dr. Willebrand recommends it to be given every two hours in such cases. It must always be given in plenty of water—about a wine-glassful.

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* De l'iode comme remède specific contre la fièvre intermittente, par elix de Willebrand, Professeur de Clinique Médicale de l'Université de Helsingfors.

W. MUNRO, M.D., C.M., Cupar-Fife, late District Medical Officer, St. Kitts, West Indies.

SURGICAL MEMORANDA.

ON THE LOCAL USE OF TANNIN.

MR. LLEWELLYN THOMAS writes to the BRITISH MEDICAL JOURNAL of October 24th on concentrated solution of tannin as a styptic. I have used it for some years, as a topical application, in various diseases, though rather as an astringent than a styptic. To prepare it of full strength, an ounce of perfectly fresh tannin must be mixed with six drachms of water, in which it readily dissolves. The solution is a thick fluid, of the colour and consistence of treacle, which keeps much better than tannin itself. I am in the habit of prescribing it as Martin's solution, having learnt it from a paper by Mr. Martin in the BRITISH MEDICAL JOURNAL of March 20th, 1869. Mr. Martin recommended it as a method of converting living skin into leather.

Most of the tannic acid found in shops contains a large proportion of gallic acid, and will not yield a very strong solution. But, if an ounce of old tannic acid be mixed with two ounces of water, a tolerably strong solution, which answers for many purposes, may be decanted off after subsidence.

The strong solution of tannin is a most powerful astringent, almost free from irritating properties. It is one of the best dressings for wounds—far superior to collodion, and even less irritating than the styptic colloid, which it somewhat resembles. If applied by a brush and allowed to dry, it soon forms a pellicle which excludes the air, and gives ease to pain. It may be applied to almost any form of ulcer, and to wounds after amputations or other operations, especially when not very deep. It answers well, for instance, after the operation for hare-lip, painted over the pins and threads, in the same way as collodion is sometimes used.

In a female, aged 26, the hair was caught between rollers and the whole scalp removed to within an inch of the left eyebrow and two inches from the right, round on a level with the tips of the ears to about the external occipital protuberance, the periosteum being extensively removed at the vertex. There was much suppuration, followed by erysipelas. After three months, exfoliation of bone occurred, and skin-grafting was performed, first with eleven grafts, and, six weeks subsequently, with twenty-one. After varied treatment, antiseptic and other, little progress was made, till, nine months after the accident, strong tannin-solution was applied. Discharge and fœtor diminished at once, and the healing process went on more quickly than before. Tenderness diminished, and the general health improved rapidly for the first time since the accident. The wound, eighteen months after the accident, was about half its original size, and the discharge trifling. The patient does household work, wears only a thin cap, and is little worse for the accident, generally or locally.

Strong tannin-solution applied to the ulcerated skin of ingrowing toe-nail at once removes pain. After one application, the offending corner of the nail may be readily raised, a little lint inserted underneath, and the nail allowed to grow up. Among many cases, I have in this way cured one in which evulsion, twice performed, had proved only a temporary remedy, the disease being reproduced each time the nail grew up. For cracked nipples, Martin's solution, diluted with an equal quantity of water, is the best application, and corresponds to the tannin-solution commonly used for this purpose.

Enlarged tonsils may be reduced by daily brushing with Martin's soluion. This treatment, though vastly inferior to extirpation, or even to he application of potassa cum calce, is painless, and therefore, in some ases, useful.

Bleeding warts may be readily removed by this application, as also by the erchloride of iron. I have found the former to readily reduce the granulaons from an unhealed umbilicus in an infant.

Chronic phlegmonous erysipelas in the legs may be painted with it with great advantage. I have not found it so useful in acute erysipelas or erythema. As Mr. Thomas says, concentrated tannin drops are an useful remedy after the removal of polypi from the ear. I have known them to remove a small polypus without operation. They check discharge and remove fœtor in chronic catarrh of the middle ear.

I have long been prepared to use Mr. Martin's solution in any case of severe uterine hæmorrhage I might meet with, as Mr. Thomas suggests, but have not yet had occasion to do so. Its powerfully astringent properties mark it as admirably suited for this purpose. For the same reasons, tannin seems a much more suitable agent than perchloride of iron for injecting into aneurisms. Some experiments I have made on animals show that the concentrated solution coagulates blood moving in a living artery, without causing any redness or cauterisation of the walls of the vessel. The clot formed was tolerably firm. I have abandoned this subject, however, being convinced that no good results would follow any form of injection in aneurism, unless the artery can be thoroughly compressed below, in which case injection is superfluous.

Tannin is well known to precipitate albumen and gelatine from solutions. It even precipitates very watery urine. Its actions on the organism are likely to prove extensive and valuable.

PHILIP MIALL, Surgeon to the Bradford Infirmary.

CLINICAL MEMORANDA.

HEPHÆSTIC PALSY.

IT is my belief that, in the cases related by Dr. Frank-Smith, in the JOURNAL of October 31st, and those of an analogous character, such as writer's palsy and many instances of Cruveilhier's paralysis, the symptoms are due to a purely muscular origin, and are quite independent of the nervous system. I may also be allowed to say, that I have never known any good done by general remedies. The affection, being local, requires to be treated as such; and I have been astonished at the result produced by simple shampooing. I had a case under my care at the Liverpool Royal Infirmary, in which the muscles of both forearms were withered and useless. After trying a variety of other means, I adopted simply shampooing—a firm strong grasp on every part of the muscular structures—enough to make the patient wince. It was no child's play either for the operator or for the patient. The process was repeatedly performed every day, and, in about six weeks, the man's arms were as good as mine. I subsequently had a similar case, in which both upper extremities were involved; it was treated from the first by shampooing alone, and the man was cured in about the same time as the preceding. This plan was not adopted until I had used galvanism, strychnine externally and internally, stimulating frictions and heat. It has not yet become general, but it well deserves to be so.

THOMAS INMAN, M.D., Consulting Physician to the Liverpool Royal Infirmary.

OBSCURE PERITONITIS.

PERHAPS the notes of the accompanying case may be of sufficient interest to warrant publication.

R. T., 76th Regiment, was admitted to hospital early in August, suffering from a hard chancre. He was about forty years of age, and, during his service, had been nineteen times under treatment for venereal disease, principally for secondary affections, proving that he must have had a hard sore many years previously to his late attack. The chancre healed, and the hardness disappeared in about six weeks; but the patient seemed to lose flesh and strength without any obvious cause. He suffered greatly from sleeplessness, and the usual narcotics possessed little effect. He never complained of pain; neither was his temperature increased, nor his pulse accelerated. Two days before his death—viz., October 8th—he vomited a very large quantity of green fluid, while a slight fulness was observed in the abdominal region. The functions of the rectum and bladder were always performed with regularity. Weakness increased rapidly, and he died on October 10th. A *post mortem* examination was made forty hours after death by Surgeon-Major Clifton and myself. Rigidity was marked; emaciation great. The *Lungs* did not collapse; they were crepitant throughout, and posteriorly congested. There were thin pleuritic adhesions. The *Heart* was normal, contracted; the right cavities contained masses of decolorised fibrine. The *Liver* was slightly enlarged; its structure was normal. The *Spleen* was enlarged and very friable. The *Kidneys* were congested. *Abdominal Cavity*. On opening the peritoneal cavity, a large quantity of turbid flocculent serum escaped. The intestines, which were matted together by firm adhesions, were uniformly coated on their outer aspect by a layer of dull coagulable lymph, which was easily scraped off. The great omentum was much thickened, in some places measuring half an inch from its anterior to its posterior aspect, in which site there were numerous large masses of fibrine, closely connected with the less organised lymphy deposits. The walls of the intestines, both large and small, were œdematous from transudation. The fluid which filled the abdomen measured about a gallon. A transverse section of the omental mass showed a gritty surface in some parts. The *Stomach* was normal, and internally presented no sign of past inflammation.

It certainly is very unusual that a case of peritonitis of such severity, and of such obscure origin, should have run its course without having given any single sign from pain, pulse, or temperature, to denote its presence; though on several occasions a very careful and thorough examination of the abdomen was made, but with no result.

JAMES MAGILL, M.D., M.R.C.S., Surgeon 33rd Regiment,
Barracks, Fermoy.

THE USE OF THE TOW PESSARY.

SEEING, in the BRITISH MEDICAL JOURNAL, Dr. Copeman's remarks on a case of prolapsus of the uterus treated by the use of a tow pessary, I will briefly give the history of a case that came under my notice.

In August 1873, Mrs. A. requested me to attend her. She complained at that time of great pain across her loins and a bearing down of the womb. Upon inquiry, she informed me that she had had a family; that her last confinement was a tedious one, requiring the use of instruments; and that all her former cases had been good ones, requiring but little attention from her medical attendant. Upon examination, I found the uterus a little extruded, being easily returned, but at once extruded after the removal of the fingers from the vagina. I advised her to rest in bed or upon her couch for the time being. On the morrow I called to see her again, and, for the want of a proper pessary, I placed a quantity of tow, covered with a piece of well greased lint, within the vagina, having previously returned the uterus to its proper position. I called again the third day, and found my patient much better, almost free from pain, and no extrusion of the uterus. I removed the pessary, and replaced it by a fresh one made in the same way as the first. After the lapse of three or four days, I again removed the tow, replacing it this time by a mass shaped after the manner of the oval boxwood pessary, covered with gutta percha tissue in place of the lint. This I allowed to remain for four or five days, requesting my patient to try to remove it herself if it should cause any pain. During the time she was wearing the pessary, I advised her to walk as little as possible, and to rest upon her couch most of the day. To regulate the bowels, I gave one or two compound rhubarb pills at bedtime occasionally, and, as a tonic, a little quinine and iron three or four times daily. I continued this treatment for a few weeks, to the great relief of my patient. She now goes about her duties as a housewife with ease, at times only feeling a little pain across her back, but no sign of any prolapse. Should a similar case come under my care, I shall adopt the same plan of treatment.

It was not my intention to record this case; but, at the request made by Dr. Copeman that such cases should be brought before the profession, I have sent the history for insertion in the JOURNAL.

J. MARTIN, L.R.C.P.Ed., Inkberrow, Redditch.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

WILTS COUNTY LUNATIC ASYLUM.

A CASE OF GENERAL IDIOPATHIC EMPHYSEMA, WITH FATAL ISSUE.

(Reported by J. WILKIE BURMAN, M.D., Medical Officer and Superintendent.)

CASE.—A woman, aged 40, single, a deaf and dumb microcephalic idiot, had been in the asylum since June 1858. She had usually enjoyed fair general health up till August 17th last, when she became feverish and evidently had sore-throat, from the manner in which she put her hands to it and gesticulated. A proper view of the throat, however, could not at that time be obtained, on account of the stupidity of the patient, who resisted all attempts to examine it. About two days after this, she seemed to have improved somewhat, and the feverish symptoms had abated, and she was allowed to get up, though the soreness of the throat had evidently not left her. She went on tolerably well until August 31st, when she had rigors, which lasted several hours, and after that again became feverish and complained much of her throat. The throat could now be successfully examined, and the left tonsil and side of the pharynx were distinctly observed to present a dirty yellow, patchy, and ulcerated appearance. On the evening of September 2nd, respiration became much hurried, and there was some dyspnœa; but the lungs, on examination, were found to be healthy. The patient got worse during the night, and, about 7.30 on the morning of September 3rd, the medical officer was summoned to see her, as she was said to be dying. On his immediate arrival, he found that the patient was generally swollen and puffy in appearance, especially about the face and neck, which parts were also livid. She died a few minutes afterwards, whilst remedies appropriate to the occasion were being applied. There was no swelling or emphysema the evening before, and the nurse was not struck by the swelling of the face and neck until the time at which she sent for the medical officer. The patient was always quiet, and there was no struggling with her during life.

Sectio Cadaveris twenty-nine hours after death.—The face, head, and neck were much swollen and livid, and the skin everywhere was puffy, from swelling and emphysema of the subcutaneous cellular tissue, which distinctly crackled under pressure in all directions. There were no bruises or eruptions, or any external marks of injury. No fracture of the ribs or injury to the pleura could anywhere be detected after close examination. The lungs were perfectly normal, and exhibited some slight hypostatic congestion; the right weighed 10½ oz., the left 11 oz. The heart was quite empty, and its substance emphysematous, pale, and friable throughout; it weighed 6¼ oz. The liver weighed 30¼ oz.; it was strongly adherent to the diaphragm, and its substance was very emphysematous (containing bubbles of air varying in size from a pin's head or less to a pea), pale, soft, and friable. The spleen weighed 7½ oz.; its substance was very soft and emphysematous. The kidneys weighed respectively—the right 2 oz. and the left 3¾ oz.; the substance of both was very soft, friable, and emphysematous. The uterus and ovaries appeared to be normal, and the bladder was empty. The stomach was almost empty, and presented no unusual appearance. The larynx and larger bronchi were carefully examined, but no ulceration or œdema could anywhere be detected. The tonsils were ulcerated and covered by a layer of yellowish matter easily scraped off. The whole brain weighed only 22¾ oz., and was preserved in its entirety.

REMARKS.—The writer has ventured to call this case one of general *idiopathic* emphysema, simply because he was unable to ascertain the origin of the emphysema, and he is still in the dark as to its cause. That it caused death there can be little doubt, and that it came on rather rapidly appears in the evidence of facts recorded. The air must have entered the general cellular tissue, and from thence spread to the internal organs, in some manner or other, by an escape from the lungs or air-passages, in none of which, however, could any flaw be detected. As it is a very puzzling case, and probably one of extreme rarity, the reporter has ventured to record it for the benefit of his professional brethren, some of whom, perhaps, may be able to throw light on the subject.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

NOTES OF SIX CASES OF HYDATIDS OF THE LIVER TREATED BY PUNCTURE.*

By J. B. BRADBURY, M.D., F.R.C.P., Linacre Lecturer on Physic, and Physician to the Hospital, etc.

[*Continued from page* 560 *of last number.*]

CASE V.—(For the notes of this case I am indebted to Dr. Humphry.) A thin, rather delicate married woman was admitted into Addenbrooke's Hospital eighteen months ago, with bulging of the right hypochondrium and epigastrium, which she had observed eight or ten months, and which had been increasing latterly at a greater rate than in the first few months of its appearance; and the greater increase was attended with pain and distress. The swelling was elastic or indistinctly fluctuating. Dr. Humphry introduced a grooved needle near the cartilages of the ribs, where the bulging was most prominent, and then a large trocar, giving vent to a pint or more of clear hydatid fluid. He then passed an elastic tube through the cannula, and removed the cannula, leaving the tube. No ill symptoms ensued. Discharge, first of ordinary hydatid, and subsequently of purulent fluid, took place through the tube. After three weeks, as the discharge continued and was rather fœtid, and the woman restless, there being evidently an insufficient escape for the fluid, Dr. Humphry endeavoured to introduce a larger tube; and, failing in this, placed the woman under the influence of chloroform, and with his fingers and forceps dilated the wound so as to admit his finger freely into the sac. This gave vent to a large quantity of fœtid hydatid *débris* and purulent fluid. He washed out the sac, which was of large size, with carbolised water, by means of a syringe, and left in the dilated opening a gum-elastic tube nearly an inch in diameter, carefully secured. Through this there ensued a copious discharge of pus, which, after a time, was stained yellow; and some times the discharge was almost pure bile. In this way, a considerable quantity of bile escaped. The patient was reduced in strength; and, during the progress of the case, there were two rather severe attacks of pleurisy with pneumonia. Under fomentations and mild treatment, these subsided; the discharge diminished. A smaller tube was in course of time substituted for the larger one, and was kept in for some months. When the discharge had nearly ceased, this also was withdrawn, and the wound healed up, leaving the patient quite well.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

CASE VI.—Catherine Drew, aged 32, married only nine weeks, living at Chesterton, was admitted into the hospital June 19th, 1874, under the care of Dr. Paget; but, in consequence of Dr. Paget's absence from Cambridge after the operation, she was chiefly under Dr. Bradbury's care.

The family history was good. Her present illness commenced three years ago last October with cough, attended with a slight expectoration, which continued through the winter. In the following February, she had also pain in the right side, the character of which during the first fortnight she described as sharp and stabbing, and increased on taking a deep breath or coughing. The pain was, at the end of that time, of a dull aching kind, and she was most easy when lying on the right side. At the end of the winter, the cough left her; but the pain continued, and she was only free from it for a few days together up to the time of her admission. She lost flesh considerably at the beginning of her illness, and never regained it; and she had been again losing flesh during the last two months. In October last, she noticed a slight swelling on the right side just beneath the ribs; but this swelling seemed shortly to disappear. Again, two months ago, she noticed a little prominence in the lower part of her chest, and this increased uniformly to the time of her admission into the hospital.

When admitted, she had no cough, her breathing was embarrassed on slight exertion, and there was obvious and localised bulging of the lower part of the chest. The intercostal furrows were not wider on the right than on the left side, but they were much less distinct. The percussion-note in the upper part of the chest on the right side was resonant, but at the fourth rib it suddenly became absolutely dull. The line of dulness did not seem to vary with the position of the body; it was the same whether she was in a recumbent or in an erect posture. The line of dulness was somewhat lower in the axillary than in the right nipple line, and posteriorly it was fully an inch and a half lower than in front; and this line, particularly in front, became depressed on deep inspiration. Over the dull area, no breathing was audible, and there was an absence of vocal resonance and vocal fremitus. The breathing all over the right side was feebler than on the left. Over the resonant area of the right side, the vocal fremitus and vocal resonance were more marked than over the corresponding part of the left side. The hepatic dulness was continuous with the dulness previously described, and extended downwards to within an inch and a half of the umbilicus. The patient had a little prominence of the eyes, and an enlarged thyroid gland; but the pulse was only 80.

The diagnosis in this case at first was by no means certain, although the probabilities were in favour of a hydatid tumour of the liver. All doubts were, however, dispelled on June 25th, when the needle of the aspirator was introduced, and a clear fluid withdrawn, which contained no albumen, but much sodium-chloride. Dr. Humphry introduced the needle at the most prominent part of the tumour, and drew off about sixteen ounces of fluid. In the course of the operation, the caoutchouc pipe, connecting the exhausting apparatus and the fine-pointed needle which was introduced, became unfastened, so that some air probably entered the cyst.

In the evening after the operation, the patient was very sick, vomited several times matter of a greenish colour, turned very pale, and complained of headache and pain over the seat of the puncture. On the following day, these symptoms had subsided, and she was ordered a mild aperient.

On July 8th, the following note was made. The patient had had some dull aching pain over the seat of the tumour, in the back, and occasionally in the lower part of the left side of the chest, but no very acute pain. No eruption of urticaria followed the operation, and there had been no sickness since the 25th. There was a good deal of nervous excitement for a few days after the puncture, and the patient slept badly. For the first three days after tapping, she took little but beef-tea. Milk she did not care for, and she attributed her sickness to this on the day of the operation. The dulness on the right side commenced at the fourth rib, was depressed with inspiration, and extended downwards to within half an inch of the line which the dulness took before the operation. The right side was less prominent. The breathing over the resonant area of the lung was feebler than on the left side. She sat up yesterday for two hours and a half, and felt no pain whatever in the region of the liver.

On July 10th, she was well enough to leave the hospital and return home.

REMARKS.—The cases have been reported so fully, that any further remarks upon them need only be very brief. They show, I think, the great value of the aspirator as an aid to the diagnosis of hydatid tumours of the liver. In Case VI, it was somewhat doubtful whether we had to deal with pleuritic effusion of the right side, or with a hydatid tumour, until the aspirator cleared up the doubt. And, whilst upon the subject of diagnosis, I would remark upon the great frequency with which pain is complained of in hydatids of the liver; this symptom being present in all the cases I have recorded, often from a very early period of the disease. Notwithstanding this, hydatid tumours of the liver are classed by writers on medicine—even by Murchison in his work on *Diseases of the Liver*—among the painless enlargements of that organ. The pain is in some cases probably due to stretching of tissue; in others, to suppuration going on in the cyst. In two of the cases (Basham and Allen), there was albuminuria, which, I believe, is rare as a complication of this disease. In Allen's case, the albumen did not appear in the urine till the patient had been some time under treatment; but in Basham's case it was an early symptom, and was probably due to pressure of the tumour upon the renal veins; for, when the fluid was drawn off from the cyst, the albumen disappeared from the urine, and reappeared on the refilling of the cyst. It was also noticed that the urine was most frequently albuminous when the patient was kept in bed lying on his back.

Another point in the cases worthy of remark was the great tendency to thoracic complications in many of them. In Cases II, IV, and V, there was present either bronchitis, pneumonia, or pleurisy, at some stage of the disease; and, in Case II, the only one which terminated fatally, death was due to a cyst communicating, through the diaphragm, with the bronchi of the right lung.

As regards the treatment of hydatids of the liver, most physicians in the present day will, I think, endorse the remark of Trousseau (*Clinical Lectures*, New Sydenham Society's Translation, vol. iv, p. 291), that "medicine is absolutely impotent to cure or even to stay the progress of the affection. Surgery alone can afford useful succour."

One lesson which the cases I have brought forward teaches us is, that the smaller the tumour, and the earlier the operation is performed, the greater are the chances of the disease being cured by a single aspiration, and the less is the likelihood of the cyst having already suppurated, or of its subsequently undergoing suppuration. Cases III and VI bear out the truth of this observation. In Case IV, suppuration had taken place before the tumour was tapped; and in Cases I, II, and V, suppuration followed the punctures, although, in Cases I and II, not the first puncture. In Case I, there was a great tendency for the lumen of the needle to be blocked up with small pieces of hydatid vesicles sucked into it by the aspirator, but this was the only case in which this difficulty was met with. It was possibly in consequence of this occurrence that air was admitted into the cyst, and subsequent suppuration ensued. In Case II, the quantity of fluid withdrawn, after the first three punctures was very small; and Dr. Duffin (Clinical Society's *Transactions*, vol. vi) has observed that in these cases secondary suppuration is very liable to ensue. Where suppuration has taken place, there can be no question as to the advisability of making a larger opening by the trocar and cannula, and clearing out the cyst. This operation is by no means so dangerous as was formerly supposed, and it is only a waste of time to make any preparation for the operation in the way of inducing adhesion of the tumour to the walls of the abdomen by means of caustics or needle-punctures. In none of the cases recorded did peritonitis follow the operation. In the sixth volume of the Clinical Society's *Transactions*, Dr. Duffin has recorded a case in which the fluid was purulent at the first puncture, and yet the patient recovered without a bad symptom, although no free or permanent opening was made. Brilliant results like this must, however, be very rare.

In Case VI, pain, nausea, vomiting, faintness, and headache, came on the evening after the aspirator was used; but, according to Dieulafoy, these symptoms sometimes occur, especially in women, and are "more often the result of excitability of the peritoneum than a consequence of phlegmasia of the serous membrane". These symptoms, as is usually the case, had all subsided on the following day.

The cure of some of the cases was much hastened by the plan adopted by Dr. Humphry, of hooking and scraping the dead hydatid vesicles out of the cysts by means of the feather-barb. If we had waited till these had come spontaneously through the drainage-tube, the convalesence would have been much more protracted. Washing out the cyst with a weak solution of carbolic acid was found beneficial, but I have nothing favourable to say of iodine injections; indeed, my patient Basham had a narrow escape for his life, in consequence of the syncope following one of these. In Cases II and III, the eruption of urticaria, stated by Dieulafoy to follow in some instances the first puncture of hydatid cysts of the liver, was observed. The eruption disappeared after two or three days in both cases, and, in Case II, did not return when a second puncture was made.

Accurate records of the temperature, pulse, and respiration, were kept in five of the six cases, and were of value in so far as they enabled us to predict, with tolerable certainty, whether suppuration was likely to follow the puncture or not. In those Cases (III and VI) in which a single aspiration was only required, the temperature speedily returned to the normal.

Such are the principal points of interest in these cases, and such the instruction which they have afforded us. Taken collectively, they show the great success attending the treatment of hydatid cysts of the liver by puncture (five of the six cases being cured), and warrant me, I trust, in intruding so long upon the valuable time of the section.

COLUMN FOR THE CURIOUS.

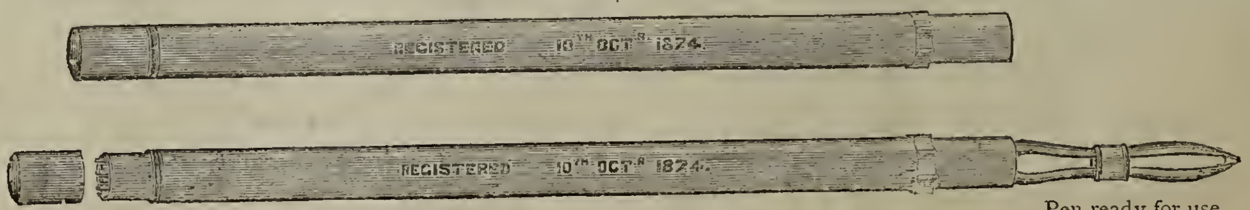
Syphilis in the Sixteenth Century.—There is strong evidence to prove that syphilis, as a special and characteristic disease, first appeared near the end of the fifteenth century. Descriptions of the disease, which cannot be mistaken, begin to appear about 1490; and the writers of that period agree in speaking of the affection as "morbus insolitæ naturæ", as "incognitus non tantum vulgo, verum etiam doctis in medicinià", etc. Such expressions could scarcely have remained unchallenged had the disease really been previously known.* Moreover, "iste pestifer morbus" fell upon Western Europe with the virulence often seen in the first introduction of those poisons, which, like small-pox, scarlatina, etc., in time bring about their own mitigation. Whether the fact has already been noted, I know not; and, unluckily, my library is closed to me at present. But there exists in the old Pinakothek at Munich an admirable portrait of cutaneous syphilis, delineated by a master of the patient and keen-sighted school of early Germany. The picture, which is a prominent and excellent example of the earlier time of the school of Holbein, is hung near the corner to the left on entering the first room of the gallery. After some pictures from the school of Dürer, comes a triptych, numbered 16, 17, and 18. The centre is a St. Sebastian, on the right is St. Barbara, and on the left (No. 18) is St. Elizabeth, succouring the poor and the "lepers". To the left, in this third panel, is the head of a young man who presents, upon the right side of the forehead and face, a patch of tubercular syphilide, which is probably unequalled by any other extant representation. This work was long attributed to the younger Holbein, but it is probably from an earlier hand. On referring to the valuable critical catalogue, edited by Dr. Rudolf Marggraff (which is far superior to the ordinary catologues), I find that the picture was brought from the Jesuits' church in Augsburg. There is no sure evidence, says the author, that this picture came from the hand of the younger Holbein; and, on the other side, both artistic and historical criticism obliges us ("zwingt uno") to attribute it to the elder Holbein. The author dismisses a recent "bold hypothesis" which attributes the work to Sigmund Holbein. Now, if we turn to the elder Holbein, we know that he was born in Augsburg about the year 1460, and that he died in 1524. No attempt is made by Professor Marggraff to fix the date of the present work; and to do so accurately is of course impossible. My own study of the picture, however, compels me to admit that it shows decided evidence of the later culture of the older Holbein, and that it can scarcely be a work of the fifteenth century. It was probably, however, painted not later than 1510-15, when the master was in his prime; so that, if we have not in this work a portrait of a syphilitic "leper" contemporaneous with the first outbreak of the disease, it must have been painted within twenty-five years from the date of the first literary descriptions of it. If this be not a very valuable, it is at any rate a very interesting, piece of evidence.—T. Clifford Allbutt, M.D.

A Mediæval Hospital in Modern Times.—There is a hospital at Beaune, which is, perhaps, unique in Europe. For many years I had intended to break my homeward journey at this interesting old Burgundian town, but circumstances prevented it. This year, however, I succeeded, and was well rewarded for my pains. The hospital, curtly mentioned by Murray, turns out to be an untouched specimen of a hospital of the middle of the fifteenth century. Founded by the Chancellor Rollin in the year 1443, it is not only a charming specimen of the domestic Gothic of that period, but it is to this day, in its internal fittings and arrangements, exactly as it was when first opened 430 years ago. The bedsteads and furniture are of oak, now glowing with the colour and the polish of centuries of hand rubbing; the utensils of brass and pewter, are like silver and gold; the great fireplaces, with their wood fires, are as cozy as they are [illegible]n and picturesque; and the sisters, in their spotless mediæval dress, [illegible] to-day as they were in the times of Philip of Burgundy. The great kitchen, too, with its "marmites" of mediæval beaten work; its gigantic spits and quaint smoke-jack, if not all used, are religiously kept as they were; and the "pharmacie", set round with old blue gallipots, is not the least interesting place in the building. The wards are lofty and spacious, and the courteous surgeon whom we met on his round, assured me that the hospital was very healthy, and that his cases do excellently well. Every one whom we met seemed pleased to see us, and my wife and myself were allowed to wander in the old quadrangles and to chat with the patients as we liked. I must not forget to add, that in an upper room is a remarkable painting of the Last Judgment by Roger van der Weyden, said to be his best work. It is certainly one of the finest pictures of the early Flemish School. It was bequeathed to the hospital by the generous founder. This picture may be overlooked, and the visitor should apply especially to the Lady Superior for permission to see it.—T. Clifford Allbutt.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE PEN VACCINATOR.

We understand that Messrs. Maw, Son, and Thompson, of Aldersgate Street, are now selling a very convenient, portable, and efficient vaccinator, the invention of Dr. R. Harvey Hilliard of Holloway. The idea, though simple, is very ingenious. It is a sort of pocket drawing or mathematical pen, the blades of which are made of a hard, clean, incorrodible metal. For convenience of carriage, and to preserve the lymph, this shuts into a tightly fitting case, which thus constitutes a "moist chamber". There is sufficient space between the blades to contain lymph enough to vaccinate at least a dozen children. In arm-to-arm vaccination, the instrument will charge itself by the so-called capillary attraction of the two blades; or lymph may be blown on to it from one of Dr. Husband's tubes. There is a reservoir at the other end which will hold several of these tubes, so that a very large number of children can be vaccinated at one sitting. In vaccinating with it, the pen is reversed (as if for writing), and a scratch of short length made at the desired spot; this does not draw blood (a great advantage over the lancet, especially if the child be restive), but lodges the vaccine virus just where we want it. For greater certainty, a second short scratch may be made across the first, like a Roman X. This vaccinator does not alarm either our little patients or their friends. In short, its numerous good qualities will, we feel confident, secure for it a large sale. We should add that it has been tried before being introduced to public notice, and found to more than answer the expectations of its inventor.



Reservoir for Vaccine Tubes.

Pen ready for use.

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* Littré believes that he has discovered an allusion to syphilis in a writer of the thirteenth century.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 7TH, 1874.

THE REGISTRAR-GENERAL'S RETURNS.

WE referred in our leader of last week to the fallacies contained in Dr. Letheby's reports. The following explanation published by the Registrar-General is in reference to that article, and is an explanation of the Registrar-General's own returns.

The significance of the death-rate has been frequently explained in the reports; but, as it is not yet apparently understood by all who employ it, a few words on the subject may be of use.

The parish clerks of London, at the instance probably of Elizabeth's Government, began the weekly bills of christenings and burials in 1593, and the series was continued uninterruptedly from the year 1603. At first, the plague was distinguished, and then other diseases and casualties. The average deaths being known, the mere rise or fall of the weekly numbers gave a good indication of the varying mortality of the people, without any reference whatever to the population.

The Registrar-General, in the year 1840, took up the traditional London weekly bill, extended it, and has since made it complete by including with London twenty more great towns of the United Kingdom, the whole inhabited by nearly eight million people. By persevering applications, the returns have, at length, been procured weekly from the principal cities of Europe, India, and America. As the cities and towns vary in population, to make comparison possible, it was necessary to show not only the number of deaths, but the proportion the deaths bore to a fixed number of the living, for convenience made 1,000; and further, as in the calculation of simple interest, to show not what the rate is per week, but *per annum*. This is the death-rate as it appears in the present publication.

It is evident, in the first place, that, if the weekly deaths are correctly recorded, their fluctuations in a town will show its varying states of mortality; and if the populations of towns, which seldom fluctuate much, can be calculated approximatively as the rates of increase vary little, the death-rate will show, as a matter of fact, how much the mortality of a town varies from the mortality of other towns in any particular week. The census is only taken every ten years; but the local authorities have it always in their power to determine whether the town is increasing or decreasing at the usual rate, so that no error of any magnitude need be committed in the estimate of the population, especially where the population is large. Thus, in London, before the census of 1871 was taken, the population was estimated by the Registrar-General at 3,247,631, and it was found by enumeration at the census to be actually 3,254,260.

The death-rate is a fact; anything beyond this is an inference. In deciding whether the mortality is much greater than it should be, and whether the average mortality of one town is greater than the mortality of another town differing from it but little, all the resources of statistical science have to be brought into requisition. The distribution of the population, according to age and sex, may be different, and this has to be taken into account. The deaths of males and females have to be compared with the corresponding mean population living at different periods of life; and from the death-rates varying in each period, the variations of the law of mortality with age can be determined. This being done, a life table for the population of the place can be constructed, showing the mean lifetime from which the normal mortality of the people can be determined. The same table shows the population living at each year of age to a given number born, and the mean age of the living.

Disturbing elements have to be considered: thus, a certain number of patients sent from the country to London for medical advice die either in private houses, workhouses, or hospitals, and a certain number of unmarried young consumptive people return home to the country to die; these two currents probably neutralise each other, and it would be unsafe to attempt a correction either way on this account.

The chief disturbing element in the country is the excess of births over deaths, which has the effect of increasing the mass of young people living at ages when the mortality is low; and, in addition to excess of births in towns, the immigrants at early ages have the same effect. The death-rate, true in itself, is below what the death-rate would be in the same population normally constituted as regards age.

But the disturbances from these and from all other intrinsic causes acting on the death-rate, so far as is yet known, are not great; thus, in all England the crude annual death-rate for thirty-five years is 22.4 per 1,000, while the corrected rate by the life-table is 24.5. The crude death-rate in towns understates the mortality. But, as far as we know, the underrating does not exceed 3 or 4 per 1,000; and this is not considerable when we find the average death-rates of thirty years (1841-70) varying from 15 in Glendale (Northumberland), to 24 in London, 27 in Birmingham district, and 36 in Liverpool. Add 2 to Glendale, 3 to London, 3 to Birmingham, and 3 to Liverpool, and the mortality, corrected approximatively so as to make it the mortality of a population normally constituted as to age and sex, becomes 17, 27, 30, and 39.

It will be observed that the correction alters the relative less than the absolute mortality, and that, for immediate practical purposes, the relative crude mortality is a satisfactory guide.

In deciding on the exact relative mortality of these towns, the observations should extend over about ten years, so as to get an average not much disturbed by epidemics. The rates of mortality and the causes of death at convenient intervals of age should also be determined, and be made the basis of the life-tables.

And if it is desirable to investigate the causes of any differences in the mortality, the density of population, the water-supply, the drainage, and the occupations will naturally be taken into account.

A volume is now in preparation showing for the males and females of 622 districts of England and Wales the rates of mortality, at the same ages as are shown for London.

It may thus be summarily stated that:

1. The crude rate of mortality, which is the proportion the deaths bear to the population, is a definite fact, and shows the variations in the mortality of London or of any other town, from week to week, year to year.

2. The true rate of mortality and the mean lifetime of a people living in a town or a country can only be determined by means of a life-table, such as that which has been constructed for England and Wales.

3. As the population of England is increasing by the excess of births over deaths (three births to two deaths), and the increase is still greater in towns by the excess of their immigration over emigration, the number of people is in excess at ages when the mortality is low, so the death-rate is below what it would be if the numbers of population at different periods of life were in the same proportion as they would be if the births equalled the deaths in number.

4. The absolute mortality, as derived from a life-table properly constructed, is higher in England, where the population is increasing, than the crude death rate, to which two, three, or four per 1,000 should be added in the several districts to get the absolute mortality.

5. The death-rate, which is a safe guide in judging of the varying mortality of the same place, is also a safe guide in judging of the relative mortality of towns. Wherever the mortality exceeds seventeen in 1,000, there is much sanitary work to be done.

SANITARY CONDITION OF CLIFTON.

ONE of the most instructive chapters in this year's record of public health and sanitary work will be that which relates to the sewer-ventilation question. Bristol just now offers a contribution to the history of the question, for Bristol has awakened to a sense of impending peril from sewer-gas. Clifton is a large and wealthy suburb of Bristol, having a separate sewer-system of its own, but under the sanitary authority of Bristol, and rejoicing in a particularly clean bill of mortality. The sanitary guardians of Clifton appear to have been somewhat taken aback by some recent disclosures made, from a sense of public duty, by leading members of the medical profession in the place. Facts have been adduced which point to the condition of the Clifton sewer-system as providing a facile escape of sewer-air into the houses, and as responsible for some recent cases of "awful mischief" and wide-spread diseases of a less fatal kind. It is not in the having unventilated and unflushed sewers, with imperfect house-drain connections, that

Clifton stands in contrast with other towns; nor is it for the large dimensions of the evil to which attention has been called, that the Clifton sewer-question need be made a public one. The case is of public interest on other grounds than these. It has special interest as indicating a novel and extraordinary shape which, in a large and enlightened community, the question may take. The subject has come before the sanitary authorities on the unquestionable authority of leading members of the medical profession. The authorities denounce the statements, and put up their medical officer to do battle for them. Thereupon the medical officer of health takes up a position which we earnestly counsel him to vacate without delay—a position fraught with the direst consequences to the community, and to the cause we feel sure he must have at heart.

Some strong and exceptional local influences must be the explanation of an attitude at once strange and perverse. An antagonistic or at least negative attitude on the part of lay sanitary authorities, in matters affecting the public health, is so common as to have passed into a proverb; but the spectacle of such an attitude backed by a medical officer of health is one we had thought it impossible in these times to produce. We feel sure that good sense will soon reassert its supremacy.

Apart from this special aspect, the state of affairs at Bristol may be taken to represent some not uncommon errors in the mode of dealing with the question of sewer-ventilation. And, first, it is not uncommonly believed that district registrars' returns and death-rates express facts that have an immediate bearing upon the state of sewers and upon the escape of sewer-gas into houses. The death-rate of Clifton, for example, has been recently much paraded, as evidence not merely of the general salubrity of the place (which is undeniable), but of the efficacy of the measures taken to prevent disease. It cannot be too much insisted upon, that the figures given in such returns express the resultant of numerous opposing forces, some tending to death, and others tending to health. The death-rate is the expression of an equilibrium produced by the complex interaction of healthful influences and influences tending to produce disease; it gives as much information about the state of the sewers in a place like Clifton, as of rainfall or salubrity of site. Again, the returns of fatal cases of special diseases are not to be taken as indices of the prevalence of those special diseases. Statistics have not yet landed us in that Utopia of ready reference. No more serious obstacle exists, in our opinion, to the progress of sanitary reform in special directions, than in the misapprehension of the nature and value of mortality returns.

Another important and prevalent error suggested by the Clifton discussion is this: that, because some obscurity envelopes the causal connection between special diseases and foul emanations from sewers, there is ground for withholding action until the obscurity is cleared up. By the lay and unscientific mind, the obscurity is held to mean nothing less than the absence of all causal connection whatever. To the lay and unscientific mind, scientific evidence of any sort must be brought in a very direct and demonstrative manner. Such a mind could admit the fact of gas being in sewers, and of some pressure, when demonstrated by experiments with the family water-closet and a lighted candle. Doubtless, if experiments of a kind like those that are used to demonstrate the presence of oxygen in ordinary air, could be used to demonstrate the presence of typhoid fever-poison in sewer-air, the lay and unscientific mind would become exceedingly active to destroy the poison, or at least to keep it out of houses. Experience is, unhappily, altogether in favour of the belief that even the gigantic experiments performed in times of epidemics with sewers and with human lives fail utterly to awaken in some minds any other convictions than such as pertain to an avenging Providence and creatures smitten for their sins. But to that portion of the lay public which is in the habit of looking at disease as due to causes that may be and should be found out, which can appreciate scientific evidence of causal relationships, this obscurity, it is to be feared, frequently invalidates the practical conclusions of common sense. The confusion is greatly due to the faulty mixing up together of two essentially distinct things. Sewer-air laden with healthy fæcal emanations is one thing; sewer-air laden with the gaseous products of diseased evacuations is a different thing altogether. The first does harm; it aggravates especially all diseases of the fever-kind. But the harm is a question of degree: as the sewer-air is diluted, so its harmful properties disappear. In the second case, *something* whose virulence dilution *may* mitigate, but is powerless to quench, is carried by the sewer-air. Admit sewer-air so laden into houses, and disease and death are found to follow inevitably. Herein is the obscurity; it concerns the *nature* of that which sewer-air carries from diseased products in the drains. The obvious conclusion that, in preventing the lesser evil, we make it a matter of comparative indifference whether the obscurity is cleared up this year or the next, is what we are concerned to see pressed home just now.

WHO IS RESPONSIBLE?

We observe with satisfaction that the subject of public health and sanitary administration, which not many years ago attracted but little notice, is daily receiving more and more of that attention to which its increasing importance entitles it. It has latterly afforded the materials for frequent discussion, not only in scientific circles, but also amongst the general public. The leading journals again and again take up the matter. At one moment, they discuss the injurious effects produced upon our population by the foul sewer-gases, which, owing to the want of proper sanitary precautions, are ever entering our dwellings and poisoning us in our homes; at another, the spread of preventable disease, in its relation to local government, is dealt with; and hardly has the discussion ceased, than some new circumstance, often a local outbreak of some infectious fever, again leads to its renewal in one of its various aspects. Our statesmen and legislators speak about the laws of health and their administration more freely than they have ever done before. Some of the most prominent amongst them say that the time has come when home-legislation and the health of the people have the first and highest claims on our Government; and they declare that reform must be carried into those haunts of crime and disease where gross sanitary neglect has both fostered the one and engendered the other; and the Prime Minister himself, in rallying his party round him, did so at no distant date to the cry of "Sanitas".

But on no occasion has a more important question been raised than that to which the *Times* has within the last few days opened its columns, and which, though not so expressed in actual words, virtually is, Who is responsible for the sanitary neglect which, continuing in our midst, is the ever recurring cause of so much preventable disease and death? The immediate cause of this question is the occurrence of an outbreak of fever on a scale which, in point of magnitude, is almost without parallel in recent years.

The township of Over-Darwen, with a population of 25,000 persons, is suffering from an epidemic of enteric fever, which, at the lowest estimate, has already attacked 1,500 of the inhabitants, and is still increasing. The cause of the outbreak has been ascertained, and its spread is due to sanitary conditions which are utterly revolting. Dr. Stevens, of the Local Government Board, in addressing the Local Board of Health, said that he could not find words in which to convey an idea of the extent to which sanitary neglect had prevailed: there were acres of exposed excrement in the place, and in consequence the prevailing disease was, in his opinion, "held in the atmosphere like clouds of poison". The Vicar of Over-Darwen also exposes in emphatic terms the magnitude of the prevailing evil; he aptly speaks of his parishioners as a large population "sitting amid, walking in, and breathing, their own excreta"; and he describes conditions which he says "one would think would move the stoniest heart to pity". To whom can he and his fellow-townsmen look for help? Perhaps to the Local Board of Health. But the present Board, whose sanitary action is best exemplified by the existing condition of the town, are stated to have got into office under the cry and promise of economy. Perhaps to the Government, who have sent a commissioner down. But, adds the Vicar almost despairingly, "a commissioner was sent down about twelve years ago, and he reported; and his report might be adopted word for word" at the present date. Finally, he, "with many others", appeals to the public through the press; and he asks for redress.

Now, the question naturally arises, Who is responsible for conditions such as these? Are the local sanitary authorities alone responsible? and, if so, what is the real import and meaning of the local inquiries held by the officers of a government department which, in many sanitary mattters, has been vested with powers by which it can compel compliance with its orders? In the case of Over-Darwen, it happens that, since the previous inquiry was held, there has been a transference of the Health Department of the State from one administrative office to another, and there may, perhaps, be some difficulty of determining to what extent such responsibility as that to which we refer may or may not also have been transferred. But this is no isolated case. Towns and villages are frequently inspected, either on account of the prevalence of disease within them, or because of imperfections in their sanitary administration; and it is well known that, in many instances, little or nothing is done in consequence. Now that this question has once been raised, we trust it may not be allowed to drop until it is definitely known where the responsibility in such matters really lies, and how this condition of things can be remedied.

WE regret to learn that small-pox is spreading very rapidly in the neighbourhood of Todmorden, and we hear that the local authorities are doing little to arrest the progress of the disease.

DR. ROLLESTON has been nominated to represent the University of Oxford in the General Medical Council, in the room of Dr. Acland, who was elected President during the last session.

THE Association of Trained Nurses have sent down six Small-pox nurses to Todmorden, at the request of Dr. Steele, the Medical Officer of Health.

THE funeral of Dr. Lankester took place, on the 3rd inst., in the ground adjoining Hampstead Parish Church; the Rev. Stopford Brooke, one of Her Majesty's chaplains, officiated. The mourners included Mrs. Lankester and family, Dr. Hardwicke, Mr. Pope, Q.C., Mr. Beale, and others.

THE session of the Lisbon Medical School was opened on October 8, in the presence of His Majesty the King of Portugal, and the Ministers of State, and a large audience. The names of the successful candidates for prizes, seven in number, having been read by the Secretary, the prizes were distributed by the king.

WITH respect to the election of Dr. Donkin as assistant-physician to the Westminster Hospital in place of Sir Duncan Gibb, promoted to be physician, as stated in the JOURNAL of last week (page 563), Dr. Basham writes to inform us that no election to the office of physician took place, as a quorum could not be obtained to render the election legal; and that Dr. Gibb offers himself as a candidate for the office of physician, vacant by the lamented death of Dr. Anstie.

THE TREATMENT OF WOUNDED IN WAR.

WE understand that the prize offered by the Empress of Germany for the best essay on the Treatment of Wounded in War was not awarded entire to Surgeon-Major Porter, the Assistant Professor of Military Surgery at Netley, as was last week announced, but that he has the honour of sharing the distinction with Professor F. Esmarch of Kiel and Dr. Landsberger of Posen.

HOSPITAL DANGERS.

THE Paddington Board of Guardians appear to recognise the importance of an evil in connection with out-patient hospital and dispensary practice to which we have often adverted, viz., the certainty of its proving a fruitful source of the spread of infectious diseases, and we would recommend the example of the Paddington Board to other hospital and dispensary authorities. One of the medical officer's books showing that a child suffering with scarlatina had been attended for three days at its own home, after which it had been brought to the dispensary and allowed to mix with others in the waiting-room, the Board resolved, that the medical officers should be requested to attend all cases of scarlatina at the patients' own homes "from first to last"; and gave directions that the following notice should be posted in the waiting-room of the parish dispensary.

"Persons suffering with, or recently recovering from, scarlet fever, are on no account to be brought to the dispensary, as such a practice is attended with great danger to the patient, and is sure to spread the disease. The medical officers will attend such cases at their own homes. By order of the Board of Guardians."

MEDICAL INSPECTION OF SCHOOLS.

ATTENTION has lately been drawn to a serious omission in the clauses of the Sanitary Amendment Act; namely, the want of compulsory power of inspection by medical officers in private and public schools. Children frequently attend these establishments with the seeds of infectious maladies matured within them, or return to school after their illness, and before the period of infection has passed, or during the time that some members of the family are ill. There can be no doubt that a large amount of suffering and many deaths have been caused by this negligence. What is urgently needed is, that the medical officer shall have compulsory power to enter schools and examine the health of the pupils, and, where necessary, eliminate the infectious children until they are thoroughly restored to health. Dr. Dudfield suggests that the School Boards should exert their influence by adopting a rule that no convalescent should be readmitted until all danger of infection is at an end; and, also, that no child should be allowed to attend school during the prevalence of infectious disease within the house in which the child resides. These rules, if laid down by the School Board, would do a great deal towards effecting a remedy for the evils complained of, but compulsory power of enforcing their observance would still be required. It requires a practised eye to detect the incipient stages of disease; and that skill very few persons except medical practitioners possess. Schoolmasters and mistresses are certainly, as a rule, incompetent to decide upon such questions. The enforcing of these sanitary regulations would doubtless at first meet with opposition; but it would, in the end, prove of inestimable benefit to schoolmasters, parents, and children.

THE DISUSE OF LEAD IN THE CONVEYANCE AND STORAGE OF POTABLE WATER.

DR. LAUDER LINDSAY, F.R.S.E., writes to us as follows:

A leading article on Lead-Poisoning in the BRITISH MEDICAL JOURNAL for October 31st, 1874 (page 563), concludes by the adjuration—"Let us beware of those evils which assuredly accrue from the contact of leaden cisterns and leaden pipes with soft drinking-waters." Nearly twenty years ago, I convinced myself, by a series of experiments, that equal danger arises from hard water, which danger, I may add, is not yet publicly recognised or realised. My results as to the action of hard waters on lead were brought before the Chemical Section of the British Association in 1858 by the late Professor George Wilson of Edinburgh, and gave rise to animated discussion. They were fully embodied in a paper in the *Edinburgh New Philosophical Journal*, April 1858, in a paper afterwards reprinted as a pamphlet. A complete *résumé* was also given by Dr. Benjamin Richardson, in a Note on the Position of the Lead and Water Question in the *Medical Times and Gazette* of October 29th, 1864 (page 473); while my conclusions have been quoted in the well-known *Manual of Practical Hygiene*, by Professor Parkes (first edition, pp. 41-2); reviewed in the *New York Medical and Surgical Register* (vol. xii, page 449), the *Edinburgh Veterinary Review* (January 1860), the *Scottish Review* (April 1860), the *British and Foreign Medico-Chirurgical Review* (Toxicological Report, October 1859, page 533), and other medical or other journals abroad or at home. Nevertheless, it is obvious, from the tone of the leader in the BRITISH MEDICAL JOURNAL already quoted, and of similar articles on lead-poisoning from water that are every now and then appearing in the public or medical press, that the danger from hard drinking-water is not yet realised. This is proved, moreover, by the important practical fact that, although in England I know of cases, such as the buildings at Netley, where, doubtless owing to the wise precautions of Professor Parkes, no lead has been used in water-pipes or cisterns, in Scotland, so far as I know or see, the use of the old-fashioned objectionable material for water conveyance and storage is still universal. The more extensive and varied becomes my experience as officer of health of a large community, the more firmly convinced I am, with the writer of the article on Lead-Poisoning in the BRITISH MEDICAL JOURNAL (page 562), "that the only safe plan is to discard lead altogether from all contact with our potable water". Stress, however, may properly be laid on the word contact; for it does not follow that the outer or main coating of the material selected for the conveyance or storage of water should not be lead. On the contrary, from its cheapness and ductility, it is perhaps the most suitable material; and it is the basis used in the modern manufacture of "encased" or "coated" water-pipes or cisterns, the inner casing or coating—that which alone comes into contact with the water—being tin, enamel, glass, or other substance, not acted upon by the water whether soft or hard. In my original pamphlet (of 1859), I gave a full list of such coatings, inner and outer, or of the materials that might be used as a basis instead of lead—such as glass, earthenware, or iron; and I then called attention to the various patents of Mr. E. K. Davis of 42, Tenison Street, York Road, Lambeth, London (page 19, foot-note, in my pamphlet). The most recent prospectus that has reached me, however, of a similar patent, is that of the "Patent Lead-encased Block-Tin Pipe Company, Limited", the secretary of which is Mr. R. M. Smith, and the offices at 15, Finsbury Place South, London, his circular being dated December 1873. I mention the latter circumstances mainly for the benefit of those who, in the "inquiry" columns of the BRITISH MEDICAL JOURNAL or elsewhere, have been seeking information on the subject.

HOSPITAL SATURDAY.

WE observe that the disposal of the "Hospital Saturday Fund" is likely to take an unexpected direction. It was very distinctly understood that the object of this so-called working men's collection was to assist the existing metropolitan hospitals and dispensaries. It is reported, however, that the actual intention is to add another to those which already exist by instituting a sanitarium at Sheerness. It is observable also that the two gentlemen who are mentioned as being the active promoters of this proposed addition to our medical claims, Mr. Williams and "Dr." Eldridge Spratt, are intimately associated with special hospitals which have recently been the subject of severe animadversion.

UNUSUAL BEQUEST.

THE monomaniac generally known as the "Hermit of Penshanger" in his will bequeathed the sum of £250 to St. Thomas's Hospital, and in addition his body, for the purposes of dissection. The legacy has now fallen in; and the testator, who at one time had been a student, is now a "subject" at the hospital.

SCARLET FEVER.

THE deaths registered in London from scarlet fever, which, in the three previous weeks, had been 107, 118, and 105, rose last week to 128, a higher number than in any week since the end of 1870; 48 were returned in the east, 30 in the north, and 26 in the south groups of districts. The annual rate from this disease averaged 2.0 per 1000 in the whole of the metropolitan area, being 3.8 in the east, 2.1 in the centre, 2.0 in the north, 1.3 in the south, and only 1.0 in the west groups of districts. The disease showed the most fatal prevalence last week in Hackney, Clerkenwell, Mile-end Old Town, Bow, Poplar, and Brixton.

CASE OF ALLEGED NEGLIGENCE BY A SURGEON.

IN the Court of Queen's Bench on Tuesday last, before the Lord Chief Justice, and Justices Blackburn, Quain, and Archibald, Mr. Torr, Q.C., moved, in the case of Brelsford *v.* Rigby, for a new trial, on the ground that the verdict was against the evidence. The action was brought on the part of a girl eleven years of age, against a surgeon for alleged want of skill in setting her arm, whereby mortification was said to have been caused, and amputation of the limb rendered necessary, and at the trial before Mr. Justice Archibald, at Liverpool, the jury gave a verdict for the plaintiff, damages £150. It appeared that while the child was playing in a schoolroom she fell violently against a fender, and sustained a compound fracture of the arm. The defendant was called in, and, seeing at once that it was a serious accident, took the child in his arms to his surgery, and treated the fracture in the customary manner. She was taken home, and, having visited her the same evening and next day, he requested that if the pain, which had arisen, increased during the night, he should be immediately sent for. He was not sent for, but another surgeon was called in, and the complaint made at the trial was that the defendant placed the bandage round the arm too tightly. Mr. Justice Archibald said the question at the trial was whether he had placed a ligature round the arm or not, and he thought the jury took a too hasty view of the matter. Rule granted.

MUNIFICENT ANONYMOUS DONATIONS.

ABOUT £10,000 has been contributed to the charities of the metropolis during the past month, six donations of £1,000 each standing out conspicuously. "A Friend" has sent £1,000 to the Great Northern Hospital. Mrs. Laurie has also forwarded £1,000 to the East London Hospital for Sick Children. In the month of December last year, fourteen separate donations of £1,000 each were sent to the hospitals and charities by anonymous donors.

PRIZES OF THE SOCIETY OF APOTHECARIES.

AT the recent examination for the prizes in Materia Medica and Pharmaceutical Chemistry, a silver medal and a book were awarded by the Society to John Davies, student of Guy's Hospital, for proficiency in those subjects.

A CANADIAN CLAIMANT.

THE *Canada Medical and Surgical Journal*, referring to the honourable distinctions conferred upon the heads of the profession in this country by the sovereign, asks some consideration for the claims of the profession in Canada to a similar distinction, and especially designates the venerable Dr. George W. Campbell, the Dean of the Faculty of Medicine in McGill University, and the father of surgery in Canada, for a share in imperial honours. "The people of Great Britain", says our Canadian contemporary, "must bear in mind that, although colonists, we are still Britons, not in name only, but in feeling, in principle, in action, in everything save and except actual residence. We rejoice when they are glad, and mourn when they are in tribulation; their Queen is our Queen, and their country our country; honour and prosperity to England swell our heart with pride, and what brings discredit on the name of England equally affects us. Such, then, being our relative position, it is not too much to expect the conferring of honours on our people as is customary in the mother land." There is no precedent for the request in this particular case, but we cannot but think that this is just an excellent opportunity to make one.

THE OUTBREAK OF FEVER.

DR. ELLIOT reports that the epidemic is not extending in Carlisle, and says that there are many other towns equally as bad, or worse, than that town. We do not doubt that statement for a moment; and we have been continually drawing attention to the insanitary condition of the bulk of our country towns *ad nauseam*. It is only when some alarming outbreak occurs, such as those which are now prevailing in Over Darwen, Lewes, and Carlisle, that the general newspapers draw particular attention to a special district, and become alarmists when the public wake up to a sense of their position; from which, however, they speedily relapse, after the nine days' wonder has passed, into their chronic state of apathy and indifference. It would be well if the municipal and sanitary authorities of some hundreds of our country towns would lay the Over Darwen lesson to heart, and see about setting their houses in order ere it be too late.

THE PUBLIC HEALTH.

During last week 5,504 births and 3,627 deaths were registered in London and twenty other large towns of the United Kingdom. The mortality was at the rate of 25 deaths annually in every 1,000 persons living. The annual death-rate was 20 per 1,000 in Edinburgh, 35 in Glasgow, and 23 in Dublin. In the eighteen English towns the deaths referred to scarlet fever were 306, and the annual death-rate from this disease was equal to 3.0 in Birmingham, 5.4 in Bradford, and 8.3 in Liverpool. Small-pox continues fatally prevalent in Birmingham, and enteric fever in Hull. In London, 2,359 births and 1,368 deaths were registered; the births exceeded the average by 20, whereas the deaths were as many as 149 below the average. The annual death-rate was 21. To the seven principal zymotic diseases 217 deaths were referred, being 53 below the corrected average. The deaths from each of these seven diseases, excepting scarlet fever, were considerably below the average. The deaths registered from scarlet fever, were 128, a higher number than in any week since the end of 1870. The disease showed the greatest fatal prevalence in Hackney, Clerkenwell, Mile-End Old Town, Bow, Poplar, and Brixton. The deaths of a gas-fitter in the University College Hospital, and of a plumber in Camberwell, were referred to lead-poisoning. At Greenwich, the mean reading of the barometer during the week was 29.93 in. The mean temperature of the air was 53.3 degs., or 6.2 above the average. Rain fell on five days, to the amount of 1.29 inches, of which 1.12 inches fell on Friday.

THE CORONERSHIP FOR CENTRAL MIDDLESEX.

For the vacant office of Coroner of Central Middlesex, there are several medical candidates: Dr. Hardwicke, who has for several years efficiently filled the office of Deputy Coroner; Dr. Diplock, the Coroner for West Middlesex; and Mr. Mortimer Granville, formerly editor of the *Globe*. There are also two or more legal candidates. We trust that the claims of the medical profession to fill the office will have due weight.

ADULTERATION OF MILK IN LISBON.

A scheme for the official inspection of milk publicly sold in Lisbon has been laid before the municipal council of that city by a member of that body. It is proposed that the milk exposed for sale shall be examined by police agents, who shall be provided with a Quevenne's lactometer and a glass tube. Milk showing a certain diminution of density is to be regarded as mixed with water; that showing an excessive density is to be considered as having been adulterated by the addition of foreign substances, and to be submitted to chemical analysis at a laboratory to be determined by the municipal council. The owner of the milk declared to be watered may have it analysed. Milk found to be adulterated is to be declared unfit for use, and the vendor is to be subject to a fine of 4000 *reis* (18s. 6d.), as well as the expense of chemical analysis.

SCOTLAND.

GLASGOW ROYAL INFIRMARY.

At a meeting of the directors on October 15th, the following medical officers were appointed in place of those who take up duty at the Western Hospital: Surgeons, Dr. James Dunlop and Dr. Hector C. Cameron; Physicians, Dr. A. Wood Smith and Dr. M. Charteris.

OPENING OF THE WESTERN INFIRMARY OF GLASGOW.

This institution was publicly opened on October 27th by a *conversazione*, which was attended by a large number of the citizens of Glasgow and their families. About fifteen or sixteen hundred ladies and gentlemen attended, and universal satisfaction seemed to be expressed at the arrangements. It is well known that the occasion of the erection of the Western Hospital in its present site was the removal of the University from its old situation in High Street to its present position; but it is also abundantly recognised that Glasgow has for some time been in urgent need of additional hospital accommodation, and that the removal of the University was only the occasion for the fulfilment of an enterprise whose need was apparent enough. The new hospital presents a very handsome though simple exterior, and the internal fittings are on the newest and most perfect system. The building consists of four storeys. The lowest, which is partly beneath the level of the ground, is devoted to dispensaries, laboratories, kitchen, stores, etc.; and the other three contain the wards, of which there are at present eight of a large size, with a number of small and special wards. One entire block, containing about twenty beds, is devoted to the treatment of skin-diseases, and is specially fitted with baths and other apparatus with this view. The entire hospital contains about two hundred beds; but the building is at present in an imperfect condition, the original plan involving the erection of another wing, which will more than double the accommodation. This wing is not as yet commenced, as the money at the disposal of the Committee is only sufficient to complete the hospital in its present state. At the close of the *conversazione*, the company met in the operating-theatre, which is seated for eight hundred students, where speeches were delivered by the Lord Provost, Dr. Cameron, M.P., Robert Dalgleish, Esq., M.P., and others.

OPENING OF THE MEDICAL SESSION IN ANDERSON'S UNIVERSITY.

The session was opened on October 28th by an address by Dr. James Dunlop, who took occasion to animadvert on the fact that Glasgow University refuses to recognise the lectures of Anderson's University as qualifying for degrees in medicine. It may simply be remarked, however, that whoever is familiar with the terms of Dr. Anderson's will, and is cognisant of the fact that the name "university" used by the institution founded by Mr. Anderson has been abundantly proved to be a source of confusion to students, cannot be astonished that Glasgow University withholds its recognition. It is vain for any one to blame Glasgow University, when it is remembered that the matter of recognition is in the hands of the University Court, a body whose constitution is such as to warrant the expectation of the utmost fairness. This Court consists of seven members, who are at present the Lord Rector (Mr. Disraeli); the Principal (Dr. Caird); Mr. A. Orr Ewing, M.P.; Dr. Jamieson, late Moderator of the General Assembly of the Church of Scotland; Dr. J. A. Campbell; Dr. Anderson Kirkwood, an eminent lawyer in Glasgow; and Sir William Thomson. Now, if any body of men might be expected to take an enlightened and liberal view of the subject, surely it is such an one as this. The fact that they refuse recognition is *primâ facie* proof that the fault lies with Anderson's University; and that, till it abolishes the name which appears to express antagonism to the national institution, and does in actual fact lead to confusion, it can scarcely expect recognition.

EDINBURGH UNIVERSITY.

On Monday, the winter session of the Edinburgh University was opened by an address from the Principal, Sir Alexander Grant. He commenced his address by an allusion to the financial success of the past session, which he named the "golden" session, from the amount of money which was raised during its course for university purposes. This referred principally to the subscriptions for the new University buildings, which are to be devoted principally to the purposes of the Faculty of Medicine. Upwards of £70,000 has already been got together, but the whole amount required is expected to reach £150,000. The Principal expects to get two-thirds of this sum from voluntary subscriptions, and hopes for Government aid in the shape of the remaining third. The number of students at the University last year was 1,930, of whom 839 were medical, this being an increase in the number of medical students of 57 over the previous year. The number of art students, on the other hand, is decreasing. The difference in the success of the two faculties he explained as being due to the fact that the one meets the requirements of the age, while the other does not. There are 201 medical students matriculating for the first time now, of whom only 62 were born in Scotland, and a few more received their preliminary education there, while the large balance of 139 come from England, America, the colonies, and foreign countries. A comparison with the art students show the reverse to be the case with them; the great majority, five-sixths, belonging to Scotland. The Principal then referred to the new degree in Public Health as filling a recognised want and tending to supply a body of men competent to take the newly made positions of officers of health. After a sketch of changes in the arts curriculum which he thought desirable, the Principal finished an interesting address by a graceful and feeling reference to the losses which the University has sustained in the removal by death of Professor Cosmo Innes, and in the retirement, from ill-health, of Professor J. Hughes Bennett, whom he warmly eulogised, and than whom "no more able, enthusiastic, and successful Professor ever taught in the University of Edinburgh". There was a large attendance of professors, students, and the general public. The regular classes began on Tuesday. In the class of Physiology, Professor Rutherford delivered a special introductory address.

IRELAND.

A PERSON of the name of Anderson has just died at Letterkenny at the very advanced age of 112 years. Up to a few hours of her death, she retained her mental faculties.

MEDICAL SCHOOL OF THE ROYAL COLLEGE OF SURGEONS.

IN conformity with the suggestion made during the past session by the General Medical Council, that certificates of having attended the periodical examinations of the Professors in Medical Schools should be furnished by candidates for diplomas, the authorities of this school have notified to students that during the present session examinations on the subjects lectured on during each week will be held as follows:—On Anatomy and Physiology, each week; and on Surgery, Chemistry, and Practice of Medicine on every alternate week. These examinations will be practical, oral, and written, and each student must put his name on the papers, which will be retained by the Professor for reference and examination; and a certificate of having attended these examinations will be given at the close of the session, which the student can present to the Examiner or Council in proof of his attendance and information.

SURGICAL SOCIETY OF IRELAND.

AN election by ballot—the first of the kind—took place on Monday last, in the Jacob Library, at the College of Surgeons, when the following were elected office-bearers for the Session, 1874-75. *President:* Joliffe Tufnell. *Vice-President:* Edward Hamilton. *Council:* Charles Benson, Hans Irvine, M. Harry Stapleton, Philip Bevan, Humphrey Minchin, Richard G. H. Butcher, James H. Wharton, George H. Porter, J. Stannus Hughes, William Colles, Albert J. Walsh, Rawdon Macnamara, John Morgan, Edward Dillon Mapother, Henry G. Croly, B. Wills Richardson, Edward H. Bennett, Anthony H. Corley, William Stokes. *Honorary Secretaries:* B. Wills Richardson, Humphrey Minchin.

PUBLIC HEALTH ACT.

IN consequence of the universal dissatisfaction felt by the profession at the miserable remuneration allowed by the various sanitary boards throughout the country, to those undertaking the onerous duties of officers of health, it has been determined to call a general meeting next week in Dublin of those interested in the matter, to remonstrate on the inadequate salaries, and to take such steps as may be deemed advisable.

VACCINATION GRANTS.—Mr. Rowland Smith, of Cobham, Surrey, has been awarded £4 : 6 by the Local Government Board for efficient vaccination in his district.—Mr. J. H. Scott, of Newent, has received from the Local Government Board a grant of £6 : 15 for vaccination fficiently performed in his District (Second District, Newent Union.)

THE INCORPORATED BRITISH MEDICAL ASSOCIATION.

THE First General Meeting of the Incorporated British Medical Association was held on Wednesday last, the 4th instant, at the Queen's Hotel, Birmingham; Mr. Southam, President of Council, in the Chair.

The General Secretary read the notice convening the meeting. It was, on the motion of the Chairman, resolved—"That the annual meeting be held at Edinburgh on the 3rd, 4th, 5th, and 6th August, 1875."

It was then moved by the Treasurer, seconded by Mr. Wheelhouse, and resolved—"That the consideration of the By-laws be referred to the Committee of Council, with a request that they report at their earliest convenience."

This terminated the business of the first meeting.

OUR NEWEST BRANCH.

WE have once more the satisfaction of chronicling the formation of a new Branch of the British Medical Association. The North Staffordshire Branch opens under excellent auspices. It is in a thickly populated district, and is headed by practitioners of very high ability and much beloved. It is, we are glad to learn, like the other newly formed Branches, to be worked on the district system of organisation, which we have often warmly advocated. We heartily desire, and may almost venture to predict for it, a permanent career of usefulness and success.

FORMATION OF A NEW BRANCH IN IRELAND.

WE have this week received the pleasing news of the formation of a new Branch of the British Medical Association in Cork, at a meeting held on the 4th instant for the purpose. Thirty gentlemen have joined the Branch. We shall publish a report of the proceedings next week.

THE MEDICAL COUNCIL.

A MEETING of the Executive Committee of the Medical Council was held on October 22nd. At this meeting, Dr. Humphry of Cambridge was elected a member of that Committee, in the vacancy caused by the appointment of Dr. Acland as President of the Council. Communications were received from several departments of Government—viz., the Home Office, in reference to the supply of the *Medical Register* to the Procurator-Fiscals in Scotland; secondly, from the same office, enclosing a communication from Dr. Roe, Coroner for Ellesmere, stating that a certain person had sworn that he was a Member of the Royal College of Surgeons of England, which seemed to be contrary to the fact; and thirdly, from the Local Government Board, in reference to a complaint from Dr. Daniel Jackson of Hexham, in relation to the refusal of the Board to recognise the Licentiateship of the Faculty of Physicians and Surgeons of Glasgow as a surgical qualification. These letters were placed in the hands of the President, who was requested to send suitable replies after communication held with the Solicitor. It was resolved that the visitations of examinations should be continued in accordance with the resolution of the General Medical Council, and that those bodies which had not been visited last year should be visited this year. After the transaction of some further business, the meeting was adjourned to November 12th.

A meeting of the Branch Council for England is summoned to meet on Monday next, the 9th instant.

THE PROVINCIAL MEDICAL SCHOOLS.

THE following are the returns of the number of students attending the provincial medical schools this session.

Birmingham, Queen's College.—Number of students attending, 91; new entries, 30.

Bristol Medical School.—Number of students attending, 30; new entries, 9.

Leeds School of Medicine.—Number of students attending, 75; new entries, 19.

Liverpool Royal Infirmary School of Medicine.—Number of students attending, 101; new entries, 23.

Owens College, Manchester: Medical Department.—Number of students attending, 146; new entries, 44.

Sheffield School of Medicine.—Number of students attending, 20; new entries, 9.

University of Durham College of Medicine, Newcastle-on-Tyne.—Number of students attending, 58; new entries, 12.

THE WORKING OF THE IRISH PUBLIC HEALTH ACT.

THE obstructors of the Irish Public Health Act are having it all their own way at present in Ireland; and unfortunately the Local Government Board is leading the way, as we pointed out before. The Board lately issued an order for the Dublin urban sanitary district, which, after reciting the Act and pointing out that the dispensary medical officers are sanitary officers under the Act, proceeds to direct the governing body to appoint "so many sanitary subofficers as the said body shall with our consent determine"; also "one medical officer of health, and one consulting sanitary officer, both qualified medical practitioners; and also an executive sanitary officer with such qualification as the said body shall determine".

Since the above order was issued, the following appointments have been made, and salaries fixed:—Dr. E. D. Mapother, medical officer of health, £300 a-year; Dr. C. A. Cameron, city analyst, consulting sanitary officer, £300 a-year; A. Boyle, C.E., executive officer and secretary, £300 a-year. The thirteen medical dispensary officers of the South Union district, at £10 *per annum* each. E. G. Webb, subsanitary officer, £46 *per annum*; T. E. O'Connor, £52; G. Edwards, £26; two sanitary inspectors of police, £160 each; three sanitary sergeants of police, £89 : 14 each; two sanitary sergeants, £84 : 10; two constables, £81 : 18 each; one sergeant at a nominal salary of £5 : 4; five sergeants at a nominal salary of £2 : 12 each; a clerk at £52 *per annum*; and one messenger and keeper of disinfecting chamber at £39 *per annum*; a disinfector of dwellings at 3s. per disinfection, and a salary of £19 : 10 *per annum*.

We would observe that the most important post provided for in the Act, namely superintendent medical officer of health, has been quietly ignored by the Local Government Board in all their orders. Dublin is to have no superintendent health-officer, but the present eminent medical officer of health is to be retained in his office. Another anomalous proceeding is the appointment of consulting sanitary officer for Dublin. What does this mean? whom is the consulting officer to advise? Is it the Public Health Committee? if so, what is Dr. Mapother for? or to advise Dr. Mapother? If so, this is adding indignity to insult. Dr. Mapother only gets £300 a-year, and, in addition to this, it is implied that he requires Dr. Cameron's advice in public health matters. The whole matter is a miserable expedient to avoid paying the officers. If Dr. Mapother had the whole responsibility, he must be properly paid, so he is not permitted to have the responsibility. If Dr. Cameron were made a city analyst, he must be properly paid; but he is made neither one thing nor the other, and the same is done with Dr. Mapother, and the rates are saved at the expense of efficiency and common sense. The *executive* officer is the secretary of the so-called Dublin Public Health Committee. We have heard that he is a sanitary engineer, but sanitary engineering in Dublin seems to be a lost art. The dispensary medical officers, who are to be the *real* district health-officers of Dublin, and are, according to the Act of Parliament, "to be paid salaries", are to receive the munificent payments of £10 *per annum* each. Two of these gentlemen between them are to supervise the sanitary condition of 49,000 people. The smallest area between these officers contains a population of upwards of 32,000. Police-sergeants are spoken of as having *nominal* salaries of £2 : 12 and £5 : 4. If these are nominal salaries to policemen, may we ask what is £10 *per annum* to a fully qualified physician and surgeon? The sanitary inspectors are to have £160 a-year each, quite half as much as the chief health-officer, and exactly ten times as much as the medical sanitary officers. We may observe that there are four so-called medical men on the Dublin Public Health Committee. We have said enough, when we say that the management in Dublin is only a large specimen of what is going on everywhere in Ireland.

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting will be held in the Council Room of the Midland Institute, on Thursday, November 12th, 1874; the Chair to be taken at half-past three o'clock P.M. precisely.

Mr. J. Manley will move—"That, in consideration of the services rendered to the Branch by the late Secretary, Mr. Bartleet, during a period of nine years, a testimonial be presented to him—subscriptions not to exceed half-a-guinea."

The following papers are promised:—1. Recent Surgical Experience of the Hospitals of Germany, France, and Belgium. By Mr. West.—2. On Contraction of the Meatus Auditorius Externus, and its Treatment by a new form of Dilator. By Dr. Warden.

Members are invited to exhibit Pathological Specimens at the commencement of the meeting.

BALTHAZAR FOSTER, M.D., } *Honorary Secretaries.*
JAMES SAWYER, M.D., }

Birmingham, November 5th, 1874.

SOUTHERN BRANCH: SOUTH HANTS DISTRICT MEETING.

A MEETING of the above District will be held at the School of Science and Art, Portsmouth, on Tuesday, November 17th, at 8 P.M. W. H. GARRINGTON, Esq., J.P., will occupy the Chair.

Notice has been received of the following communications.

1. Inspector-General Smart, M.D., C.B.: Remarks on the Secondary Epidemics of Cholera in Europe.
2. J. R. Kealy, M.D., and W. H. Axford, M.B.: Cases of Rupture of the Uterus.
3. Cases of Disease and Preparations.

J. WARD COUSINS, *Hon. Sec.*

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

THE next meeting of the above Branch will be held at the County Hospital, Canterbury, on Thursday, November 19th, 1874, at 3 o'clock; JOHN BOWES, Esq., of Herne Bay, in the Chair.

Dinner will be provided at the "Fleur-de-Lis" Hotel at 5 o'clock precisely. Charge 5s, exclusive of wine.

Gentlemen who wish to make communications to the meeting, are requested to inform me *at once*, in order that a notice thereof may be included in the circular convening the meeting.

EDWARD WHITFELD THURSTON, *Honorary Secretary.*

Ashford, November 1st, 1874.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICT MEETINGS.

A CONJOINT meeting of the above Districts will be held at the Pavilion, Brighton, on Friday, November 20th, at 3 P.M.; Sir JOHN CORDY BURROWS in the Chair.

Notice of intending communications is requested to be sent by Wednesday, the 11th instant, to either of the Secretaries—viz., W. J. Harris, Esq., 13, Marine Parade, Worthing; or Dr. Trollope, 35, Marina, St. Leonard's-on-Sea—in order that they may be inserted in the circular convening the meeting.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE next meeting is appointed to be held at the Ophthalmic Hospital at Maidstone, on Friday, November 20th, at 4.45 P.M.; H. CECIL SMITH, Esq., in the Chair.

Dinner will be provided at the Mitre Hotel, at 7 P.M.

Dr. Monckton has promised a paper on Rheumatism and Pyæmia.

FREDERICK JAMES BROWN, M.D., *Honorary Secretary.*

Rochester, November 3rd, 1874.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next meeting of the above Branch will be held at the Black Lion Hotel, Aberdare, on Thursday, November 26th, at 12.30 P.M. Meeting of Council at noon.

Dinner will be provided as usual. Members intending to be present are requested to communicate their intention to Dr. Sheen, Cardiff, on or before the 23rd November.

Those members who desire to read papers are requested to forward the titles of the same to Dr. Sheen, as early as possible.

ANDREW DAVIES, } *Hon. Secs.*
ALFRED SHEEN, M.D., }

Cardiff, October 29th, 1874.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE first ordinary meeting of the session was held at the Royal Hotel, College Green, Bristol, on Thursday, October 22nd; FREDERICK MASON, Esq., President, in the Chair. There were present forty-five members and two visitors.

New Members.—Three fresh members were proposed, to be elected at the next meeting.

Papers.—1. Dr. DAVEY read a paper on the Localisation of the Functions of the Brain.—Dr. E. L. Fox and Mr. Thompson made some remarks.

2. Mr. STEELE, after giving a history of the various operations for the Radical Cure of Hernia, described an operation which he had performed with perfect success, and which consisted of uniting the pillars of the inguinal ring by means of catgut sutures, which were left to be absorbed.—This paper caused considerable discussion, in which Messrs. A. Prichard, W. M. Clarke, Tibbits, and Dobson, joined.

STAFFORDSHIRE BRANCH: FIRST MEETING.

UNTIL last week, there had existed in the northern part of this county a flourishing and well-managed institution known as the North Staffordshire Medical Society. A short time since, some of the more active members brought forward a scheme for inviting the whole of the medical men of the county to organise themselves into a Branch of the British Medical Association. The idea met with general approval, and it was decided that the old-established society in North Staffordshire should be merged in the new Branch. The formal inauguration of the Branch took place at the Railway Hotel, Stoke-upon-Trent, on Thursday, October 29th, and the meeting was attended by Drs. J. T. Arlidge, E. T. Tylecote, J. S. Steel, J. Weaver, C. H. Crawford, S. Johnson, and W. Millington, and Messrs. J. V. Solomon (Birmingham), W. H. Folker, J. Yates, V. Jackson, W. Acton, C. Orton, A. Cotterill, J. G. West, J. R. Wynne, M. Ashwell, W. D. Spanton, J. W. Wolfenden, J. J. Ritchie, J. M. Taylor, R. Goodall, G. R. Bull, J. Alcock, etc.

Election of President.—The first business was the election of a president for the year, and this distinction was by acclamation conferred on Mr. R. Garner, F.L.S., who forthwith delivered an address to the members.

President's Address.—The PRESIDENT commenced his address by observing that it was his duty to perform the obsequies of the defunct North Staffordshire Medical Society, which had merged into the British Medical Association. He made some observations on the subject of medical education, and on the present status of the profession. He said: "It has been thought by others, as well as by myself, that if, with the exception of an examination and registration to guard the public from pretenders, all degrees and diplomas were swept away, there would be little harm done, so much muddle and anomaly has been the result of the doings of the qualifying bodies. Each one of them has endeavoured to usurp the functions of the other, after being guilty of the non-performance of its own; thus, the College of Physicians, after ignoring for ages any right to step without its own special walk, gives nowadays a licence to practise physic, surgery, and midwifery, as well as to compound medicines. Whence this sudden impulse I must leave the College to say; also, how much a license stands in comparison with those of other colleges. The example, as regards its *primum mobile*, became contagious; and it has been sad to see more than one venerable *alma mater*, with one hand hastily lavish its academical favours, whilst with the other it unblushingly clutches the golden fee. What laws could neither create nor prevent has come to pass, like other good things, from a *law of social development*, the transformation of the apothecary into the general practitioner of the nineteenth century. He has no *alma mater;* like other clever *parvenus* we scarcely know how he got into society; few academic honours are open to him; and he has only to be thankful that his money is accepted, and that for it more and more is expected from him in the way of professional knowledge. Whoever is legally allowed to treat the diseases of his fellow-creatures has, from the dignity and responsibility of his work, and, indeed, by common opinion throughout the world, a natural claim to be considered a physician or doctor, in a restricted non-academical sense; and this, irrespective of any difference between the physician and surgeon. Indeed, in France or Germany, all practitioners are doctors of medicine, be they physicians or surgeons. Yet, after all, medical degrees are not looked upon by me with contempt. I am no such leveller. If they continue our *summi honores*, betokening the learned academical career, the prolonged work of brain and hand, the lengthened experience of ripe age, I am well content with such restrictions should they be bestowed, and then they will be estimated, and we are probably slowly arriving to this state of things. I would not even grudge the young aspirant his degree; but let him take care to walk in the path of Linacre or Heberden, and not presume upon what should be considered chiefly as an earnest for the future, and not as a *fait accompli.*"

Dr. WEAVER proposed, that the best thanks of the Society be given to Mr. Garner for his very valuable and interesting address.—Mr. FOLKER seconded the motion, which was carried by acclamation, and was briefly acknowledged by Mr. Garner.

Officers of Council.—The following appointments were then made. *President-elect:* H. Day, M.D., Stafford. *Vice-Presidents:* James Yates, Esq., Newcastle-under-Lyme, and James Weaver, L.R.C.P.Ed., Longton. *Secretaries:* R. Goodall, Esq., Silverdale, and V. Jackson, Esq., Wolverhampton. *Treasurer:* E. F. Weston, Esq., Stafford. A committee was also appointed, forming, with the officers named, the council of the Society. It was decided that the next annual meeting of the Society should be held at Stafford.

Dinner.—After the transaction of business, the members dined together under the presidency of Dr. Arlidge.

After the usual toasts, Mr. SOLOMON proposed "Success to the British Medical Association". He remarked, that that Association owed its origin to a feeling among country practitioners that due status was not allowed to them by their brethren in the metropolis. This led to a few of the principal practitioners in the midland counties forming what was called the Provincial Medical Association, of which Sir Charles Hastings was for many years the able President. As time rolled on, the Society became greatly enlarged; it took the title of the British Medical Association, and he was able, from certain knowledge, to say that it was admirable in all its workings. It had been of great service to the cause of science, it had banded together as brethren men whose pursuits had often a tendency to separation, and it had placed provincial practitioners in a fair position in relation to those of the metropolis. He believed the number of members far exceeded that of any other professional society, for there were between five and six thousand. He was delighted with the formation of this Branch; and he felt sure that, under the presidency of their able and learned friend Mr. Garner it would be highly successful.—Mr. FOLKER followed with the toast of the evening, "Success to the Staffordshire Branch of the British Medical Association". He observed, that the more frequently the medical men of the county or district met together, the better it would be for them and for society generally. The formation of the county Branch would not do away with the meetings of the medical men of North Staffordshire, for they were to be constituted a sub-branch, and the same course would be open to the profession in other divisions in Staffordshire, while arrangements would be made for aggregate meetings several times in the course of the year.—The VICE-CHAIRMAN gave the health of the President for the year. He said no man could come into contact with their dear friend Mr. Garner without being the better for it, and it was impossible to be associated with him in any way without coming to love him. His high character as a man, his reputation as an author, and his kindly feelings towards members of the profession, rendered it an easy task to propose this toast, but Mr. Garner's presence prevented him from giving full expression to his sentiments on the subject.

INDIAN MEDICAL SERVICE.—The undermentioned medical officers have passed the lower standard examination in the Hindustanee language:—Surgeon T. J. H. Wilkins, Indian Medical Department; Surgeon-Major T. Murtagh, R.A. Surgeon J. C. Trestrail, Bombay army, is permitted to retire from the Service on a pension of £456 per annum from the 1st October. Surgeon J. T. Welsh, M.D., in medical charge 2nd N.I. (Grenadiers), Bombay, is allowed furlough to Europe for two years, from date of embarkation in November.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Monday, October 26th, 1874.

Victor de Méric, F.R.C.S., President, in the Chair.

Syphilitic Infection.—Mr. Francis Mason exhibited a patient, aged 19, a male, who had been under his observation five weeks with a well marked infecting syphilitic sore over the great trochanter. He had a secondary eruption, and no other sore in any part of the body. The case could not be explained in any other way than infection from the clothing of the female.—The President regarded the sore as the result of secondary syphilis in the female.—Mr. Davy said that contagion had taken place probably from a discharge saturating the sheets, or the woman's night-dress, thus coming into contact with the man's thigh.—Mr. Henry Smith related a case where a large sore, with considerable swelling, existed in a married female, and had been mistaken for a tumour. The husband of the patient had a well marked tertiary ulcer of the tongue, and had evidently inoculated his wife, who, by mercurial treatment, was soon cured of the supposed tumour.

Congenital Deformity of the Hand.—Mr. Francis Mason showed a child, aged six months, whose right hand had two fingers only, and these were webbed. A silk thread was passed through the proximal end of the web, and allowed to remain for three weeks, when the perforation was found to be quite healed. The web was then divided, and the fingers kept apart by lint.

Subcutaneous Fracture of Exostosis.—Mr. Maunder showed a case of exostosis of the femur, treated by subcutaneous fracture by means of a gas-fitter's forceps. He had broken off the bony growth, which was situated in an inconvenient position; it remained loose for some time, but no sign of absorption appeared. Latterly, it had become reunited to the bone, but in a more convenient locality.—Mr. Davy said that this form of practice, as it was thoroughly subcutaneous, would expose the patient less to the dangers of pyæmia than open operation. The danger of reunion was, however, a great obstacle to its general adoption.

The Mutual Relation of Diseases of the Heart and the Respiratory Organs. By J. Milner Fothergill, M.D.—Wherever disease of the mitral valve existed, the blood-pressure in the pulmonic circulation was increased. The capacity of the thorax was often diminished by attacks of congestion, and dyspnœa resulted. The pulmonary vessels were thickened and dilated, and a similar condition existed in the muscular chamber of the right head. There was often a development of connective tissue in the lungs, which might possibly give strength to the lung-tissue and protect it from rupture in the violent respiration often found in mitral disease. There might be rupture of the blood-vessels and hæmoptysis. The nerves of the lung were not structurally altered, but congestion produced the dry harsh cough pathognomonic of cardiac disease. The effect of venous congestion were felt in the bronchial veins; and in advanced cases there was usually bronchorrhœa. Some were inclined to regard this as due to the increased pulmonary congestion, but the clinical fact was, that this so-called bronchitis was best relieved by digitalis, which increased the blood-pressure in the pulmonic circulation. The true pathology was fulness of the bronchial vein. The pleuritic effusion of advanced heart-disease was also due to venous fulness. At other times, disease of the respiratory organs induced changes in the right heart. A case recently recorded by Dr. A. W. Foot showed that as well as right side hypertrophy there was enlargement of the pulmonary artery and its valves, by a hyperplasia of cell-elements not passing into inflammation. Commonly, disease in the lung led to disease in the circulation, but, as Niemeyer pointed out, this was not the case in the diminished bulk of blood in pulmonary tuberculosis. Frequently, in acute disease of the respiratory organs, death threatened from exhaustion in the right heart, where there was pre-existing mitral disease. Attacks of bronchitis were very fatal, unless the right heart were remembered in the treatment. In the treatment of diseases of the heart and of the respiratory organs, the true pathological sequences must be borne in mind, and certain consequential changes foreseen and guarded against.—Dr. Thorowgood expected that venesection would have been mentioned among the remedies, for in cases of great cardiac dyspnœa, where the vessels were turgid with blood and the right heart embarrassed, great relief was obtained by venesection. He considered three methods of treatment to be useful, viz.:—Free bleeding from the arm; purgatives by sulphate of magnesia; and the use of digitalis.—Surgeon-Major Black strongly advised bleeding in these cases; and cited the instance of George IV, who, after even eighty ounces of blood had been extracted from him, was relieved by a fresh bleeding. He had found bleeding to be of no use in bronchitis after there was any amount of secretion in the bronchi.—Dr. Theodore Williams said that, before agreeing to bleeding in cases of pulmonary congestion from weakened circulation, he should be inclined to try every other remedial means. Free purgation acting on the liver, and, above all, the use of diuretics combined with mercurials would often relieve the circulation so satisfactorily that venesection was not necessary; and if bleeding were to be done at all, he much preferred the use of cupping-glasses to any other mode. The author had stated that emphysema did not take place unless the lung-tissue were structurally weakened; this was, however, not the case, for in the emphysema of children after hooping-cough or bronchitis no structural change necessarily took place, and the natural elasticity of the lungs enabled the temporarily dilated air-cells to recover themselves.—Dr. Wiltshire advocated bleeding, and cited a case where he had bled a man, aged 72, suffering from great dyspnœa and turgid vessels, with great relief and no danger.—Dr. Evans had used bleeding in the first stage of cholera with good effect.—Dr. R. J. Lee alluded to certain cases of sudden death from so-called "fatty heart". Many of these he had examined carefully *post mortem*, and found no hæmorrhage into the pulmonary tissue, but generally dry emphysema of the lung with pale bloodless tissue, or else considerable consolidation. The right side of the heart was largely dilated.—Dr. John Brunton noticed that clergymen in Scotland often died suddenly in their beds, and maintained that this was due to the great stress on their circulation caused by the long extempore sermons delivered without fresh breath being taken at the proper time, which caused pulmonary stasis and eventual dilatation of the heart.—Dr. Fothergill replied, and the meeting adjourned.

CORRESPONDENCE.

DRUNKENNESS AND DIPSOMANIA.

Sir,—Understanding that some misunderstanding has arisen regarding the reference to the late Mr. Dalrymple's Bill, in the abstract of my paper on Dipsomania, etc., published in the Journal for the 17th instant, I beg to say that, when I there speak of the "attempt at legislation" as a failure, I by no means, either in intention or in fact, apply this word to the Bill itself. That Bill was really never fully considered by the House of Commons. A day had been fixed for its discussion, but, owing to the ministerial crisis, when the last Government was in office, it was not brought up at the time appointed, and there was no other opportunity of submitting it to the House.

Permit me now to bear my testimony to the great value of Mr. Dalrymple's labours in connection with the question; and, though not quoted in the abstract, I also did so in my paper read at the recent meeting of the Social Science Congress. I may likewise add, that I had the pleasure of hearing him address a very influential public meeting in this city, in which he expounded his views on the subject. No one could listen to him without being struck with the ability, earnestness, and devotion he showed in seeking to carry out the object he had so deeply at heart. I believe that whatever measure may ultimately be carried—and I earnestly hope there may be one before long—must include very many of the proposals contained in his Bill, based as they are on the valuable evidence submitted to the Committee of the House of Commons, of which he was Chairman. I am, etc.,

Alex. Robertson.

Town's Hospital, Glasgow, October 24th, 1874.

Sir,—I almost fear that, as a lady, I am making a daring request in asking you to be good enough to insert this letter in your valuable Journal, and I hope the eyes which read it will be lenient and see through its weak words the longing desire to help to carry on my husband's (Mr. Donald Dalrymple's) work, his untiring energy in which has, humanly speaking, cut short his valuable life.

The importance of the subject is so great, that I feel that no right-thinking mind can fail to be interested in it. It is to try to cure the curse of habitual drunkenness which is in our midst, and which permeates every class of society, and which, alas! exists among my own sex also. During my husband's professional career, the subject was so thrust upon him, that, when he quitted his profession and entered Parliament, he determined to give his time and thought to what could be done to help those poor victims of intemperance, who longed to be saved from themselves.

Such sad heart-breaking details of the sin and ruin, of the degradation and wretchedness, produced by habitual drunkenness came to his knowledge, such appeals for help and entreaties to persevere in the work he had undertaken, were sent him, that I think it must be a stony heart indeed that could read them unmoved. He felt and knew the tremendous task he had set himself, but he was not a man to be daunted by difficulties, though some of the obstacles put in his way were hard for human nature to bear. He felt his work was for the good of his fellow creatures, and he kept his eye fixed on the goal, not minding the rough road that led to it; and, in the greatness of his humility, said, if he were only the stepping-stone in a work that he felt was for the good of the souls and bodies of his fellow-creatures, he should feel his Parliamentary life had not been in vain.

I have now the great pleasure and satisfaction of finding that earnest men are determined that his work shall not die out. In your esteemed JOURNAL has appeared the admirable address delivered by Mr. W. C. Garman, as President of the Birmingham and Midland Counties Branch of the British Medical Association. Last week, you reported an able speech from Dr. Robertson of Glasgow; this week, a valuable address on alcoholism has been made by Dr. Russell of Birmingham, which I trust will appear in print, as it is able and excellent in its condensation of the valuable evidence given before the Select Committee of the House of Commons on the Habitual Drunkards Bill.

I know, from those well acquainted with the House of Commons, that the strong backing of medical associations is the best outside support to those members of Parliament who, I hope, will have the courage and zeal to take up this great subject, to try to do away with a vice which is a scourge as well as a disgrace to our country. It is asked to make inebriate asylums lawful in our land, with the necessary power of detention to effect cures. In America, Canada, and Australia, these are already established with legal authority, and succeeding so well, as not only to be self-paying in a monetary point of view, but, what is still far better, yielding a large percentage of cures. Think what skeletons in the closet this sad vice causes in thousands of homes in our land, and think of the joy of such wretched ones restored to soberness and reinstated in the position of life they had lost, and, may I not add, even the joy of the angels in heaven?

May my weak voice find an echo in many strong manly hearts and minds of those of the noble profession to which my husband had the honour to belong. Mr. Donald Dalrymple's Bill for 1873 was most carefully revised, being drawn by one of the most eminent lawyers in London; it was down on the list to come on for its second reading on that unfortunate Wednesday when Mr. Gladstone half resigned, and the House adjourned for ten days; and it may not be generally known that all bills down for the adjourned days have to go to the bottom of the list, so that when the House reassembled the Education Bill and other Government business was obliged to be so pressed on, that only a day so late in the session was offered for the Habitual Drunkards Bill as rendered it useless for that session.

And, alas! *L'homme propose, mais Dieu dispose.*

I am, etc., S. DALRYMPLE.

Thorpe Lodge, Norwich, November 2nd, 1874.

PAYMENT OF MEDICAL OFFICERS.

SIR,—I quite agree with your correspondent, "An Assistant-Physician", that it is high time to reconsider the position which the medical and surgical staff—more particularly those members of them who are engaged in out-patient practice—bear to their respective hospitals. The altered condition of the working classes—of which Hospital Saturday is only one among many indications—demands it, and, in my opinion, the dignity and well-being of our profession demand it equally. But whether the remedy which "An Assistant-Physician" proposes is the best is, I think, open to a question.

I would venture to suggest that the British Medical Association should take up the subject. It is one of sufficient importance to the nation, to the hospitals, and to the profession at large, to be worthy of the consideration of the Council; and there can be no doubt that any recommendations coming from such a body would be received with attention by the managers of all the medical charities. We can scarcely expect simultaneous and concerted action, unless the matter be taken up by some powerful central body; and I suppose it would hardly come within the province of the College of Physicians and Surgeons.

I am, etc., WILLIAM FAIRLIE CLARKE.

October 28th, 1874.

SIR,—I fully endorse the letter, signed by "An Assistant-Physician", in your issue of October 24th, 1874. I have advocated the system of paying medical officers for all their public services, because—1. The honest labourer is worthy of honest pay; 2. Paid servants are undoubtedly the best; 3. The position assumed by some medica[illegible] of "God, I thank Thee that I am not as other men are", is in fact ridiculous.

Having experienced myself how much a young medical man stands in need of money assistance in his early career, I sincerely state that nothing short of modesty or gross affectation prevents a young surgeon from demanding fair pay for his onerous duties. The old custom of non-payment to medical men is (like many others) very unfair, and needs reform, especially now that the support of our medical charities is being diverted from private to co-operative sources; and I am at a loss to understand why the medical man—the very mainspring of good works—has been so ungraciously isolated. Notwithstanding that the British public affects surprise on hearing that the medical man is unpaid, I fully give it the credit of having traded in the cheapest market.

I am, etc., RICHARD DAVY.

33, Welbeck Street, W., October 1874.

MEDICAL DEFENCE ASSOCIATION.

SIR,—The failure of recent attempts to convict parties who are practising without legal qualification, has naturally excited a good deal of uneasiness among medical practitioners; and it is felt that medical registration is a delusion and a snare, if it do not protect the public and ourselves from those who are practising with foreign diplomas, or with no diploma or license whatever.

If the present laws be insufficient to check quackery, we should use all our influence in effecting such alteration in the Medical Acts as may be necessary to secure conviction and heavy punishment in all cases where it can be proved that unqualified persons are practising as physicians or surgeons.

The Medical Council has declined to assist us in this matter; we must, therefore, help ourselves. In my opinion, the best way of doing this will be to form an Association for the purpose of effecting reform in the Medical Acts, and protecting the interests of the profession by instituting legal proceedings against irregular practitioners in cases where conviction is likely to follow. Such prosecutions could be conducted much better by an Association than by private individuals. If any of your readers feel interested in the formation of such an Association, I shall be glad if they will communicate with me by letter at 7, King Street, Snow Hill, City, E.C.

I am, etc., GEORGE BROWN, M.R.C.S. and L.S.A.

London, November 2nd, 1874.

THE DISCUSSION ON CHOLERA IN THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

SIR,—Will you allow me to correct an apparent inaccuracy in your report of the discussion on a paper written by me "On the Pathology and Treatment of Cholera", which was read before the Royal Medical and Chirurgical Society on the 13th of October last?

Dr. Althaus is reported to have said that the theory advocated by me was not new. I understood Dr. Althaus to say, in effect, that the idea of the symptoms of the collapse of cholera being due to an abnormal condition of the sympathetic nerve was not new.

In my reply, I pointed out that the circumstance which first induced me to write on the subject, in 1869, was the circulation of a number of questions, one of which was, "Does collapse depend upon *paralysis* of the sympathetic nerve?" I said that I was aware many writers had held this view; but the whole object of my paper was to prove that the collapse depended principally on *irritation* and *hyperactivity* of the sympathetic system. I am not aware that any one brought forward this theory before myself.

It was generally admitted, at the discussion, that a good many of the symptoms of collapse might be occasioned by spasms of the arterial blood-system. The diarrhœa was thought to be caused by paralysis of the blood-vessels of the intestines; for Dr. Lauder Brunton has confirmed Moreau's statement, by repeated experiments, that division of *all* the nerves going to an isolated piece of intestine is followed by the secretion of a fluid just like the rice-water evacuations of cholera.

Kolmann has demonstrated that the right pneumogastric nerve supplies the whole of the small intestines. This is an *inhibitory* nerve, and has an antagonistic action to that of the sympathetic on the heart. Stimulation of the portion of the sympathetic supplying the heart is followed by increased forcible contractions; but stimulation of the vagus going to the heart may cause its stoppage in complete diastole. This having been proved, may not the two nerves act oppositely on the intestines? May not stimulation of the inhibitory vagus be followed by results much the same as if the sympathetic supplying the small intestines were paralysed? I hope before long to be able to make some extended observations on this point; and we may perhaps find that the peculiar choleraic voice, the vomiting and purging, depend on hyperactivity of the vagus; while the other symptoms of collapse may be caused by an abnormally excited action of the sympathetic.

I am, etc., A. R. Hall, Surgeon.
Artillery Barracks, Woolwich, November 2nd, 1874.

SKILLED MONTHLY NURSES.

Sir,—*Apropos* of your leading article of the 24th ult. on "The Mortality of Child-bed", I desire to draw attention to a state of things which, in my opinion, is likely to add greatly, if not to the mortality, at least to the inconvenience of child-bed.

In all other departments of nursing, no doubt great and real advance has been made during the last few years; but I venture to assert that the modern "trained" monthly nurse may, despite all her superior knowledge, be far less fitted for the lying-in chamber than a plain common-sensed countrywoman. Doubtless, knowledge is power; but that power may be exercised for ill as well as for good, and unfortunately the first effect of knowledge, if it be only superficial, as that of nurses must necessarily be, is, as we know, to disturb the moral equilibrium and, as a consequence, to produce a puffed-up and exalted state of mind.

Instead of lessening the restrictions put upon the patient, as by your article there seems strong ground for doing, the modern monthly nurse has increased the despotic character of her position, and claims to decide the most trivial wishes of her patient.

Such a system of tyranny must either subjugate the spirit of a woman, if she have any, or drive it to a state of annoyance and excitement which, under the peculiar circumstances, might lead to serious disturbance of the system, mentally as well as physically. Perhaps, however, the most injurious element in "trained" monthly nurses is, that, without any discretion, they are prone to engage the patient's attention, it may be from the time of her confinement, with recounting stories of their hospital experiences, and with bringing to her knowledge all kinds of "private" ailments to which, under other circumstances, even the feminine mind should be a stranger.

Of the above state of things, I have lately had a melancholy instance. A lady, confined of her first child, was attended by a London trained nurse, who was possessed of a thorough knowledge of her work, but without any tact or discretion. She exercised her powers with unrelaxing severity, and to the most harmless wishes of her patient seemed to delight in offering objections. To a person of a yielding disposition, this treatment might only have increased her good opinion of the nurse; but, in this case, the patient was a sensitive and high-spirited lady, and she felt humiliated by being continually obliged to yield up her will in what she knew was a perfectly harmless wish. In a few days after her confinement, I noticed an excitement of manner, and she told me, when the nurse left the room, that she always had a battle with her to get *my* injunctions carried out, and which she always picked to pieces and, in the end, grudgingly performed. She said, moreover, that the nurse told her all kinds of "filthy" stories, which much alarmed her as to her own condition, and that she treated her in an off-hand manner, "as though she was a poor woman in a hospital".

Despite my remonstrances with the nurse, her manner remained equally improper, and, when I saw that my patient's excitement daily increased, and that, to use her own expression, the appearance of the nurse at night was "like a nightmare" to her, I at once took the step of dismissing her, but it was too late to prevent the development of puerperal mania, which ultimately assumed an aggravated and protracted character. In the absence of other causes, I cannot but attribute this result to the wounded pride and excited fears caused by the conduct of the nurse. In fact, it had been a "reign of terror" to her, and that which should have been the abode of peace and quiet, as a lying-in room should be, was converted into a chamber of contention and disquiet.

I sincerely trust that my experience in this matter has only been of the exceptions to rather than of the general type; and, had I based my opinion on my own knowledge, I confess I should have shrunk from casting any imputation upon so valuable a class of people; but not only do I hear the same expression of feeling from other members of our profession, but also from many of the public to whom I have spoken on the subject. At the same time, I would not be understood to mean that a monthly nurse should not be trained and skilled; but she must be wise and discreet, too; and, if the latter qualities are found to be lacking often, it behoves us, in the interest of our patients, to exert more our authority in the lying-in chamber; and, where we have reason to suspect her want of discretion and kindness, we should not shrink from seriously remonstrating with her.

Moreover, it would be well, I think, if those under whom the nurses acquire their training would strive to inculcate a humility of mind and a kindliness of manner, as well as caution them against telling the patient too much about herself at least in the early days of her confinement.

The experience of Dr. Goodell in America is highly interesting, and must, I think, tend to some reform in our time-honoured routine of puerperal treatment. I am, etc., Miles A. Wood, F.R.C.S.
Ledbury, November 1874.

THE ASPIRATOR IN TAPPING THE CHEST.

Sir,—I had no idea, when I wrote the letter published in your issue of August 22nd last, that I should be drawn into a long controversy on the use of the aspirator. I simply wished to state that instruments similar to that which Mr. Godrich recently introduced to the notice of the profession had been manufactured by various makers many months previously, and to record a clinical observation based on extensive experience in the use of an aspirator with a guarded trocar—viz., that, in aspiration of the chest, a protected or guarded trocar does not wholly prevent hæmorrhage.

This observation has been confirmed by Dr. Page and others of your correspondents, all of whom agree in the opinion expressed in my first letter, that the hæmorrhage is due to the force of suction, and not to injury of the tissues from the point of the trocar, as Mr. Godrich supposed.

What led me to assume that Mr. Godrich wished to throw doubt on my statement as to the length of time that the guarded trocar had been in use in this hospital, was that, in his letter of August 19th, he says, "If, as Mr. Brown in your last week's Journal asserts, guarded trocars have been manufactured more than twelve months, may I ask," etc. It appeared to me that, by using the word "if", Mr. Godrich intended to imply that my statement was open to doubt. As, however, he disclaims any such intention, another word on this point is needless.

And now as to the expression "complete exhaustion, natural to all serous cavities *plus* the suction-force of the aspirator," which appears in my letter of September 23rd, and to which objection has very properly been taken. It was, it should be remembered, Mr. Godrich himself who first propounded the law that "the natural state of all serous cavities is one of complete exhaustion". A moment's consideration would have shown the fallacy of such an idea; but, unfortunately, I accepted it without hesitation. What I meant to say was this: Let the condition of the serous cavity be what it may, the suction-power of the aspirator is a force superadded, which varies in amount according to the size of the instrument and the extent to which the exhaustion is carried. If, after what has been said by myself and others, Mr. Godrich still adheres to his opinion that "no amount of suction would be sufficient to rupture any vessels, however delicate", it will be useless to prolong the discussion. Practical experience of the use of the instrument will, I have no doubt, cause him to alter his belief.

Mr. Godrich complains that I have furnished no description of the aspirator we use in this hospital. The chief reason for my not doing so is, that Dr. Sansom exhibited the instrument and explained its action to the members of the Medical Society of London as long ago as November 24th, 1873. Even if the profession had not already had an opportunity of acquainting themselves with the instrument, I think the makers, Messrs. Krohne and Sesemann, should advertise their own manufactures. I shall, though, be very pleased to have an opportunity of showing the instrument to Mr. Godrich or any other gentleman interested in aspiration, if they can make it convenient to call here any day except Saturday between one and three o'clock in the afternoon.

I am, etc., George Brown, M.R.C.S.
North-Eastern Hospital for Children, October 27th, 1874.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Northampton.—Mr. Haviland has recently prepared an elaborate report on the sanitary condition of his very extensive district. It contains a large amount of valuable statistical information, illustrated by a series of maps, coloured so as to give at a glance the relative mortality from certain specified causes in each registration district within the area. For some time past, the excellent water with which the town of Northampton is provided has been complained of, on account of the decided chalybeate taste which has characterised it, and which, after investigation, was found to be due to the corrosive action of the water upon the iron columns supporting the roofs of the reservoirs in which it is impounded. Every free surface has now been completely covered with Portland cement, and the result is, that the taste complained of has been entirely removed. The division of sanitary powers in Northampton, as also in some other towns, between the Town Council, as the sanitary authority under the Public Health Act, 1872, and a body of Town Commissioners appointed under a special Act, is found to be seriously detrimental to the sanitary interests of the borough. In Northampton, the sewers are in some respects most imperfect, and one main culvert is so small, that, under the pressure of so insignificant an amount of rain as 0.61 inch in one day, it has burst in several places and has flooded the common, which is the town recreation ground, with raw sewage. This is not the first time this has occurred; indeed, on a former occasion, the Commissioners, on the application of the Town Council, were ordered by the borough magistrates to make such structural alterations as would render the recurrence of such a nuisance impossible. Months have, however, since passed, and Mr. Haviland reports that nothing has been done. With sewage thus pent up in a main outfall, every facility is given for the escape of noxious gases in the town; but the recommendations to provide an efficient system of sewer-ventilation are also disregarded. In dealing with the Wellingborough district, Mr. Haviland refers to a case which, in his opinion, tends to show that enteric fever is contagious. As a rule, there can be but little doubt that the intensely poisonous nature of the evacuations of enteric fever patients is much underrated, and the subsequent spread of the disease is in reality due to the want of the adoption of such steps as would effectually have prevented the infection of linen, milk, soil, drains, privies, etc., by their means, and not to infection in the sense in which this term may be employed when speaking of such diseases as scarlet fever or of typhus. Enteric fever is a highly infectious disease, and this fact cannot be too strongly expressed; but we have good grounds for believing that the contagion is limited to the bowel-evacuations. In the rural portions of this district, the adoption of a modified ash-closet is strongly recommended, and, in connection with it, the importance of a properly organised system of scavenging is referred to. The two must, in our opinion, go together; for nothing is more evident than that, if nuisance from excremental and other refuse matter is to be prevented, each sanitary authority must control its own scavenging.

Oswestry.—Pleasantly situated on an eminence, with a subsoil generally consisting of gravel and favourable to drainage, and possessing a good supply of water, the district of Oswestry ought to be one of the most healthy in the kingdom. Were it not for an excessive mortality from the zymotic diseases, it would present the low death-rate of 16.32. The deaths from zymotic causes amount to 2.2 per 1000. Scarlet fever is the prevailing epidemic. This is easily accounted for, as, according to the report of Dr. Beresford, the medical officer, ash-heaps mixed with decayed vegetable matter, privies overflowing, and filthy pigsties, defective drainage, cesspools, and open ditches exist in almost all parts of the district. Added to this, many of the cottages are mere hovels scarcely fit for habitation, and overcrowding exists to a very great extent. In one instance, there were three families, numbering six adults and seventeen children, under one roof. The night mine-workers use the beds by day and *vice versâ*, and the beds in consequence are never empty. In another case, an old woman, her two sons with their wives and children, occupied one cottage. In other cases, grown-up sons and daughters with their parents occupied but one sleeping room in common. Under the clauses of the new Act, the sanitary authorities have the power to prevent overcrowding even by the members of one family. Numerous dwellings are in course of erection, however, in different parts of the district, so that in the course of time the last named evil may be remedied. Dr. Beresford is quite sure that tramps are the cause of a vast amount of zymotic disease in the country, such disease being carried from fever-dens in the large towns and other places and disseminated through the country. It was in Oswestry that the plan of bathing and fumigating clothes was first introduced with a remarkable benefit to the union and the tramps themselves; for, whereas, prior to the introduction of these arrangements, the deaths among tramps from zymotic causes were at the rate of about 5.5 per 1000 during four years, they are now but 2.2 per 1000. Defective sanitary arrangements are, however, by no means confined to the houses of the poor, but exist in the mansions of the district in the same proportion. The inspector reports that, out of four thousand houses which he had visited, nuisances of some kind existed in quite one-half of them. Active measures are being taken, however, in all parts of the district, and in due time, doubtless, will bear good fruit in every way.

APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

Brown, Fergus Malcolm, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Wansford District of the Stamford Union.

Davies, William M., M.B., appointed Medical Officer to the Huntingdon Union Workhouse.

Dawson, Frederick, jun., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Blakesley District of the Towcester Union.

De Renzy, Thomas, L.K.Q.C.P.I., appointed Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Arthurstown Subdistrict of the Fethard Dispensary District of the New Ross Union.

Gray, Clement F., M.R.C.S.Eng., appointed a Medical Officer for the Workhouse of the Newmarket Union.

Hicks, John Abernethy, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for No. 6 District of the Bath Union.

Johnstone, Henry Maturin, M.D., appointed Medical Officer, Public Vaccinator, etc., for the Stranorlar Dispensary District of the Stranorlar Union.

M'Laren, William, M.B., appointed Parochial Medical Officer and Public Vaccinator for Loanhead, Edinburghshire.

Newton, Henry W., L.F.P.S.Glasg., appointed Medical Officer for No. 3 District of the Newcastle-on-Tyne Union.

Tait, George Walter, M.R.C.S.Eng., appointed Medical Officer for the Knowle District of the Solihull Union, Warwickshire.

Warner, Francis, M.D., appointed Medical Officer for the Yardley District of the Solihull Union.

Vaccination Regulations.

Sir,—I would be very much obliged if you could give me information on the following case at an early date. About a fortnight ago, a friend brought a child to me from Portlethen, a distance of about twenty miles, to be vaccinated. I performed the operation, and asked him to apply to a medical practitioner in his own neighbourhood to examine the child's arm if the vaccination had been successful, and get him to certify. The vaccination was successful, and I understand he applied to a medical man, who refused to sign, on the ground that he did *not perform* the operation. Is there no provision for the case of a medical man who, having performed the operation, does not live till it could be known whether it had been successful or not? Can no one certify in that case? or, if a person who has had a child vaccinated at John o' Groat's, removes before a week to Land's End, must the medical practitioner follow them there to examine the child and certify? I think that any qualified medical man who sees a child's arm at the right time can tell if it have been properly vaccinated or not, and should be allowed to certify upon that, as well as upon any other thing on which he is an expert.

Fettercairn, Oct. 20th, 1874. I am, etc., W. Stephen, M.D.

⁂ Our correspondent's case seems to have been in Scotland, and we would not speak as confidently of the working of the Scotch certificate-system as of our own; but on this side of the Tweed difficulties such as he describes should go for very little. For (1) though the law devolves on the practitioner who vaccinates to give the official certificate of success, he—if the child be carried away before inspection time arrives—need not afterwards hesitate to give his certificate if he receive from any legally qualified practitioner of the place to which the child has been moved a note that the vaccination has been successful; and (2) in every district the public vaccinator has authority to give legally valid certificates of successful vaccination to persons whom, though not vaccinated by himself, he ascertains to have been somehow successfully vaccinated. *Pace* our correspondent, it will, of course, be seen that this power (which might easily be abused) must of necessity be restricted to persons having official responsibility.

MILITARY AND NAVAL MEDICAL SERVICES.

Naval Medical Compassionate Fund.—At the quarterly meeting of the directors of this fund, held on October 13th, Sir Edward Hilditch, Inspector-General, in the chair, the sum of £78 was distributed among the various claimants.

GRIEVANCES OF NAVAL MEDICAL OFFICERS.

Sir,—Some months have now elapsed since a deputation from the British Medical Association waited on the Lords of the Admiralty to point out the grievances that were felt by all classes of naval medical officers, and still not a single step has been taken to remedy them.

Promises of their lordships' favourable consideration, freely made, have become hollow and faithless, and the suggestions of a representative body of one of the greatest and most honourable associations in the kingdom have fallen upon deaf ears.

Matters are becoming worse: new men refuse to join, the few who do being of the stamp described in your issue of last week by "Once an Unsuccessful Candidate".

Of the eight candidates who were ordered to report themselves at Netley on October 1st, two only *passed* for the navy, and one of those, on further consideration of his prospects, had the good sense to be absent at the first "roll call", and still remains so.

Of course, so long as the present number of medical officers by a continual grind, are compelled to carry on the duties of the department, the authorities naturally will not be very anxious, especially when they can console themselves by the thought that they are saving from £6,000 to £8,000 a-year by the list being forty below its standard.

The two great naval medical establishments at Portsmouth and Plymouth are, as you may see by the navy list, continually below their strength.

Staff-surgeons (second class) are content to accept appointments formerly held by surgeons, causing a precedent (and precedents in this line are dangerous) which will eventually cut the latter out of coveted billets.

Promotion is miserably slow, fifteen years being now the average time required to attain the high sounding title of second class staff-surgeon, a title as irritating to those who bear it as it is utterly devoid of meaning. Those at the top of the list refuse to go, whilst those at the bottom, *vi et armis*, must remain. More resignations are being tendered, but refused, and more still are about to be which cannot.

The wheels of the machinery are clogged and require repair, the Admiralty being made fully aware of the defects, upon them rest the blame, if, by their obstinacy, they still refuse to listen to the voice of reason. I am, etc., HAUD IMMEMOR.

ARMY MEDICAL APPOINTMENTS.

Adsetts, Staff-Surgeon-Major J., appointed to the medical charge of the 2nd Battalion 23rd Regiment, at Gibraltar,

Bartlet, Alexander E., to be Surgeon-Major, *vice* George Allan Hutton, retired on temporary half-pay.

Ferguson, Surgeon-Major William, from half-pay, to be Surgeon-Major, *vice* Patrick P. M'Dermott, retired on temporary half-pay.

Heath, Staff-Surgeon R. E., M.D., appointed to medical charge of the 88th Regiment.

Ramsay, Surgeon-Major Thomas, has assumed medical charge of the Royal Engineers at Aldershot.

Whittaker, Surgeon-Major J. H., appointed to the medical charge of the 2nd Battalion 20th Regiment, at Preston.

Wikeley, Surgeon-Major C. E., has assumed charge of the Second Station Hospital at Aldershot.

OBITUARY.

EDWIN LANKESTER, M.D., LL.D., F.R.S.

It is with extreme regret that we chronicle the death of Dr. Edwin Lankester, Coroner for Central Middlesex, at an age when the full possession of his rare mental powers and great bodily activity gave promise of many years' useful service in the discharge of his duties, and in the prosecution of those sanitary and social reforms in which he took a lively interest. Up to the last few months, Dr. Lankester had been in excellent health, but since that time he had been suffering from the combined affections of carbuncle and diabetes, which terminated in his death on October 30th.

Dr. Lankester was born April 23rd, 1814, at Melton, Suffolk, and was educated at Woodbridge, where he was articled to the late Mr. Samuel Gissing, surgeon. He studied medicine from 1834 till 1837 at University College, London, and in the latter year was made a member of the College of Surgeons and Licentiate of the Apothecaries' Society. In 1839, he visited the Continent, and graduated at Heidelberg; in 1843, he became Lecturer on Materia Medica and Botany at the School of Medicine adjoining St. George's Hospital; in 1844, he was appointed Secretary to the Ray Society; and, in 1845, was elected Fellow of the Royal Society. In 1850, he was appointed Professor of Natural History in New College, London; in 1851, he received the degree of LL.D. from Amherst, United States. In 1853, he became Lecturer on Anatomy and Physiology at the Grosvenor Place School of Medicine; in 1858, Superintendent of the Food Collection at the South Kensington Museum; in 1859, President of the Microscopical Society; in 1862, Examiner in Botany to the Science and Art Department at South Kensington; and was elected Coroner for Central Middlesex in 1862. Dr. Lankester contributed to the *Naturalist*, *Annals of Natural History*, to the *Pharmaceutical Journal*, the *Penny Cyclopædia*, and *Reports of the British Association for the Advancement of Science*. He wrote *Natural History of Plants Yielding Food*, and *Memorials of John Ray*, published in 1845; edited the *Correspondence of John Ray*, in 1846; contributed the article "Rotifera" to the *Cyclopædia of Anatomy and Physiology*, and a "Report on the Progress of Organic Chemistry", to the *Companion to the British Almanack*, in 1847; and published a translation of Schleiden's *Principles of Scientific Botany* in 1849. Dr. Lankester, who contributed reviews of medical works and papers on Natural History to the *Athenæum*, became joint-editor of the *Quarterly Journal of Microscopical Science* in 1853; he also wrote "Botany" in Hughes's *Reading Lessons*, and, by the command of Her Majesty, edited the *Natural History of Dee-side*. He translated Küchenmeister's *Animal Parasites* in 1859; contributed, in conjunction with Dr. Letheby, the article on Sanitary Science to the *Encyclopædia Britannica* in 1859; published *Half-hours with the Microscope; Two Addresses to the Microscopical Society of London; A Guide to the Food Collection at the South Kensington Museum; A Course of Lectures on Food*, and *A Course of Lectures on the Uses of Animals;* and has delivered Lectures on Natural History, and its various branches, at the Royal Institution; several courses on Physiology and Botany at the London Institution; and several courses on Botany before the Royal Botanical Society of London. As Coroner for Middlesex, he has published nine "Annual Reports" in the *Proceedings of the Social Science Association;* and, as Medical Officer of Health for St. James's, Westminster, has published sixteen "Annual Reports". In 1866, he edited the *Journal of Social Science*, and published a small work entitled *Cholera; What it is, and how to prevent it.* In 1867, appeared *Good Food; What it is, and how to get it;* in 1868, *Vegetable Physiology;* in 1869, a *School Manual of Health;* and, in 1870, *What shall we Teach, or Physiology in Schools;* besides several articles in *Nature* on scientific subjects.

He continued his literary and professional career until 1862, when, on a vacancy occurring in the office of Coroner for Central Middlesex, Dr. Lankester was elected to the post by a majority of the constituency, and was also chosen by the Vestry of St. James's, Westminster, as their officer of health. In these offices, Dr. Lankester never ceased to urge the necessity of attention to sanitary laws, and was an uncompromising antagonist of all adulteration of articles of food. It was his praiseworthy custom to diffuse information, especially among the poorer inhabitants, as to the best mode of grappling with epidemics; and we believe he originated the practice, on the outbreak of any such disorder, of recommending the vestry to have handbills printed, giving concise instructions as to the right course to be adopted to avoid infection or contagion, and to grapple with disease when it had appeared. His reports to the Vestry of St. James's deal largely with sanitary improvement, and chronicle a large amount of work done in the examination of articles of domestic consumption, especially since the passing of the late Act on adulteration.

In many other matters relating to the public and private health of the community, Dr. Lankester contributed practical and valuable information, in the form of letters, reports to various journals, etc., and was, indeed, indefatigable in his endeavours to overcome existing sanitary evils and to bring about a better state of things, not only in his own special sphere of duty, but throughout the country generally.

Dr. Lankester was a man of very genial temperament, and his amiability of disposition and kindness of heart endeared him to a large circle of friends, who mourn his loss and deeply sympathise with the sorrowing family who have sustained so sad a bereavement.

JOSEPH SWAN, F.R.C.S.

We have to record the death of this eminent anatomist and surgeon, which took place at Filey, at the advanced age of 83, on October 4th. Mr. Swan commenced his medical studies at St. Thomas's Hospital in 1810, as a pupil of Mr. Cline, at that time surgeon to the hospital. He was admitted a member of the Royal College of Surgeons in 1813, and was made a Fellow in 1843. Mr. Swan gained more collegiate honours than any other surgeon; for, in addition to the two Jacksonian prizes of 1817 and 1819, the Collegial Triennial Prize of fifty guineas was awarded to him in both 1822 and in 1825 for his valuable anatomical and physiological researches on the nervous system. He was formerly Surgeon to the Lincoln County Hospital. In 1829, he removed to London, and commenced practice in Tavistock Square. He was elected a member of the Council of the Royal College of Surgeons in 1831, and, at the time of his decease, was the senior Fellow of that institution. Mr. Swan had been a visitor to Filey for nearly forty years, and was buried in the parish church there on October 8th.

JAMES OGDEN FLETCHER, F.R.C.S.Eng., M.D.

Dr. J. Ogden Fletcher, born at Prestwich in Lancashire in the year 1824, first began his professional career as a pupil of Dr. John Goodman, then residing in Salford. After a brief stay with Dr. Goodman, he was apprenticed to his uncle, the late Dr. James Ogden, at that time one of the leading practitioners in Rochdale; and subsequently, when Dr. Ogden retired from general practice and came to reside in Manchester, he completed his apprenticeship with Mr. W. B. Lumb, who succeeded to the practice. During this period, Dr. Fletcher displayed a strong liking for scientific pursuits, especially for the study of chemistry, and ever after took an interest in the progress of science. He also paid much attention to botany, and made a collection of all, or nearly all, the plants indigenous to the southern part of Lancashire. After his apprenticeship, he became a pupil at the Manchester School of Medicine, where his diligence and his acquirements secured for him a prominent position, whilst his genial disposition and willingness to aid his fellow-students made him a general favourite.

About the time when Dr. Fletcher commenced his career as a general practitioner in Manchester, fever of a low type was extensively prevalent. Dr. Fletcher was appointed Medical Superintendent to one of the temporary hospitals established for the reception of fever-patients in different parts of the city, and not only applied himself diligently to the discharge of his duties in the way of organising and prescribing, but endeavoured, by frequent inspections of fatal cases, to elucidate the pathology of typhoid fever as it affected the intestinal canal. During one of these inspections, he himself was seized with fever, and was delirious for two or three weeks, but subsequently made a good recovery. On the establishment of the Chatham Street School of Medicine, he was appointed one of the Lecturers on Anatomy, in conjunction with his brother Dr. Shepherd Fletcher. Dr. Fletcher continued to fulfil the duties of Teacher of Anatomy until the union of the two medical schools in Manchester.

In 1865, he was appointed Consulting-Surgeon to the Manchester, Sheffield, and Lincolnshire Railway Company. After two or three years' experience in this capacity, and after the investigation of a great number of cases of injury occurring upon other lines, and also under other conditions than those of railway travelling, he published his book, *Railways in their Medical Aspects*. In this work he tabulated the more important facts relating to 175 patients injured in railway accidents, and chiefly in collisions. Among other papers contributed by Dr. Fletcher, was a very interesting one on Exophthalmic Goître (BRITISH MEDICAL JOURNAL, vol. i, 1863, p. 529), in which he relates five cases of recovery.

Dr. Fletcher for some years took an active part in the management of the Manchester Medical Society, of which, in 1869, he was the President: he also took much interest in the Medico-Ethical Society.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE DEMONSTRATORSHIP OF ANATOMY.—The stipend of the present Demonstrator of Anatomy, H. S. Wilson, M.D., has been increased from £150 *per annum* to £250 *per annum* out of the University chest; the increase to begin from Michaelmas, 1874.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Fellows on October 29th.

Carter, Thomas Albert, M.D., Leamington
Green, Thomas Henry, M.D., Wimpole Street
Robertson, William Tindal, M.D., Nottingham
obinson, Frederick, M.D., 47, Claverton Terrace, S.W.

The following were admitted Members.

Ewart, William, L.R.C.P., Leinster Square
Godson, Clement, M.D., Upper Brook Street
Greenfield, William Smith, M.B., Wimpole Street
Johnston, James, M.B., Birmingham
Mahomed, Frederick H. H. Akbar, London Fever Hospital
Newman, Alfred Kingcome, M.B., Guy's Hospital
Sawyer, James, M.D., Birmingham

The following were admitted Licentiates.

Alderton, Thomas Gunton, West London Hospital
Andrews, Samuel, New Southgate
Byrne, John Joseph, Cheetham, Manchester
Edwards, Octavius, Chaxhill Lawn, Gloucester
Forty, Daniel Herbert, Guy's Hospital
Hall, Frank Algernon, St. Bartholomew's Hospital
Jalland, Robert, Horncastle
Lamb, William Henry, Guy's Hospital
Payne, Henry Peter, Bournemouth
Roeckel, Waldemar Joseph, Bath
Stephens, Augustus Edward R., Cheltenham
Tyson, William Joseph, Guy's Hospital

The following candidate, having passed in Medicine and Midwifery, will receive the College Licence on his obtaining a qualification in Surgery recognised by this College.

Hobson, John Morrison, Wynell Road

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 29th, 1874.

Collier, Alfred Henry, Westminster Hospital
Treharne, John Llewellyn, Weston-super-Mare

The following gentlemen also on the same day passed their primary professional examination.

Baker, Benjamin Russell, St. Thomas's Hospital
Hallowes, Miller Coleman, St. Bartholomew's Hospital
Lory, William Manley, University College

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABBEYLEIX UNION, Queen's County—Apothecary for the Workhouse: £25 per annum.

BAILIEBOROUGH UNION, co. Cavan—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Crossbane Dispensary District. Application, 7th November, to Patrick Morgan, Hon. Sec., Lisnabantry, Virginia.—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Shercock Dispensary District: £70 per annum, and fees. Applications, 11th inst., to Stephen Radcliff, Hon. Sec.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road—Assistant Surgeon. Application, 7th November, to the Secretary.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY—Resident Medical Officer: £100 per annum, board, etc., or £120 per annum, lodging, etc., without board. Application, 16th inst., to Howel Howells, Secretary.

COVENTRY UNION—Medical Officer for No. 3 District: £63 per ann., and fees.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon. Application, 12th instant, to W. J. Gant, Secretary.

ENNISCORTHY DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.

FRIENDLY SOCIETIES' MEDICAL INSTITUTE, Northampton—Out-door-Assistant: £120 per annum. Applications, 14th instant, to Secretary.

HINCKLEY UNION, Leicestershire—Medical Officer for the Earl Shilton District: £30 per annum, and fees. Application, 7th instant, to Samuel Preston, Clerk.

HUDDERSFIELD INFIRMARY—House-Surgeon. Applications on or before 23rd instant.

JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer: £120 per annum, furnished rooms, etc. Applications to the Rev. P. A. Le Feuvre, Honorary Secretary.

LAMBETH, Parish of—Medical Officer for Infirmary. Applications on or before 9th instant.

*LAUNCESTON RURAL SANITARY DISTRICT—Medical Officer of Health.

*LAUNCESTON URBAN SANITARY DISTRICT—Medical Officer of Health.

MAGHERAFELT UNION, co. Londonderry—Medical Officer for the Workhouse, and Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Magherafelt Dispensary District: £80 per annum, and £115 per annum, and fees, respectively.

MALE LOCK HOSPITAL—Dispenser. Applications on or before 19th instant.

MARKET BOSWORTH UNION—Medical Officer and Public Vaccinator for the Desford District: £30 per annum, and extras. Applications, on or before 24th instant, to T. B. Fitch, Clerk, Congerstone, Atherstone.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Medical Superintendent: £350 per annum to commence, house, etc. Application, 12th instant, to John Robinson, Clerk to Visitors.

PENRITH UNION—Medical Officer for the Kirkoswald No. 1 District.

QUEEN'S HOSPITAL, Birmingham—Resident Secretary and Medical Superintendent (unmarried): £150 per annum, board, and lodging. Applications, 25th instant, to the Chairman of the House Committee.

ROYAL INSTITUTION OF GREAT BRITAIN — Fullerian Professor of Physiology.

ST. MATTHEW'S, Bethnal Green—Resident Medical Officer for Workhouse: £200 per annum, with board and residence. Applications, with testimonials, on or before 9th instant.

ST. SAVIOUR'S UNION (Northern District)—Dispenser: £60 per annum, furnished apartments, coals, and gas, and an allowance of 12s. per week in lieu of rations. Applications, with not less than three testimonials, before 12th inst.

SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich—Visiting Surgeon. Application, 7th instant, to H. C. Burdett, Secretary.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

WALSALL UNION, Staffordshire—Medical Officer for the Workhouse and the Borough District: £80 and £45 per annum respectively.

WELLS (Norfolk) URBAN and PORT SANITARY DISTRICTS—Medical Officer of Health: £15 and £5.

WEST LONDON HOSPITAL, Hammersmith—One House-Surgeon. Applications, 9th instant, to T. Alexander, Secretary.

WEST MIDDLESEX—Coroner.

WHITEHAVEN UNION—Medical Officer for the Lamplough District: £30 per annum.

WORCESTER UNION—Medical Officer: £65 per annum.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

ANDERSON, Tempest, M.B., appointed Surgeon to the York Eye and Ear Institution, *vice* A. Ball, M.R.C.S.Eng., resigned.

CRAWFORD, William, M.B., appointed Assistant House-Surgeon to the Carlisle Dispensary, *vice* J. H. Callery, L.R.C.S.I., resigned.

SWEETING, George B., M.R.C.S., appointed Surgeon to the West Norfolk and Lynn Hospital, *vice* *J. Lowe, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

JONES.—On October 31st, at Brookside, Llanfyllin, Montgomeryshire, the wife of J. T. Jones, M.R.C.S., of a son.

HOSPITAL SATURDAY.—The total amount collected, so far as at present can be ascertained, is about £5,800.

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* The Local Government Board has recommended that one Medical Officer of Health shall be appointed for these two districts.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Theodore Williams (for Dr. Redtel), "A Case of Transfusion of Lamb's-blood in Phthisis"; Dr. Richardson, "On Specific Forms of Purpura Hæmorrhagica".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Samuel West, "On the Elimination of Urea in Certain Diseases".

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Pye-Smith, "A Case of Stricture of the Colon".—Epidemiological Society, 8 P.M. President will deliver the Opening Address.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Barwell, "Notes of Two Cases illustrative of Reflected Irritation: I. Unilateral Trismus; II. Severe Epilepsy cured by Excision of a Neuroma"; Dr. Buzzard, "A Case of Recovery from Melancholia after Four Years' Refusal of Food and Obstinate Silence"; Mr. Hulke, "Case of Poisoning by Chloral".

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

AN ASSOCIATE asks; "Is there any sick club or friendly society connected with the medical profession which, for an annual payment, guarantees pecuniary relief to medical men in time of sickness? If not, which is the best of the many friendly societies to join?"

ERRATUM.—In Mr. Myers's letter on the Contagious Diseases Acts in last week's JOURNAL, the concluding four lines of the second paragraph should have been as follows.

"In the following three months, only five cases of syphilis were admitted; viz., primary sores contracted in the district, and one of gonorrhœa contracted out of the district. *Thus, during the whole period, only six of the cases of primary syphilis and two of gonorrhœa were contracted in Windsor.*"

EXEMPTION OF SURGEONS FROM JURIES.

SIR,—In your JOURNAL of September 19th (in reply to a question of mine), you stated that a qualified surgeon could claim exemption from serving on juries. My name being placed on the jury-list, I claimed exemption, from being a registered M.R.C.S.E., L.S.A., etc.; but they would not grant the exemption, because I was not in *actual practice.* Shall I be compelled to serve on the jury now that my name is retained on the list? and can the parish authorities make me serve as overseer, etc.? I am, etc., P. C. S.

⁂ Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, if actually practising as surgeons; and all apothecaries certificated by the Court of Examiners of the Apothecaries' Company; and all registered medical practitioners and registered pharmaceutical chemists, if actually practising as apothecaries, medical practitioners, or pharmaceutical chemists respectively, are exempt from serving on juries by the Act 1870. Members of the College of Surgeons of London and Licentiates of the Apothecaries' Society are exempt as such from serving the office of overseer.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

DR. W. H. ASHLEY.

THE professional career of the late William Henry Ashley, M.D., of 28, Ladbroke Square, W., has recently closed, under circumstances which may be permitted to justify, in a more than ordinary degree, the present appeal to the generous sympathy of the medical profession on behalf of the widow and ten children left all but entirely destitute at his decease.

From 1840 till the present year, his course had been that of a medical man in ordinary metropolitan practice, adorned by many sterling qualities, which secured respect and honour from those who knew him; while his exemplary conduct in each relation of life, and his genuine goodness of heart, were shown from time to time by frequent acts of self-sacrificing kindness. But his latter years were clouded by growing infirmity, leading to loss of practice, distressing anxiety, and domestic privation, succeeded finally by insidious and deep-seated disease, which assumed its fatal character during the earlier half of the present year.

Many a brother in his profession will be able to interpret all the unspoken sufferings of such a course, and its sorrowful close. Those sufferings were bravely and uncomplainingly borne, and are now at an end; but they plead for sympathy towards the fatherless and the widow, who have shared in the manifold and increasing privations, to which allusion has been made, while he lived, and are left destitute now he is gone. His failing powers were devoted to the education of his children; and a fund has been opened by their friends in the medical profession, to make immediate provision for the wants of the younger ones, and for putting the elder sons and daughters forward in life.

Subscriptions will be received and duly acknowledged by the Treasurers of the Ashley Fund: Rev. John Philip Gell, Vicarage, St. John's Notting Hill, W.; George Nelson Emmett, Esq., Solicitor, 14, Bloomsbury Square, W.C.; E. Hart Vinen, M.D., 17, Chepstow Villas, Bayswater; Charles M. Frost, Esq., 47, Ladbroke Square, Notting Hill; F. Le Gros Clark, Esq., F.R.S., The Thorns, Sevenoaks, Kent.

The following subscriptions have been already received.

	£	s.	d.
The British Medical Benevolent Fund	20	0	0
F. Le Gros Clark, Esq.	21	0	0
Dr. Waggett	5	0	0
Dr. Seaton	5	0	0
C. M. Frost, Esq.	3	0	0
Dr. E. Hart Vinen	3	0	0
Mrs. Needes	4	0	0
J. Gregory Forbes, Esq.	3	0	0
J. W. Turner, Esq., F.R.C.S., Kensington	10	0	0
Dr. Jackson, Notting Hill Square	3	3	0
R. King Peirce, Esq., 16, Norland Place	5	0	0
W. H. Gardner, Esq., 80, Gloucester Terrace	3	0	0
W. T. Innes, Esq., 37, Ladbroke Square	5	0	0
J. J. Merriman, Esq., Kensington Square	2	2	0
J. J. Bartlett, Esq., Notting Hill	3	0	0
Mrs. Dunk	2	0	0

FOREIGN GRADUATES IN ENGLAND.

SIR,—L.R.C.P., if already registered in England, may obtain a diploma by examination at Würzburg, Heidelburg, and other foreign Universities, without residence. The Medical Council and the Government are agreed as to the gross injustice of excluding from registration foreign degrees of scientific value; and the amended Bill, which split on the rock of "direct representation", contained suitable provisions for the purpose. I am, etc., A COSMOPOLITAN.

GRADUATION AS M.D. WITHOUT RESIDENCE.

SIR,—I have read the letter of Mr. Manby in your JOURNAL of October 31st, in which he says "it is quite inconvenient for such an one to break up his establishment for the sake of a few months' residence in a dull university town, or for the attendance on duller courses of lectures". As one who has tried the experiment, I may state my experience.

I took lodgings in Aberdeen, and attended the professors' lectures for the winter session. I did not find the university town dull, and still less so the lectures delivered by the very able professors. All this was to me most pleasant. At the end of the term the examinations were held, consisting of two parts, written and oral, in medicine, surgery, anatomy, physiology, midwifery, and medical jurisprudence; these being the subjects required for those in the profession prior to 1861. I do not for a moment contend that it is an inexpensive mode of graduating, or that—could one foresee future events—one would not rather have taken the degree as a younger man; yet I consider it would be an injustice to candidates for the honour not to have the advantages of residence in the dull university town.

Having been brought up in a provincial school, in which such men as W. B. Carpenter, Tyler Smith, A. Prichard, etc., received their earlier professional education, and who have left their stamp upon it, I do say that, although a qualified practitioner of sixteen years, I felt a pleasure in again submitting to the ordeal of student-life. Some scheme whereby every student in medicine should be compelled to affiliate himself with one of our Universities by matriculation, and pass at least one year of the curriculum at the University, although he need not then graduate, would allow of his doing so at any future time, and thus get rid of the difficulty complained of at present. I am, etc.,

THOS. ED. CLARK, M.D., late Physician to the Bristol General Hospital, and formerly Surgeon to the Bristol Royal Infirmary.

November 2nd, 1874.

THE VISITATION OF EXAMINATIONS.

SIR,—In the JOURNAL of October 24th, you mention that certain gentlemen's names have been forwarded by the Branch Medical Council to the General Council, recommended as visitors of examinations under the Medical Council. I beg to correct an impression likely to arise when reading your paragraph—namely, that the Colleges have sent up and recommended those names to the Branch Council. So far as the College of Physicians is concerned, nothing of the kind has taken place. The College has never been asked to recommend any one, and did not do so. I believe the same is true of the College of Surgeons. I do not find fault with any of the names, but the College of which I have the honour to be a Fellow has nothing to do with the matter. The gentlemen who happen to be Fellows and Licentiates of that body, who have had their names sent forward to the Council, must be volunteers. I am, etc.,

A FELLOW OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

THE TITLE OF "DR." AND THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SIR,—In reply to "Country Practitioner", "Cosmopolitan", etc , in the JOURNAL of October 24th, kindly allow me to reply to the statement, "that the assumption of the title "Dr." by the Licentiates of the three Colleges of Physicians, is an abuse of modern origin. I protest against such terms being used in respect to the King and Queen's College of Physicians in Ireland. In the case of Trinity College *v.* the College of Physicians of Ireland, decided at Dublin in 1864, the Master of the Rolls gave it as judgment "that the King and Queen's College of Physicians had no power to grant the 'degree' of M.D., but that this in no way affected the right of the Licentiates and Fellows to the prefix of Dr." The charter of William and Mary, and the Act of the Irish Parliament, 1 Geo. III, cap. xiv, made perpetual by the Act 30 Geo. III, cap. xiv and ii, confer on the Fellows and Licentiates of the King and Queen's College of Physicians the "title" of Doctor of Physic. As long as this charter remains, every Licentiate has a legal right to use the title of Dr. Every Licentiate ought to maintain his proper dignity and that of the College by signing Ph.D. (Doctor of Physic) after, or have Dr. before, his name. If the University graduates object to the signing even of M.D., they must first make a distinction between physic and medicine. As to the special right of using the title of Dr., they have none ; they are simply Doctors of Medicine: the prefix is assumed by all with equal right. I therefore say it is the duty of every Licentiate to use the "title" conferred upon them by the College. I am, etc.,

PH.D. AND L.K.Q.C.P. Ireland.

October 1874.

MEDICAL TITLES.

SIR,—Perhaps it would be better to consider the whole profession, rather than individuals, in the matter of medical titles : and if the assumption of the term Dr. by Licentiates of Colleges of Physicians be unjust to the Doctors of Medicine, undoubtedly it should be dropped. I should be glad to know whether it is true that some of the Scottish diplomas of L.R.C.P. have been obtained per return post for the consideration of a few guineas only. There are several views to be taken regarding an M.D. degree. If a man have it before starting in practice, he has a social standing in addition to his medical qualification, the standing being determined by a certain amount of mental and intellectual training, acquired over and above the necessary technical training. Now, it is perfectly certain that a man who has the will may train his mind concurrently with ordinary practice, even though that training might not be exactly according to University routine ; and it would seem but fair that such an one should have facilities for taking his degree ; not only on his own account, but also because on public grounds it would be advisable to encourage medical men to keep up their technical studies at the same time that their general acquaintance with men and things was also advancing. I know of men in actual practice who have forgotten even the name of important every-day diseases, who never look at medical periodicals, although they may do a little in farming or hunting, whilst others seem to wish to show the strength of their understandings by the amount of alcoholic saturation they will bear: such require stimulating in another direction. If those most willing to obtain degrees could do so, others might find it necessary to do the same. Would the older M.D.'s have cause to complain if such a course were followed? I think not, for they would begin as leading men, and would always be considered as such ; and they have a direct interest in keeping the rank and file of the profession up to the mark, inasmuch as it is the intelligent man who seeks consultations, whereas the ignorant avoids them.

I should much like information as to how the proposed conjoint examination will affect medical titles. I am, etc.,

LAM-ALEPH.

November 1874.

SIR,—In reply to "A Country Practitioner's" letter in the JOURNAL of October 24th, in which, speaking of the title of Doctor, as applied to L.R.C.P.s, he says "the London College of Physicians is the only one that forbids it", I enclose extract from an "Explanatory Minute of the Council of the Royal College of Physicians, Edinburgh, regarding the Licentiates of the College", issued in 1870.

"1. The College has been repeatedly charged with having its licence to practise in a way calculated to lead to the assumption of the title of Doctor of Medicine by persons having no claim to it. Nothing can be more groundless than this charge. *The College has never, directly or indirectly, claimed the possession of any power to confer the title of Doctor; and applicants for its licence have been, in every instance in which inquiries were made on the subject, informed in the most express terms that no such title was granted by the College.*"

Will "A Country Practitioner" kindly publish in your columns the letter he speaks of having received from the Royal College of Physicians of Edinburgh, in which he says "he was informed that, although Licentiates were not legally qualified to use the title of 'Dr.', it was generally considered that they should be so addressed".

I enclose my card, and am, etc.,

November 1874. L.R.C.P., ANOTHER COUNTRY PRACTITIONER.

SIR,—Permit me to second the proposition of "A Country Practitioner", in your issue of the 24th October—viz., that "all Licentiates of Colleges of Physicians in actual practice should sign a petition to one of the British Universities to be admitted for examination for the degree of M.D." I fully endorse all that your correspondents—"Cosmopolitan", "Justice", "L.R.C.P.E.", and "A Country Practitioner"—have said, and I do earnestly hope the question will not be allowed to rest until some one of the British Universities opens its portals to the many hundreds of us now panting for the M.D. degree: I say many hundreds, and am sure you would find I am correct. I am, etc.,

JOHN BATELY, L.R.C.P.Lond., etc.

Southtown, Great Yarmouth, October 26th, 1874.

APOTHECARIES' ASSISTANTS.

SIR,—I am an assistant of the Apothecaries' Society, London, and desire to be informed, through your correspondence columns, if I can legally carry on the calling of chemist or apothecary, on the strength of the above certificate, without any embargo on my liberty or purse. I am, etc., A.S.A.

*** All persons who have passed the Apothecaries' Hall as assistants, have no power granted to them than qualifying them to compound and dispense medicines. They cannot act as chemists or apothecaries without infringing the law.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

ON THE RIGHT MANAGEMENT OF THE PUERPERAL STATE.

SIR,—As you have opened your columns to a consideration of the above subject, perhaps you will permit me to make the following brief statement of facts.

In a hotel at Paris, in the month of July 1870, I delivered a lady of her first child. The weather being excessively hot, I induced her to get out of bed and to lie on the sofa on the third day. On the fifth day she took a cold bath, and walked about the Champs-Elysées till 9 P.M. On the eighth day she travelled to Macon, arriving there the same night, and on the following morning she took a walk of four miles to a neighbouring village and back, and in the afternoon a drive of two hours. The following day she proceeded to Geneva. The writer attended her with her second child ten months after the first. On that occasion also she sat up on the third day, and was about her ordinary duties on the eighth. In January 1873, he attended her for the third time, and with precisely the same result. She has remained in excellent health ever since. I am, etc.,

October 1874. M.D.

MOSQUITOES.

SIR,—Certain localities in London being infested with mosquitoes, can any of your correspondents assist me by suggesting the best method of expelling them from houses? They appear to be most numerous near the main sewer. Is it possible that they breed in the sewers? and, if so, by what means can they be best destroyed?

November 1874. I am, etc., M.B.

THE MEDICAL STUDENT.

A CONTEMPORARY gives the following truthful description of the student of the present day in contradistinction to that of his counterpart of a former age.

"This is an earnest age, and the medical student is, nowadays, by no means the rattlepated, careless individual our forefathers were wont to picture him. He goes to the schools to imbibe definite notions as to the treatment of subtle disorders and the prevention of premature mortality; and, with his searching examinations always in view, he has no time to lose. The teaching, therefore, of the lecturers is of greater moment than before, and each succeeding year does but add to its importance. We would point out to the aspiring student how vast a field of knowledge has yet to be explored; what jewels lie yet hidden in unsearched mines; what prizes remain for the earnest, unprejudiced investigator and thinker."

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Nov. 2nd; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Hampshire Telegraph; The Sheffield and Rotherham Independent; The Standard; The Portsmouth Times; The Armagh Guardian; The Morpeth Herald; The Bradford Observer; The Stroud News and Gloucestershire Advertiser; The Glasgow Herald; The Liverpool Mercury; The Liverpool Porcupine; The Scotsman; The Hackney Express; The Bedale and Northallerton Times; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Brunton, London; Dr. Marcet, Cannes: Mr. A. Davies, Swansea; Dr. James Russell, Birmingham; Dr. A. Sheen, Cardiff; Dr. Trollope, St. Leonard's-on-Sea; Dr. Elliot, Carlisle; Mr. J. Martin, Redditch; Mr. Clifford Gill, York; A Country Practitioner; Dr. Maclagan, Edinburgh; Mr. George May, London; Dr. Inman, Clifton; Mr. Greenwood, Leeds; Mr. E. W. Thurston, Ashford; The Secretary of the Hunterian Society; Dr. Heaton, Leeds; The Secretary of the Clinical Society; Dr. J. Matthews Duncan, Edinburgh; Dr. Barnes, Liverpool; Mr. G. Brown, London; Dr. Clifford Allbutt, Leeds; Dr. Edis, London; The Secretary of the Royal Medical and Chirurgical Society; Mr. Eastes, London; Dr. Bradbury, Cambridge; Dr. G. H. Philipson, Newcastle-upon-Tyne; Our Paris Correspondent; Dr. F. J. Brown, Rochester; Dr. Buchanan, Glasgow; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; W. W.; Mrs. Dalrymple, Norwich; Mr. Stephen Clogg, Looe; Cosmopolitan; Mr. Beasley, Stourbridge; Dr. E. Hart Vinen, London; Dr. Clark, Clifton; Mr. G. S. Symmons, Ledbury; Mr. Wm. Fairlie Clarke, London: Mr. T. M. Wills, Bootle; Dr. A. B. Steele, Liverpool; The Secretary of the Clinical Society; Mr. A. R. Hall, Woolwich; Our Glasgow Correspondent; Hugo; P. C. S.; Dr. Bleckley, London; M.D.; Dr. Lauder Lindsay, Glasgow; Sir William Gull, London; Mr. G. J. Schacht, London; An Associate; Dr. Basham, London; Dr. Aveling, London; Mr. Vincent Jackson, Wolverhampton; Mr. Watts Parkinson, Wimborne Minster: Mr. Miles A. Wood, Ledbury; Wr. Nelson E. Dobson, Clifton; Mr. Porter, Netley; Mr. Rowland Smith, Cobham; Mr. Blackett, London; M.D.; Ulner; Mr. A. B. Myers, London; Mr. E. G. C. Snell, London; Mr. David Griffiths, Trefyn; Our Irish Correspondent; Dr. Stanley Haynes, Malvern; Mr. T. L. Webb, Shrewsbury; Dr. Lynn, London; Mr. Poole, London; Dr. Balthazar Foster, Birmingham; Dr. Sawyer, Birmingham; Dr. Felce, London; Dr. Shingleton Smith, Clifton; etc.

BOOKS, ETC., RECEIVED.

Diseases of the Skin. By George Nayler, F.R.C.S. Smith, Elder, and Co. 1874.
On Intra-uterine Fibroids. By J. Marion Sims, M.D., New York.

REMARKS
ON
ALCOHOLISM FROM A CLINICAL POINT OF VIEW.*

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the General Hospital, Birmingham.

MR. PRESIDENT,—I had sent in to the secretaries of our Branch the title of my present paper before I had the privilege of hearing your excellent address on the same subject, which has since appeared in our JOURNAL (July 25th). In that address, you covered the entire ground I had proposed to occupy; you adduced the same arguments which had occurred to my own mind, and, finally, you so collected all the threads of your discussion, as to cause them to converge to the exact point to which I had hoped to lead my hearers.

I desire here to state your conclusion; it was, that we possess no effectual means of dealing with the dreadful evil of secret drinking, which you justly represented as prevailing to a very serious extent, so long as the patient enjoys full liberty of action. You said: "It matters little for all practical purposes whether the drinking have produced the insanity or the insanity the drinking; we have to deal with the facts as we find them;" and, in behalf of the mental and physical well-being of the individual—in the interest of his family and his property—and in the name of society at large, you pleaded for such a change in the present state of the law as, with due provision to secure the testing of of every case, might confer upon properly selected authorities the power of subjecting the patient to the restraint which would be necessary for preventing his further indulgence in his vicious propensity.

In bringing the subject, with your permission, again before our Branch, I have been influenced by the conviction, that the opinions you announced would gain strength from discussion; and that the whole of your address must have aroused so many experiences in the minds of our members, that it richly merited such discussion. I simply propose to go upon your own lines, and, availing myself of the general view of the subject which you have presented, to offer support from certain considerations resulting from the clinical observation which my experience may have presented to me.

The principal grounds on which your proposal rests to alter the present state of the law as regards the case of habitual drunkards would, I believe, be the following. 1. The cases of habitual drinking for which the proposed treatment is intended are *practically cases of disease;* the patient, acting under a diseased influence, incurs the certainty of mental and physical incapacity; introduces misery into his family; squanders his means; and renders himself useless or mischievous as a member of society. 2. We possess no effectual means of averting these dangers, so long as he retains full liberty. I propose to illustrate these two positions.

1. In considering the first position, I shall not attempt to make any more elaborate classification of habitual drinkers than the directly practical one employed by yourself; viz., into *vicious and morbid drinkers.* Those who are curious upon this part of the discussion will find much interesting matter in the Blue Book, which is the result of the labours of Mr. Dalrymple's Select Committee of the House of Commons on Habitual Drinkers, published in 1872, to which I shall have cause to refer more than once.

Now let me state that, in admitting most fully the existence of a large class of so-called morbid drinkers, I am fully sensible of the danger to be apprehended from weakening the sense of moral responsibility; I am completely alive to the fact that, even in many cases of actual insanity, the consciousness of responsibility may yet remain, and that it is the purpose of the most enlightened treatment of the insane to keep alive this consciousness as long as possible. I submit, however, that, in relation to the present question, we are not called upon to apportion the exact amount of moral delinquency incurred by our patient. Under any circumstances, I fear that we must relegate the verdict on this issue to a far higher tribunal than our own judgment. But let it be remembered that it is not now a question of granting immunity from the penalty of wrong-doing, or conferring some unmerited privilege; the penalty too surely follows the crime, and confinement in a retreat is by no means a pleasurable position. As you have correctly observed, it is with the present state that we are concerned; and Dr. Crichton Browne's reply to the Select Committee (500), in answer to the inquiry where restraint is to be imposed, at once puts the matter in its right light. "Whenever the craving becomes irresistible; when he (the patient) says that he cannot resist it; when his affections are weakened, and his intellect fails, and his will becomes weak, and he neglects his affairs and ruins his family." When such a period has arrived, I would observe, the question as to the proportion of cases in which diseased drinking has been the outcome of vicious indulgence, and those in which it was a diseased propensity from the very beginning, seems to fall into a subordinate position.

I need hardly observe that there is a reverse to this picture, and that much wants doing for the correction of the related class of *criminal* drinkers. At present, the law has no censure for drinking as a vice; those drunkards who are brought before the magistrates are not taken up on account of their being intoxicated, but either because they have been guilty of disorder, or because they are incapable of taking care of themselves.

With these preliminary remarks, I propose to offer some clinical illustrations bearing upon the morbid form of habitual drinking; that form which has been termed dipsomania or oinomania by different observers, with certain distinctions as to the special signification they attach to these terms.

Many considerations tend to assimilate such cases to other recognised forms of nervous disease. I may observe, *first*, that, in a not inconsiderable proportion of instances, symptoms of insanity actually precede the outbreak of intemperate habits. Dr. Parrish informs the committee (2659) that, in the Pennsylvania Hospital for the Insane, the assigned causes of insanity are identical with those alleged by inebriates or their friends in explanation of the habit they had formed; and Dr. Crichton Browne states (520) that, of the cases of insanity under his notice, in which the disease was ascribed to habits of drinking, in one-third hereditary tendency to insanity was a co-operative influence.

Secondly.—The very marked quality of *periodicity*, which is a prominent feature in the best marked cases of the so-called dipsomania or oinomania, is clearly in accord with the well known habit of the typical forms of nervous disease. The frequent returns of patients to the houses of refuge illustrate this element in the disease, as do the frequent recommitments by magistrates for the vice; Mr. Mould (768) mentions one lady who had been in his asylum thirty times in the course of ten years; and, on the other hand, the Chief Constable of Leeds (2494) speaks of a person who had been brought before the magistrates nearly one hundred times.

Thirdly.—If, again, we look at the causes most generally assigned as leading to the formation of the habit of drinking, we shall see that they imply the operation of influences which tend directly to produce cerebral or mental disease, or imply their actual presence. Such are insanity itself, cerebral diseases, sunstroke, blows on the head, hæmorrhages, nervous shocks, the commotion of the system attending the establishment of puberty, or connected with the climacteric period, etc. I purposely exclude a large group of powerful influences connected with education, habits of social life, etc., as susceptible of a more doubtful interpretation regarding the simple operation of nervous disorder.

Fourthly.—The marked moral degradation and intellectual failure which accompany certain forms of habitual drinking, and occur at an early period, bear similar testimony. You have yourself strikingly illustrated this part of the subject by some most impressive instances; I will only pause to note, in addition, the difference which I think prevails in this particular from what we observe in the vicious toper. The latter individual manifests moral degradation enough, it is true; but the degradation rather developes itself in sentimentality or in passion and violence; in him the moral aberration consists in the unrestrained acts of his normal propensities, when set free from control, more than in the peculiar perversion of veracity and of natural affection frequently characterising the morbid drinker.

Fifthly.—I have to mention the important position held by *hereditary tendency* among the antecedent circumstances observable in the history of many of the patients. It was an Aristotelean maxim, to which the late Dr. Anstie gave his assent, that drunken parents beget drunken children. Dr. Doidge is reported in the Blue Book to have stated (2968) that the statistics of the New York Binghampton Asylum show that a large proportion of patients received into that institution have intemperate parents; and, according to the report of the New York State Inebriate Asylum, 125 out of 315 inmates had intemperate ancestors.

But I think an important distinction may be shown to exist between different cases of heredity in considering the testimony they may bear to the morbid character of the habit we are considering. Let me illustrate the difference by the following comparison. I have in my mind a large family, of whom the eldest was a *bon vivant* and a solitary drinker, or rather, a toper; ultimately, his digestion gave way, and he was compelled to give up his habit; when advanced in life, he became subject to delusions, and committed suicide. Three of his brothers were hard drinkers, and two of them died of the results; and one of three sisters exceeds the bounds of moderation. One of the brothers has had two sons, who have fallen into the same habit. Now, in this family, I should be disposed to ascribe the congenital tendency rather to the effects of example and defects of education than to any form of transmitted nervous disease.

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* Read before the Birmingham and Midland Counties Branch.

With this case, contrast the following. A young gentleman was brought to me with epilepsy by a medical friend, from whom I had the following history. The paternal grandfather was insane, and died in an asylum; two of his brothers died of paralysis, and one of these two had an insane son. The father was a dissolute man; his brother was intemperate, and died in a single epileptic fit. One of the patient's brothers is now a confirmed epileptic, and literally a drunken reprobate. The son of the father's intemperate brother is epileptic, has been committed to prison for thieving, and is now in an asylum.

Now, this latter case is a typical instance of the inheritance of a badly organised nervous system, and the cases of intemperance which it presents occupy the same relation to congenital defect as do the other forms of disease.

Take, again, the following striking illustration. A young lady has had epileptic fits; her sister is hysterical, and one, if not more, of her brothers is morbidly impressible. Her mother has had several attacks of depression. The mother's mother (maternal grandmother) was a healthy vigorous woman for the several years through which she was at times under my care; but, of three of her sisters, one died of peculiar nervous symptoms after a nervous shock; of four brothers, one died in an asylum, and I was consulted about his daughter, who is melancholy; another brother drank and finally committed suicide; a third is a hopeless hypochondriac, and his two daughters have had nervous attacks; the remaining brother is intensely selfish, unmanageable, and a great trouble in business, and one of his daughters has been in an asylum.

The words which Scott puts into the mouth of Ratcliffe, in the *Black Dwarf*, though of very dangerous tendency, if permitted to furnish an apology for neglecting to exercise self-control, have yet in them much scientific truth. "The courtier who ruins his fortune for the attainment of a title which can do him no good, or of power of which he can make no suitable or creditable use; the miser who hoards his useless wealth, and the prodigal who squanders it, are all marked with a certain shade of insanity. To criminals, who are guilty of enormities, when the temptation, to a sober mind, bears no proportion to the horror of the act, or the probability of detection or punishment, the same observation applies; and every violent passion, as well as anger, may be termed a short madness."

We know that inherited infirmity affects *tissues*, not organs, hence one and the same liability to disease may show itself in several different forms, even in the same family. But there is another circumstance which will materially affect the forms assumed by nervous disease in different individuals; it is made the subject of special notice in an excellent article on the Comparative Study of Drunkenness, published in our JOURNAL on May 16th and 23rd. The symptoms which characterise many forms of nervous disease are due mainly to the more or less complete withdrawal of the control which the higher centres habitually exercise over the lower. Such is the occasion of the diversity of form manifested by intoxication, by epilepsy, by some kinds of insanity, even by the violent developments occasioned by certain injuries to the head. Under such circumstances, the symptoms of the disorder will vary according to the degree to which one or other of these two factors prevail; viz., the degree of violence with which the lower centres are endowed by nature; and, secondly, the degree of development attained by the higher centres; in other words, the hold the higher have over the lower.[*] The more full the development of the higher centres, the more difficult will it be for disease to destroy their controlling power; and thus it comes to pass that, in the same family, we may meet with very varied manifestations of disordered action in the lower centres of motion, of passion, or of reflection; and epilepsy in one member may answer to hysteria in another, and to depraved taste, or even to violence of character in, a third.[†]

In keeping some records of cases of epilepsy and also of hypochondriasis, I have made inquiry as to the presence of alcoholism in the patient's family. I found, in eighty-four epileptics, instances of alcoholism in the families of forty-four; in twenty hypochondriacs, the same was the case with the families of eleven.

But the controlling influence exercised by the higher centres in the brain is not removed in the same manner in every patient, and it is to the various modes and degrees in which this control is lessened that we must attribute a fact, which I doubt not has often struck my hearers; I mean that there are many families in which such nervous disorders prevail as we know have a direct tendency to produce secret drinking, yet without the presence of the vicious habit in a single one of the sufferers. I have now in my recollection a large family, in which there have been among its members cases of extreme hypochondriacism; of recurring depression of spirits, in one or two members passing almost to melancholy; of unhealthy irritability of temper, with marked angularity of character; and of a condition of morbid sensitiveness to physical discomfort, united to a lowered standard of vital power, which renders this sensitiveness a source of serious trouble—and this through two generations; yet in none have I had any fears for the occurrence of the habit we are now discussing; nay, I have seen one member of the family refuse a stimulant which had been prescribed for her, for the very reason of the relief she experienced from such remedies.

I will now turn from these general remarks to notice a few of the cases of morbid drinking which present themselves to a medical man engaged in general practice; and I have no doubt I shall appeal to the painful experience of many around me.

Dr. Druitt, in his evidence, asks for aid in behalf of those of both sexes who are led to secret drinking "for the relief of bodily or mental misery"; and is it not the case that what leads most directly to morbid drinking is, as Dr. Druitt says, misery, bodily or mental?—misery produced by various forms of nervous complaints; by social, or family, or commercial troubles, against which nature has not endowed the sufferer with power to contend; by physical troubles, though in far smaller proportion, because physical ills are more tolerable than mental ones.

Those of my hearers who have read the late Dr. Anstie's work on *Stimulants and Narcotics* will remember that he insists strongly on the power of alcohol, in *moderate* doses, to relieve various nervous symptoms; he gives good reasons for classifying alcohol and other stimulants which thus act among the group of foods. But it is his object also to prove that, when given in more than moderate quantities, the so-called stimulant enters the class of *narcotics*, and exerts a paralysing influence upon nervous tissue. "It is strange, doubtless", he adds, "that every, or nearly every, stimulant we know is, in large doses, a poison; and a grave moral might be drawn, were this the place for moralising, from the fact that the evil always lies so near the good" (p. 275).

Herein, then, lies the danger. The relief obtained from the *medicinal* dose of alcohol is temporary only, and the dose must be repeated; then the quantity needs to be increased, and, in no long time, is carried beyond the bounds which limit its merely stimulant or restorative function. In a certain number of persons, more or less of the enjoyment felt by the toper is superadded, rendering the peril so much the greater; and, as time goes on, the interval of complete sobriety becomes less and less endurable, and thus the practice of self-narcotising is fully established.

Whilst cordially agreeing with the earnest protest uttered by our President against the careless prescribing of stimulants by medical men, it is, I believe, in the class of cases I have just been sketching that the caution is mainly required. In acute febrile diseases, all food is so obnoxious, that there is little fear lest fondness for stimulants should survive the disease, unless, indeed, it be during the period of convalescence, in which period the same caution is certainly required as in maladies having a directly nervous origin. One of the saddest cases of alcoholism I have ever attended appeared to have originated in a stimulant prescribed by a most cautious physician for the relief of irregular action of the heart following a severe mental shock in a very nervous patient.

In a valuable paper by Dr. Druitt, written twelve years ago (*Medical Times and Gazette*, 1862), he drew attention to certain special forms of suffering which are most apt to induce drinking habits; and his remarks are applicable, not alone to women, but to a not inconsiderable class of men having a feminine type of constitution. Among the symptoms, he singles out for special remark one which, I believe, exists in various modifications, and is a fruitful cause of secret drinking. It is, I doubt not, a kind of neuralgia of the abdominal ganglia, and is characterised by various uneasy sensations, among which that of excessive sinking or depression is very prominent. This disorder, and the danger it involved, was exhibited to me not long ago in a very typical manner in the person of a gentleman of extremely irritable and excitable temperament, who had been exposed to protracted mental strain and emotional excitement. His disorder assumed the form of cardiac disturbance, especially accompanied by a sense of great exhaustion and sinking at the epigastrium. Now, there were two circumstances about his case deserving of especial notice from the point of view in which I am now considering it: first, that the attacks were at once relieved by brandy, and, secondly, that they produced a very deep impression upon his wife, who, most naturally, was quite unable to discriminate between nervous sinking and true cardiac failure; she would have been the active, though most innocent agent of leading her husband into habits of intemperance.

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[*] The readers of Sir Walter Scott will recollect an amusing illustration, taken from actual occurrence, of mental automatism whilst under the influence of deep potations, in the person of Pleydell's clerk Driver. (*Guy Mannering*, ch. xxxix.)

[†] It is stated in the JOURNAL of July 4th, that "lunatic convicts" (by such term is meant criminals who have become insane whilst undergoing their sentence of penal servitude) constitute twenty-five per cent. of the population in the Criminal Lunatic Asylum at Broadmoor. Among other authorities as to the disproportionate frequency of insanity among the criminal population, I may refer to Mr. Perry's remarks in the *Report of the Select Committee on Prison Discipline in* 1850, p. 123.

Again: a lady, who suffered from similar attacks of nervous depression, with cardiac irregularity, was in a similar position of danger through the instrumentality of her nurse. I found the brandy-bottle on the dressing-table, the nurse administering in perfectly good faith small doses when the sinking occurred; the patient was, of course, satisfied to accept the nurse's authority, and, had I not interfered, would have continued to relieve herself from present discomfort by means of the brandy. I did not see her again for some time; I then found that her own high principle and her husband's good sense had co-operated with my instructions to remove the danger. In a third instance, the hypodermic use of morphia was employed. The surgeon, a man of strong sense and thorough knowledge of his profession, failed to keep the quantity within limits, and it had already reached the daily amount of five grains of morphia. At last, he was fortunate in obtaining an excellent nurse, under whose administration the amount injected soon sank to a single grain. It is worthy of remark that, in each of the last two cases, the patients underwent marked amendment with the withdrawal of the stimulant, or rather, the narcotic. Another lady suffers so continually from this sense of epigastric sinking, that she is obliged to have a tumbler of hot beef-tea, which I have prescribed as a substitute for spirits, even before she can complete the operation of dressing. Here, again, the husband's alarm would soon have fixed the habit of stimulating upon the lady.

This sense of craving, which forms so prominent a symptom in these unhappy cases, is unfortunately increased by the very means adopted for its relief. I shall never forget the vivid description of the sensation given me by one unhappy victim; he literally wanted words to give effect to his account of its intensity, and the saddest part of all was, that he was well aware that a single dose of brandy and water would at once relieve him. Indeed, in no particular is the really awful tyranny exercised by alcohol so apparent as in its wonderful capability of giving relief to so many forms of nervous suffering, and in its standing so entirely alone in this respect. It is positively without a rival, unless in the equally harmful shape of opium or chloral; could we but find a harmless competitor with this autocrat, our difficulties were well nigh over. Even in the very troubles which itself creates, in the tremors, the inability to eat, the sleeplessness, the depression which renders the interval of sobriety so hard to endure, alcohol is still all-powerful; and the day's drinking commences with the dose, or too often the repeated doses, absolutely needful for the work of the day to be begun.

We may recognise the distinction between the morbid and the vicious form of drinking in the nature of this craving and in the means taken for its relief. The dissecting-room porter drinking soiled spirits, and the criminal priming himself with drink, "using it as he does a chisel", merely exemplify a degraded taste or a vicious intention; on the other hand, Porson drinking ink, a delicate lady swallowing hair-wash or turpentine, manifest the presence of a necessity for satisfying a neurotic sensation.

I would make here one observation connected with the causation of the morbid sensations of which I have been speaking, on account of its directly practical character. These symptoms are, doubtless, forms of neuralgia of the organic nerves; as such, they are liable to be exaggerated by whatsoever increases the pain of ordinary neuralgia. Hence any cause liable to produce exhaustion, such as excessive work of body or mind, worry, anxiety, or lactation, should be carefully forbidden to anyone liable to give way to the indulgence in stimulants. There are some persons so constituted, that they succumb immediately to any mental strain: a patient of Mr. Nelson's (2321) lost her boy and took to drinking; she was perfectly cured; but, thirteen years afterwards, her husband died, and forthwith she returned to be again cured in the asylum: a male patient of my own explained a relapse, after a considerable interval, by business troubles; he was driven to brandy to bring himself up.

Of the diverse exhausting influences to which such persons are ordinarily exposed, let me single out physical or intellectual labour. It is not understood by the public that all work is done through the agency of nerve-force; and that, if the force be called in one direction exclusively, there will be none left for the needful functions of digestion and nutrition. Under such circumstances, resort is had to stimulants, as affording a ready and not unpleasant substitute for food. Thus an overworked barrister found himself in this condition: his stomach refused to digest his daily meals; his surgeon, who was at least shrewd, counselled him to lessen his supply of food to the standard of his stomach's digestive ability. He did so with success; but he became gradually thinner, until finally a nervous breakdown compelled him to leave all work for a considerable time, a far preferable fate to the more common one of taking stimulants which attends such exhausting labour.

In concluding this part of my subject, I have only time to add one remark; it is a general one, and refers to the female sex—a sex, I am sorry to say, far from being free from the vice on which I am commenting. Dr. Barnes, in his highly practical Lumleian lectures last year (JOURNAL, April 1873) On the Convulsive Diseases of Women, illustrates in every variety of form the one central fact in the female constitution, that every part of the generative function, including in that term also menstruation and lactation, involves the expenditure of nervous energy; and that, during the entire period of fecundity, such force is always ready to be produced, and frequently is generated at wrong times and in mischievous quantity. The application of this remark to my present subject is so obvious, that I need not detain you by any further reference to it.

2. I have left myself time only for a very few words on the second position which I laid down at the beginning of this paper; viz., the impracticability of treating cases of habitual drinking, so long as the patient is left to pursue his course unrestrained. My first reason for this statement, indeed, includes all the others. I may quote your own emphatic declaration, that you had never lost an opportunity of attempting to reclaim a drunkard; but yet, looking back through a practice of more than twenty years, you cannot recall a single instance in which you have been successful. The testimony of various witnesses before the Select Committee, including many of those most conversant with the subject and with the allied subject of insanity, is unanimous to the same effect. That this should be so is readily explained. There is no hope of cure without sustained and complete abstinence, and some of the foregoing remarks show how painful and difficult a task, how weary and protracted a struggle, is implied by these words, and how inadequate the brains of most of the sufferers are to the encounter.

A second source of difficulty lies in the weakness and ignorance of friends. I have alluded to the very excusable mistakes made in interpreting the craving and sense of sinking and exhaustion so much complained of. But, beyond this, there is sometimes, strange as it may appear, a weak dislike of refusing to a wife or a husband the asked-for stimulant. This even occurs in the educated class; a friend told me that he had interdicted stimulants to a lady who, he found, was rapidly falling into bad habits; the husband was fully alive to the danger, but could not make up his mind to deny her request; "but now", he said, "that I have your authority for refusing, she shall have no more". The husband of a patient of my own took care, he said, to give his wife the very best ale; "for he did not like to seem to grudge it, as she appeared so ill". He did not understand that his wife drank to excess, because she did not take spirits undiluted and in large quantities at once.

There is, indeed, among many of the lower classes of our patients, and in some of the higher classes also, a positive inability to recognise the habit of habitual drinking, sometimes through lowered moral sense, sometimes through defective education.

In many families, moreover, the fact of the existence of the vicious habit is completely concealed from the nearest relative. Thus especially wives will long succeed in concealing the practice from the husband. This ignorance, unhappily, is sometimes due to the very circumstances in the husband's life which may have led the wife to give way to the temptation to drink; I mean his constant absence from home.

Nor is it without pertinence to mention the difficulty, or rather, perhaps, the uncertainty, which lies in the way of diagnosis; and I need not say how necessary it is for us to be on safe ground before acting in so delicate a matter.

In a not inconsiderable proportion of cases, we find no evidence of disease of liver or kidneys, and we are left to found our diagnosis upon symptoms which, though sufficiently demonstrative when grouped together, will often leave us in uncertainty when existing alone. The symptom which I regard as best calculated to arouse our suspicion is the loss of appetite, often amounting to an absolute disgust for food, frequently attended with obstinate vomiting, especially on first rising from bed. I may just note here that, though the tongue generally presents a characteristic appearance, yet, in not a few cases, it preserves a perfectly natural condition.

I have only to note, in the last place, how little help we receive, either in diagnosis or in treatment, from the nearest friends; and how difficult and delicate a matter it is to deal with the friends when we have obtained sufficient evidence to form a clear judgment. Not long ago, I rode by the side of a son, who was intensely anxious about his mother; during our journey, he entered most fully into the history of his mother's illness, detailing all her symptoms, but did not let drop one word about habits of drinking. On my arrival at the patient's house, the nature of the case was but too evident; the lady was dying of drink; but I got no hint of the real cause, until I made inquiry from my colleague after the examination was ended. In another case, in which the anxiety of the parents about their daughter was excessive, and was also justified by her death, I paid my first visit without receiving information on this subject from anyone with whom I came into communication; it was only when I pointedly suggested a possible cause for incontrollable vomiting at my second visit that a free admission was made by my colleague, who had been restrained from offering any communication to me by the absolute horror on the part of the parents of any reference being made to the fact of their daughter having aided herself to endure a husband's neglect by the sustaining power of stimulants.

ALCOHOLISM IN PRIVATE PRACTICE.

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Prevention is better than cure in all diseases, but especially in those produced by an excessive indulgence in alcohol. Intemperance, just short of being absolutely drunk, is now far more common amongst the upper classes than it was ten years ago; and it is more than ever needful for those who see the ill effects of an inordinate indulgence in stimulants to remind their patients that the good things of this world are intended to be used, and not abused.

The whole question, however, is beset with many difficulties. Some men can take a very large quantity of alcohol, and are all the better for it; others, with weaker heads, try to follow their example, and suffer in various ways in consequence. The methods of treatment or of prevention are in many instances faulty and prejudiced. On the one hand, we read of sensational temperance meetings, where the use of alcohol is altogether condemned. On the other side, we have the fashionable doctor prescribing champagne at lunch for his lady-patients. Many people err in the use of alcohol from mere ignorance, and are really grateful for a few practical hints as to what they may and what they may not take during the day.

The following observations, deduced from numerous inquiries, may possibly be of service to those who have doubts on this subject. They are intended to point out some of the premonitory symptoms of alcoholism, selected from typical cases, and the most rational means of avoiding excessive indulgence in stimulants.

Case i. *Extreme Nervousness from Alcohol.*—Mr. W. H., a stockbroker, complained of a painful state of nervousness. He was afraid to walk out of sight of his house in the morning. He drove to the City in a brougham with his wife, and did not dare to go alone. In the morning he was always in a state of collapse. He transacted his business, but was so nervous at the office, that he was obliged to lean on the arm of one of the clerks in going down stairs. This condition necessitated two or three glasses of neat brandy, but he never felt that he was "himself" until after lunch. At that meal, he drank a pint bottle of stout and two glasses of sherry. He had a glass of sherry in the afternoon; three or four more at dinner; a pint of claret and about two glasses of whiskey and water at night. He was ordered to leave off the brandy and whiskey altogether, to drink water at dinner, and to take wine only at the end of the meal. After a week of this treatment, he was much improved.

Case ii. *Transitory Mania from Alcohol.*—An officer in the army, aged 24, came up to town for a spree. He very seldom took much. One night, he was dining at one of the military clubs, and drank a bottle of champagne, besides sherry, hock, and claret. After dinner, he had two glasses of neat brandy. He soon became much excited, and executed a "view-holloa" in the club dining-room, much to the astonishment of other members. He left the club with his friend, and took two more glasses of brandy at a public-house. After this, he became more excited, struck a stranger on the back with his stick in Regent Street, tore down a large advertisement, and was ultimately taken to his lodgings with much difficulty. Here he attempted suicide with a razor, and, in flourishing it about, the blade fell back on his knuckles and cut him severely. Next, he boxed at his looking-glass, and struck it with such force as to cut a piece of skin as large as a sixpence off the back of his hand; not breaking the glass, however. After that, he tried to get out of the window; but assistance was procured, and he was strapped down in bed, and prevented from doing any further mischief. Next day, he left town apparently well, no treatment by drugs having been resorted to.

In both these cases, the patients were advised to reduce their quantity of alcohol, and were told that no healthy man ought to exceed four glasses of wine a day. They both had sufficient common sense to know where to stop; and there is no reason why they should not recover from their incipient symptoms and become temperate and healthy men.

The prognosis in the following cases, however, was far less favourable, as the habit was of long standing, and was indulged in to the extent of getting drunk frequently and without regard to consequences.

Case iii. *Dipsomania.*—On March 21st, a clergyman called on me, and gave me the following particulars about the state of mind of his daughter. Miss P. E., aged 28, had run away for the third time from her home, and was found in London, alone, in a lodging-house. There was no hereditary history of insanity, phthisis, or nervous disorders. The father was very hysterical, and burst into tears several times while he related his story; but this was sufficiently accounted for by the conduct of his daughter. She had always been healthy as a child until she was sixteen years old, when she had scarlatina. After this illness, she went out of the house before she had properly recovered, and caught a chill. This was succeeded by an attack of meningitis. For five years after that, she suffered from great debility, accompanied with various mental symptoms, such as slight loss of memory, weakness of judgment, irritability, wilfulness, cruelty to her sister, lying and spreading false reports about her relatives. These symptoms gradually became worse; and, as there was considerable loss of tone and want of sleep, the medical treatment included stimulants and also opiates. The patient then got into the habit of treating herself, and would take large quantities of chlorodyne, sal volatile, paregoric, or laudanum, during the day, if she fancied she required it. For the last four years, she had been addicted to taking opiates to a great extent. She employed a number of agents in the parish to procure opium for her secretly, and rewarded them by giving them her old or new clothes recklessly. Latterly, a taste for alcoholic stimulants was also developed, which she gratified by frequent visits to public-houses, and was found on several occasions staggering about the streets of her father's parish in a drunken condition. During this period, she was placed under medical treatment, and the opium and stimulants were cut off entirely. This sudden change in her mode of life had immediately disastrous effects. She became very restless, weeping all day, begging for wine and laudanum, and at last was so debilitated that she was confined to bed for four weeks. The treatment succeeded temporarily, however, and she abstained entirely for three months. At the end of that time, she took to her old habits again, and became more intemperate than before. She took a violent dislike to her relatives; stole a twenty-pound note from her father; pawned a watch, which originally cost £20, for 15s.; and succeeded in inducing her friends to give her dresses costing altogether about £50, saying she was going to India, which she never had any intention of doing. The father procured the necessary order and certificates, and with no little trouble she was traced to a lodging-house near a convent, where she had been residing, and from which she had been expelled for misconduct. After some manœuvring, I and my friend Mr. Bond succeeded in obtaining an interview. Four days previously, she had been out at night in search of a situation as governess, and had got drunk and fallen down an area. She was picked up by a policeman, taken to the station-house, and locked up in the cells for the night. Her hand was severely injured by the fall, and she had bruised her eye, nose, and chin. Her dress was covered in every part with dried blood; and, beyond a night-dress, she had nothing with her but the clothes she was wearing. After a prolonged interview, in which she told several lies, which she afterwards confessed, it was found that there were no evidences whatever of insanity about her. The father was, therefore, informed that there the doctor's duties ended, as the case was not one which could be legally treated in an asylum. A most distressing scene followed. The father begged his daughter to return home; and this she obstinately refused to do, although there appeared to be no chance of her getting a shelter anywhere else. In the course of our interview, this lady confessed to taking an amount of alcohol equal to about eight glasses of wine a day, and, in addition, six drachms of laudanum every night. It was, therefore, necessary to order four glasses of wine daily, and two drachms of the tincture of opium every night, although there was apparently not the slightest hope that she would limit herself to this quantity if she had an opportunity of further gratifying her extraordinary propensities.

CASE IV. *Dipsomania.*—Mr. A. D., aged 60, a rich merchant from Lancashire, sent for medical advice on the morning of Sunday, March 22nd. He was one of a large family, none of whom had been addicted to habits of intemperance; nor was there any hereditary taint of insanity, phthisis, or nervous disorder. He had always been a strong healthy man. He had been remarkably prosperous in business, and was noted for possessing an unusual amount of shrewdness and common sense. For the last forty years, however, he had lived very freely, and had been frequently intoxicated. Latterly, this habit had become confirmed, and he had drunk to such an extent as to become a perfect nuisance to his sons, who were all sober and steady, and who were carrying on his business for him. About four days ago, he came up to town to visit his branch establishment in the City. He confessed that on one day he had drunk a bottle of champagne in the afternoon at the office, two bottles of sherry at dinner, besides beer and whiskey during the day and also when he returned home at night. On Sunday morning, he awoke in a great state of tremor, having slept very badly, and felt so unwell that he became alarmed, and sent for a doctor.

He was a remarkably fine robust old man; and, although his memory was said to be affected by his long continued potations, it was impossible to discover any proofs of intellectual aberration. On the contrary, he asked some very pointed questions about the proposed treatment of his case. The skin was warm and perspiring. In front, the lungs were fairly healthy; but behind there were loud sonorous *râles* all over the chest, and dulness with tubular breathing at the base of the right lung. It was afterwards ascertained that he had caught a severe chill when coming home in a cab in a semi-intoxicated condition. The heart's action was feeble, but regular; and there were no murmurs. Pulse 104, sharp and rather small. The liver was somewhat enlarged, the hepatic dulness extending to two and a half inches below the ribs. There were also pain and tenderness in this region, both in front and behind. The tongue was very large, soft, flabby, and tremulous, and covered with irregular white patches. On making him raise the hands with the fingers extended, it was observed that they were also very tremulous. The question of treatment resolved itself into present and future. The lung-symptoms, being the most urgent, were treated first; and a night-draught containing hydrate of chloral and bromide of potassium was ordered. The patient was also advised not to take more nor less than eight glasses of wine a day, which quantity was to be gradually reduced. The improvement was very rapid, although it was probably due more to the fact that the old gentleman was kept in bed and away from unlimited alcohol, than to any medical remedies which were prescribed.

The lesson to be learnt from such cases is, that our code of laws is decidedly in a defective condition, when such patients are allowed to be at large, and to injure both themselves and their relatives by their habits of intemperance. In the first case, there was a young lady bringing disgrace and ruin upon her parents and brothers by getting into debt and drinking to excess on every possible occasion. As she was of age, her father could not legally detain her; and, being sane, she was unfit for an asylum. In the second case, an old man was imperilling the prospects of his relations, and putting them into a continual state of alarm, by getting frequently intoxicated in public. He being the head of the family, they were afraid to offend him; and, as he was of sound mind and obstinate, they were compelled to keep him at home.

We have every reason to believe that there are many persons amongst the upper classes who are suffering from minor ailments, and are sowing the seeds of greater ones, by their ignorance of the use and abuse of alcohol. What is required for such persons is an establishment in which they could seek refuge until they had conquered their dangerous propensities, and where they would enjoy greater liberty and privileges than they could in a lunatic asylum. The patients might be of two classes, and in the same or in different institutions. One class should include such cases as those detailed above, who are absolutely ruining the prospects of their families by their bad habits, and who should be confined, whether they like it or not. The other class should consist of those who, feeling the necessity for surveillance, would voluntarily place themselves under the discipline and *régime* of asylum-life.

The treatment of alcoholism in its earliest stages need seldom include the administration of drugs. The patient's cure is in his own hands, and he is usually in good bodily health. Some people ridicule the idea of there being any necessity at all for limiting their daily amount of alcohol: others are really grateful for a few practical hints on the subject. Living, as we now do, in an age of public dinners and general festivity, it is especially necessary to lay down a few simple rules for our guidance. Some of these, which we frequently prescribe for our patients, are here given in detail, for the benefit of those who suspect they are taking habitually a larger allowance of alcohol than is compatible with health.

Alcoholic stimulants should never be taken in the morning before lunch. If one be obliged to do so habitually, it is certain that alcohol is gradually getting a hold on the individual, which he will not easily throw off. If, in exceptional cases, a person be called upon to undergo unusual fatigue in the morning, and feel the necessity for a stimulant, a glass of beer may be taken. No one in good health should ever take wine or spirits in the morning.

If anyone fear that he is taking too much alcohol, the easiest way to limit the quantity is to drink the same allowance of the same wine every day. This, for various reasons, should be brown sherry, and should be taken as follows: either two glasses after lunch and two after dinner, or one and a half after lunch, the same after dinner, and one with a biscuit in the afternoon. During lunch and dinner, water must be drunk, and wine taken only at the end of the meal.

No healthy man should ever take more than four glasses of wine daily as his usual allowance, and should reduce this to three if possible. Those who are accustomed to wine should not take less than this every day.

Those who wish to become teetotallers should leave off alcohol very gradually, and the period during which this reformation is brought about should extend over not less than two years.

No healthy man should ever touch spirits, whether raw or diluted, except under specially exceptional circumstances, as, for instance, after great exposure to wet or cold. Liqueurs at dinner are also to be avoided.

Roughly speaking, one tumblerful of beer contains about the same amount of alcohol as one wineglassful of wine or half a wineglassful of brandy.

Ladies who are in good health should take one glass of sherry or claret at lunch; one and a half ordinarily at dinner; one glass of champagne and one of claret at dinner-parties; and two glasses of champagne with seltzer water at balls.

Ladies in delicate health, who are going to ride in the park, if they have breakfasted early and do not lunch until late, may take a glass of dry sherry and a biscuit before starting for their ride.

Men, at dinner, may take a glass of sherry with their soup, if they have not had one in the afternoon; no hock; a glass and a half of champagne and one of sherry or claret after dinner. If they will keep to this, they may dine out as often as they like, and it will not hurt them.

At public dinners, the same rules should be observed; but, as there *are* occasions on which it is almost impossible to avoid drinking much, it is then recommended that they should either have a tumblerful of water by their side, and drink a mouthful of it after every sip of wine, or that they should drink champagne and seltzer water, half and half, all through dinner.

At balls, the safest drink as refreshment is claret-cup. Bad claret is the least offensive bad wine. A biscuit should be taken with it. It is astonishing what reparative powers there are in a biscuit. This hint was obtained from a volunteer who had tried it successfully during the autumn manœuvres.

At supper, under all circumstances, champagne should be diluted with seltzer water. If the champagne be questionable, claret-cup should be taken, or beer, if it can be got.

Wine should never be taken undiluted, especially on an empty stomach, when one is hot and dusty. This rule particularly applies to travelling.

Brandy and soda-water should be avoided as rank poison. Diluting the brandy does not destroy its pernicious effects; and the soda-water, by its bulk, acts most injuriously by separating the food from the walls of the stomach, thus preventing the gastric juice from having free access to it and assisting in the process of digestion.

If these rules have been neglected, and a severe bilious headache be the result, nothing short of an emetic, which may consist of a tablespoonful of mustard in a tumbler of hot water, will be effectual.

If a person suspect that he has taken bad wine, and fear the result, it is a good plan to take about thirty grains of carbonate of soda, *on the same night*, before going to bed.

Mild bilious attacks may be treated by soda, sal volatile, ether, and peppermint-water, taken before breakfast and during the day between meals.

The best kind of supper to have at home is a biscuit and a glass of water.

Finally, wine is a good friend, but a bad enemy. It is the abuse, and not the use of alcohol, which is injurious; and, in using it, let us not forget the motto of Abernethy, who, when asked what virtue was most conducive to a healthy life, replied in one word—"Moderation".

THE PHYSIOLOGICAL AND CHEMICAL ACTIONS OF ALCOHOL.

By THOS. P. LUCAS, M.R.C.S.E., L.R.C.P.Edin., L.S.A.

A KNOWLEDGE of the physiological and chemical actions of medicines is especially essential to every medical practitioner. To administer drugs on a mere routine, or even from the apparent successes of a long experience, is to reduce medicine to the rank of an art. In such practice, the success or failure must depend entirely on the memory and training of the practitioner. A young man must simply flounder as best he can through a series of blunders, learning from experience, whereas the aged and well versed in medical lore must often need to tread in hazy and uncertain tracks.

The administration of alcohol by medical men, as a medicine or as an article of diet, is a matter of policy which is being severely commented upon by a large number of the public. To defend our position, it is necessary to obtain a clear conception of the action of alcohol on the human frame. The study of the question is a difficult one, and needs to be approached with great caution. It is the more difficult, because medical men are not agreed as to the nature of its action. The one school, following in the steps of Baron Liebig, assert that alcohol is entirely burnt off in the body as carbonic acid and water or acetic acid and water. Another school asserts that such is not the case, but that the whole, or nearly the whole, of the alcohol passes off from the body unchanged. Dr. Dupré has recently conducted a careful series of experiments, in which he appears satisfactorily to prove that only a small percentage of the alcohol taken could be again collected from the various excreta. Dr. Subbotin, on the other hand, gave a large quantity to some rabbits and re-collected a large percentage from the breath and urine. Doubtless, both gentlemen were correct in their experiments, but the two series were not equal. Dr. Dupré gave small quantities to men; Dr. Subbotin large quantities to rabbits. Alcohol, to be burnt off from the body, must unite with oxygen, which chemical change could not take place, unless as rapidly as oxygen was available. There is a vast difference between the respiratory viscera of a man and of a rabbit, consequently a much larger quantity could be burnt off in the body of the former than in that of the latter. The quantity given by Dr. Subbotin to the rabbits was excessive; hence he re-collected some of the alcohol, simply because it would be passed off with the excreta mechanically. Remaining unconsumed in the general circulation, owing to a lack of oxygen sufficient to burn it off rapidly, it would pass off mechanically, just as any of the watery part of the blood might; only, as proved, at about one-fifth the ratio that water does. Thus, in a rabbit weighing 3 lbs., and so containing four or five ounces of blood, if I were to inject one ounce of alcohol, the blood would contain 20 per cent. of alcohol mechanically held in solution. Thus, in one hundred drops or minims of urine excreted, I should expect to find one-fifth of 20 per cent., equal to four minims, of alcohol. As the alcohol began to oxidise, the amount found in the excreta would decrease, simply because burnt off in the system and forming a gradual decreasing percentage of the blood.

Dr. Edward Smith endeavoured to show that alcohol passed off unchanged; but, as Dr. Dupré pointed out, there is an acid in the urine which acts to the chromic acid-test in a similar manner to alcohol; hence it is necessary, to secure accuracy, in the first place to make check experiments. Dr. Smith does not seem to have noticed this. A few considerations appear to me clearly to prove the correctness of Dr. Dupré's experiments, and the conclusions at which he arrives.

1. The experiments were performed with great care and verified by check experiments.

2. If alcohol passed off mechanically unchanged, it would not interfere with chemical combustion, whereas it does, and, as Dr. Smith's own experiments show, materially alters the ratio of carbonic acid and watery vapour in the expired air. It appropriates all or the greater part of the available oxygen, so that the fats and sugars obtained from the foods and the wastes of the body, and which naturally ought to be burnt off, cannot be consumed in its presence, and so are laid up in the tissues or got rid of in other ways. The fat landlord and the bloated drinker are both examples of this. The quantity of milk available in mothers taking large quantities of alcohol cannot be accounted for on any other hypothesis. In a case which, a short time ago, came under my notice, a woman unaccustomed to alcohol, during pregnancy, became an inveterate drinker. The infant, when born, was literally a mass of fat. In a *post mortem* examination of a gin-drinker who died from apoplexy, I found that the heart and liver were permeated with fat, and could be broken down under very slight pressure; the coats of the stomach and intestines were separated and thickened with fat. Fat was stored up in every available position. Such phenomena as the above could not be accounted for, if alcohol did not decompose in the system, and thus interfere with the natural combustion.

3. The passage of unchanged alcohol would set up irritation and inflammation in all the excreting organs. We should have pneumonia, laryngitis, nephritis, and other diseases. Coldness of the skin would be a sequent, for the evaporation of the alcohol from the skin would cause an increased radiation of heat, and thus leave the parts chilled or cold. I have lately performed experiments proving the correctness of this assertion. I took a batch of rabbits one month old. To one I gave twenty-five drops of rectified spirits of wine in a little water; it immediately dropped down dead. I gave to a second seventeen drops in the same way. It fell on its side, but recovered. It never, however, seemed to regain its natural vigour, and died in nine days. The *post mortem* examination showed congestion of the dura mater, and very severe congestion of the liver, which was almost black. The folds of the bowel in contiguity to this viscus were also congested. To a third I gave 193 drops of spirits of wine within the hour, but warded off immediate death by means of strychnine. The animal died in six weeks. On making the *post mortem* examination, I found slight congestion of the dura mater, but severe congestion of the liver, which was black and literally rotten. The intestine was also severely congested, doubtless in a great measure from the action of the strychnine. In this case, a large amount of alcohol was kept in the blood of the rabbit by artificial means (equal to seven to eight pints in an ordinary-sized man). The result was, that there was not oxygen available to the extent required for its rapid combustion and elimination; hence the severe mischief set up by its presence.

4. The double action of alcohol as a stimulant and narcotic is against reason. It can only be accounted for in another manner, as I hope presently to prove.

Having shown that alcohol is burnt off in the human economy, excepting such as passes off mechanically, the next point for consideration is its action on the frame. Dr. Anstie considers it a stimulant in small doses and a narcotic in large. Dr. Edmunds, in a paper read before the British Medical Association last year, considered it a narcotic. He accounted for the stimulant or excitor symptoms as merely "a play of the coarser faculties let loose by the narcotisation of those finer sympathies which are designed to govern and regulate the others". This is certainly an ingenious method of meeting a difficulty. Because Disraeli and Gladstone pour out effusions of eloquence and become excited in the effort, are those outbursts simply the play of "coarser faculties let loose" by means of some narcotic acting on the *finer sympathies* of their nature? Because a man's appetite is keen, does it but show a falsehood, and implore nothing but the abstinence from food? According to Dr. Edmunds's theory, all narcotics narcotise, but all stimulants merely cause a play of deceptive phenomena.

To adopt Dr. Anstie's theory, and to say that alcohol is a stimulant in small doses and a narcotic in large, is to assert an apparent contradiction. It is only natural to infer that, if a small dose stimulate, a larger dose must stimulate to a still greater extent. If, then, this large dose narcotise, it must be the result of prior stimulation to paralysis of the nerve-centres upon which the alcohol acts. This reasoning must involve us in a sea of difficulties. In the first place, we get paralysis of the brain, or portions of it; such paralysis, if occurring naturally in a patient, is looked upon as a most serious malady, and generally entails a bad prognosis; but, when occurring artificially or at the bidding of the practitioner using this line of argument, it creates no alarm. In the second place, allowing such nerves or nerve-centres to be paralysed, by what means or nerves is a contra-action set up, and by what means do the paralysed nerves receive life again?

What, then, is the action of alcohol? I maintain that it is *a pure stimulant*. It flushes the face, reddens the ears, stimulates the trigeminus nerve, warms the body generally, and stimulates the animal passions, even beyond the control of the will. If given in large enough dose, it stimulates to death. Thus, when a person takes a large amount, *e.g.*, a quart of brandy or rum at a draught, the probability is, that he will fall down dead, not from the shock, as commonly supposed, but stimulated to death, all the nerve-power being at once stimulated or called into play. Thus the person dies from the exhaustion of nerve-force.

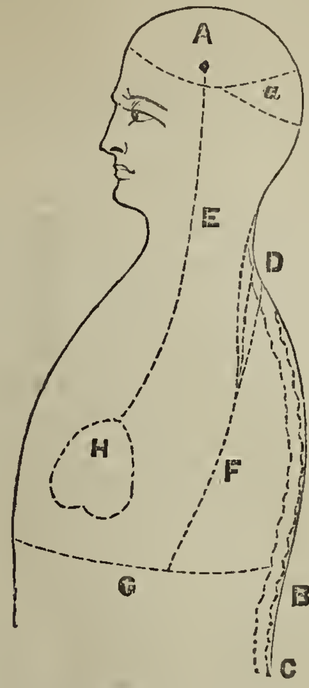
There are, however, other phenomena resulting from the administration of alcohol. These are the narcotic effects: stupor, sleepiness, drunkenness. They are not the result of the direct action of the alcohol, but are induced by the accumulating carbonic acid and impurities in the blood of the drinker, consequent on the decomposition of the alcohol. The same symptoms occur if a person descend into a sewer or deep well loaded with carbonic acid. Animals thrown into the carbonic acid lake in the Island of Java exhibit the same phenomena, and persons killed by the choke-damp in colliery-explosions are affected in a similar manner. No stimulant action will induce drunkenness. I stimulated a cat to death with ammonia. The phenomena exhibited were essentially those of increased vitality; inflammation of the eyeballs, pneumonia, inflammation of the brain-membranes, and inflammation of the skin to such a degree that it peeled off. Such were the results of the stimulus. The pneumogastric nerve was stimulated to such a degree, as to contract the muscular fibres of the heart, so that the chambers were kept permanently empty; the result was death. Stimulant action always draws out latent nerve-power, provided such be present. Thus the phenomena exhibited are those of strength, whereas narcotic effects are precisely the opposite. In proof of the doctrine, that alcohol stimulates in large enough dose beyond the control of the will, I will briefly detail two cases which lately came under my notice. A short time ago, a patient consulted me for secondary syphilis. He was strictly moral; but, being at an evening party, he partook rather freely of wine. He left, intending to get a cab, but suddenly lost all recollection. Next morning, he found himself with a fallen one in a house of ill-fame. His mortification was so great, that I feared he would commit suicide. The syphilis was clear proof that the passions had been stimulated beyond the control of the will. The excited, rapid conversation of drinkers, and the extraordinary crimes committed under its influence, are further proofs of stimulation beyond the control of the will. A woman, who is still living, makes it a practice to drink above a pint of neat gin before breakfast; she seems to require such a stimulus to enable her to digest her breakfast, which is unusually large. Those who have seen her say she never seems to get drunk. I need scarcely say that she suffers from severe attacks of gravel.

In habitual drinkers, the continued stimulation exhausts the nerve-power. A few weeks ago, I was called in to see a man who was a habitual drinker. His daily diet was a pint of milk, which he washed down with five ounces of whiskey. The nerves were kept stimulated, and their latent power called into play, by alcohol. They thus became exhausted. Nature endeavoured to repair the mischief, the result of which was, that he slept for weeks. Before his death, he slept for nearly a month. He appeared too weak to stir across the room. It was too much trouble for him to speak. He died *utterly exhausted*.

I think it will be allowed that I have shown that the apparent contrary effects produced, on the administration of alcohol, result from different causes. The stimulant is produced by the alcohol; the narcotic by the carbonic acid. These two series of phenomena are going on at one and the same time, in a varying ratio, according to the amount of decomposed or undecomposed alcohol. These different actions are consequent on the operation of two series of nerves, the cerebro-spinal being essentially excitor and the sympathetic essentially depressor. All medicines which stimulate or call into play vital actions act by means of the cerebro-spinal nerves, whereas all medicines which narcotise or depress, as aconite, opium, chloroform, etc., act by means of the sympathetic nerves. To counteract a severe stimulus to the one series of nerves, it is necessary to stimulate to a higher degree the other series. Thus, when a gall-stone is passing through the ductus communis choledochus, a person may take as much opium as would ordinarily poison before he gets relief. The result of the experiments on antagonistic medicines related by Dr. Hughes Bennett of Edinburgh, at the late meeting of the Association, is easily explained on this doctrine. Looked at in this light, narcotism or drunkenness is the safety-valve of the drinker. Were it not for such, every habitual drinker would sooner or later be stimulated to death.

In studying the action of alcohol, I have observed another law, which accounts for several of Dr. Bennett's experiments—viz., that medicines which act upon different portions of the same series of nerves counteract and modify each other. Thus atropine and morphia, alcohol and strychnine, modify each other. Alcohol will instantaneously relax the spasms in cases of strychnine poisoning. Great care is necessary in this experiment not to give an overdose of the alcohol, lest the animal die. After stimulating a cat to a high degree with alcohol and strychnine (three grains), I failed to cause it much inconvenience by strong ammonia. It merely carelessly moved its head aside from the stimulant, and leisurely walked to another part of the room.

The accompanying diagram will illustrate my meaning. The action of alcohol is to stimulate the origin of the pneumogastric nerve, E, and the adjacent parts of the brain. If pushed to excess, it stimulates the nerve-currents so severely towards that point, as to subtract them from the spinal cord from below upwards. This is doubtless another cause of drunkenness—the absence of nerve-currents passing down the spine to keep the muscles of the lower extremities contracted and contracting; hence the creature first loses power in its hind legs, then in its fore legs. (If the stimulus be pushed, the diaphragm, G, only acts spasmodically; and this, together with stimulus of the glosso-pharyngeal nerve, accounts for the various degrees of chronic alcoholism.) When drunkenness is established, if the nerve-currents be stimulated to the lower portion of the spinal cord by the power of the will, if strong enough, or artificially by strychnine, the muscles will again act, and the drunkenness pass off. Thus we see that there is a three-fold cause for drunkenness: 1. The stimulus to the brain, exhausting its substance; 2. The withdrawal of nerve-currents from the lower part of the spinal cord; and 3. The accumulation of the carbonic acid and other impurities, which act more speedily and effectually because of the exhausted and inactive nerves.



A. Cerebrum. *a*. Cerebellum. D B C. Spinal Cord. F. Phrenic Nerve. G. Diaphragm. H. Heart.

It is urged that alcohol prevents waste; but is such theory correct? Waste is caused by motion, voluntary or involuntary. The administration of alcohol prevents the burning off of fats and sugars, whether derived from the food or the consequent of wasting tissue. Hence there is less carbonic acid in the breath and less urea in the urine. There is less waste eliminated, but such is not proof that there is less waste held in suspension in the blood. If there be less waste, it shows lessened activity, and is, doubtless, consequent on the depressor action of carbonic acid. To give alcohol for this purpose in active disease cannot be wise. The deposition of fats and sugars in the tissues and fluids of the body, consequent on the chemical combustion of alcohol, lays the foundation of numerous and chronic diseases. It will thus be seen that, as a rule, alcohol, in large and continued doses, is not a medicine on which we can rely. If, in disease, we would administer a stimulant, such cannot be the remedy, because of its depressor action. If, on the other hand, we wish to give a depressor remedy or antipyrexic, alcohol cannot be the remedy, because of its stimulant action. Its stimulant action is not continuous, and the double action is exhaustive. If alcohol be useful at all, it seems to me to be in extreme weakness after long exhaustive disease. In such cases, a light unadulterated wine, diluted with water, might gently aid to tone the exhausted nerve-power; but the administration should be carefully watched and skilfully managed, even as in the case of any other medicine, lest exhaustion, on the one hand, or too great depression, on the other, be produced. If by small doses the depressed nerve-powers be restored, without being materially lowered by the small amount of carbonic acid generated, then alcohol does good. Like ammonia, it relieves in syncope. It is also evident that alcohol would act beneficially where the double action is required. Such cases are the exception, the only one presenting itself to my mind being in prolonged labour-cases. Here the stimulant action would tell on the fibres of the fundus of the uterus, and the sedative on those of the cervix and os uteri. In this case, however, ergot, on the one hand, and opium and chloroform, on the other, subserve the same purpose and without the danger of exhausting the nerve-power. Medical men should not trust the administration of alcohol in the hands of patients. It is a severe irritant, and, by reason of its decomposition, narcotic poison. To prescribe unlimited quantities and unknown potencies for any and every disease is unprofessional. If we think alcohol necessary, we are justified in prescribing it; but we ought to use the spirit of wine. To give brandy or port, is to give we know not what. What would be thought of a practitioner ordering his patients to take a few tumblers of sea-water whenever he wished to give the iodide of potassium? or ordering them to take mineral waters whenever he wished to administer iron? Yet such is the practice with regard to alcohol. We give it for all diseases, and in unknown strengths. Such prescribing is not worthy the sages of a learned profession. Our medicines are so numerous, that it is unnecessary for objectors ever to use alcohol, while the moral and religious aspects of the question require the practitioner to exercise the utmost caution in administering such a powerful and destructive drug.

ON PLEURITIC EFFUSION.

By JOHN RICHARD WARDELL, M.D., F.R.C.P.,
Physician to the Tunbridge Wells Infirmary.

[*Continued from p.* 580 *of last number.*]

THE above reported cases present many features of great pathological and practical interest; and they prove, as before remarked, that pleuritic effusion, even when in considerable quantity, is not to be looked upon with such dread as it was formerly contemplated. In the great majority of instances, it is amenable to treatment, and in many cases patients now make a full recovery, who would, if they had been subjected to the inert means formerly adopted, unquestionably have perished. Of the foregoing eighteen examples, twelve were males and six females. That men are more prone to pleuritic inflammation than women, most writers do not fail to point out; and this tendency of the former may doubtless be accounted for by their greater exposure to vicissitudes of temperature, and being more accustomed to indulging in alcoholic and fermented liquors. With regard to age, three were under 10 years, three from 10 to 20, five from 20 to 30, three from 30 to 40, three were 40, and one 65; the greatest number thus being in the third decade. Twelve made a full recovery, four were greatly relieved, and only two died. In one of those fatal cases (6) the gravest symptoms had shown themselves when he came into the hospital; there was distressing dyspnœa, the heart was thrust out of its position, the legs had become œdematous, and a general dropsical tendency was apparent. The introduction of the trocar, which in two places was attempted, did not reach the fluid, because, as inspection afterwards revealed, the lung was broadly adherent to the thoracic wall. If this operation had been performed at an earlier date, it would doubtless have conferred great relief to the distress under which he suffered, though it might not, perhaps, have fully arrested the progressive phenomena of his phthisical condition. The other patient who died was a pale, debilitated woman, whose vital energies had, by previous illness, been much lowered, and she sank by asthenia rather than from any effects of the shock produced by the operation. In six, the effusion was in the right, in twelve, in the left side. All authors agree that this event is of most frequent occurrence in the last named half of the thorax. In thirty-six fatal cases, given by Hasse, nine were double (hydrothorax?), ten in the right, and sixteen in the left, side. Of fifty-six examples by Mohr, nineteen were in the right, and thirty-seven in left. Copland, Hughes, and Hamilton Roe, notice the same fact of predilection for that side. MM. Rilliet and Barthez assert that, in children, pleurisy, in the uncomplicated state, is more frequent in the right than in the left side; whilst, in complicated cases, it is most frequent in the left. Again, it has been maintained that paracentesis is not equally favourable in both sides of the chest. In a work published by Aran, some years ago, he affirmed that, in right effusions, thoracentesis produces only a temporary benefit, that the fluid reaccumulates, or tuberculosis follows. Hippocrates believed more recoveries resulted from opening the left than the right side. Trousseau says he cured a large number of pleurisies with effusion in the right chest. This physician also believed that right pleurisy is very generally of tuberculous origin. Bowditch's experience in this particular is opposed to the opinion of Trousseau. The first-named writer found that, in twenty-five cases, fourteen were of the right, and only eleven of the left side. Of the former number, only one had tubercles, and in that the pleurisy was cured. The result of tapping in Bowditch's cases was, that twice as many recovered from tapping of the right as of the left side. With regard to what I have said relative to the frequency of effusion in the left thorax, it may, perhaps, mainly be explained by the fact, commonly acknowledged, that the left pulmonary apex is more prone to tubercular deposits than any other part of the lungs; and, as we know that secondary pleurisies often are followed by serous, sero-purulent, and purulent collections, thus it is that these products are most commonly found in this cavity.

In fourteen out of the eighteen cases, the average time under treatment was 59.9 days. The time, however, elapsing before recovery eventuates, is necessarily, most various. This will depend upon many circumstances, such as the nature of the disease by which the effusion is produced; the kind of liquid which is poured out; the age; the amount of vital energies inherent in the patient, and, consequently, the degree of absorptional power in the system; the mode of treatment which has been selected; the period which has passed before medical agents have, or instrumental aid has, been brought to bear on the case; and the thickness, extent, and tenacity of the false membranes which have been formed. The restoration to health is doubtless far more speedy when the effusion is merely serous than when it is sero-purulent, and much more especially so when it is purulent. When thoracentesis is performed in empyema, the cure is often very protracted, because this kind of sequel implies a secondary or chronic form of inflammation in the serous membrane. In some cases, in which paracentesis was performed without delay—before time was allowed for false membranes to form, and bind down the lung and lessen the power of absorption—I have known recovery to be remarkably rapid. The modern practice is to tap early, and not to leave it until the powers are weakened and as a last resort. Since Trousseau advocated early interference, there has been much more boldness and decision. In one gentleman, in whose case I was consulted many years ago, a fistulous opening continued for between six and seven years; the sinus then gradually closed, and for twelve years he has been in robust health.

As already remarked, pleuritic effusion may be unilateral or bilateral. It may, however, be observed as a rule for our guidance, that liquid in both cavities, in nearly all cases, implies hydrothorax, when there is a different clinical history, and there are different subjective and objective symptoms; and hydrothorax is signally the episode of organic and constitutional disease. It is a sequent not having foregoing inflammation, nor is it accompanied by notable febrile phenomena; it is generally, as I have remarked, traceable to cardiac or renal changes; the heart is not displaced, and there is often pericardial dropsy; paroxysms of dyspnœa or threatened orthopnœa come on; and it is generally that condition which, after long and gradual alteration of structure, supervenes as the herald to dissolution. In one-sided effusion there has, in the majority of examples, been cognisable inflammation. Not unfrequently the inflammatory symptoms have been but indistinctly pronounced, and sometimes they have been scarcely pronounced at all. But careful inquiry generally elicits the acknowledgment of there having, at an earlier date, been sharp pains, or some condition which directed the patient's mind to his chest. He will say, that about such a time he had stitch in his side, accompanied with cough; that it was regarded as being rheumatism; that he could lie less easily on one side than on the other; that he was at some particular date unwell, after which the more disturbing symptoms passed away. Or, what is far more commonly the fact, there has been veritable pleurisy in the primary or the secondary form. In seventeen out of the eighteen cases above recorded, pleuritic inflammation had preceded. Primary pleurisy may eminently be regarded as unilateral; and double effusion as the sequel of pleurisy, is as before asserted, quite exceptional. When occurring in the left side, fluid in the pericardium may, by extension of the inflammation to the cavity of that organ, be the accompaniment; or pericarditis with effusion, as in case No. 9, may be the forerunner of left-sided pleurisy. Instances of double pleurisy do sometimes present themselves, when they are of the secondary form and the consequents of adynamic, malignant, or exanthematous fevers. When such examples are met with, there is a debased condition of the circulatory fluids, the exudative product is aplastic, and unlike those exudates which characterise the fibrogenic materials which in the sthenic types prevail.

It is not an uncommon thing for the presence of fluid in the pleural sac to be overlooked or unsuspected, and more especially in latent examples of pleurisy. In all instances in which there is an account of foregoing acute thoracic disease, with embarrassment of respiration on increased exertion remaining, or a feeling of uncomfortableness on lying on one particular side, the chest to the base should be thoroughly examined. For the want of such caution, I have known the complaint to have been quite passed over, and grave consequences ensue. When the presence of fluid is not detected, but long remains, the chances of cure become far less speedy and much more uncertain. The mechanical disturbance which a large quantity of liquid in the chest confers to the heart and lungs, is one of the most prominent of the symptoms. In no less than fifteen out of the eighteen cases now given, dyspnœa in greater or less degree was proclaimed. In some cases, a very small amount of effusion—even a very few ounces—will cause oppression, and, as the fluid increases, the breathing will become easier. In these exceptional examples, it would seem that the exudation, at the first, acts as an irritant, and that, in the course of time, the cavity becomes tolerant of its presence. We also know that, sometimes, hydrothorax supervenes with great rapidity, without being accompanied with any notable amount of acceleration of breathing. The inability to lie on either side is a symptom, as remarked, which never should be disregarded. In several of the above examples, the patients at once spoke of this fact; and, by lying in a particular posture, the uneasiness and sense of weight and oppression can be well understood. When the breathing is mainly carried on by one lung, and to recline on the sound side and thus diminish the costal mobility, and for the incarcerated fluid to also gravitate from above downwards and thus still further to press upon the organ, the respiration must necessarily become greatly interfered with. Notwithstanding that dyspnœa, as now insisted upon, is a common and a cardinal symptom, yet it must be held in mind that a large quantity of fluid may, in some exceptions, be collected in the pleural sac without such symptoms being at all marked, and almost without any degree of inconvenience being produced. The absence, therefore, of oppression is not so far to be depended upon as to put us at ease, under the notion that no effusion exists. The physical examination of the chest should not be deferred.

[*To be continued.*]

REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

VI.—ANTAGONISM BETWEEN TEA, COFFEE, COCAINE, THEINE, CAFFEINE, AND GUARANINE, ON THE ONE HAND, AND MORPHIA ON THE OTHER.

THIS investigation is divided into three parts: 1. An inquiry into the physiological properties of cocaine, the active principle of the plant known as *Erythroxylon coca*, of theine, of caffeine, and of guaranine; 2. An inquiry to ascertain whether or not the active principles theine, caffeine, and guaranine, act as antagonists to fatal doses of morphia or opium; and 3. An inquiry to ascertain whether or not strong infusion of tea or decoction of coffee, when introduced into the stomach, act as antagonists to fatal doses of morphia or opium.

The complete ignorance that existed with regard to all these points rendered an extensive preliminary investigation necessary. It was carried out by Dr. Alexander Bennett, but was watched, and the results confirmed, by the Committee.

1. *The Physiological Properties of the Active Principles, Cocaine, Theine, Caffeine, and Guaranine.*

The general results from thirty experiments on frogs, mice, and rabbits, as to the physiological action of cocaine, were as follows.

1. The physiological actions of erythroxylon coca are due to its proximate principle, cocaine.

2. Cocaine is a powerful poison, inducing a series of symptoms affecting the nervous, respiratory, circulatory, and vaso-motor systems, which terminate, if the dose be large enough, in death.

3. Cocaine, in small doses not ending fatally, produces—1, cerebral excitement, not succeeded by coma; and 2, partial loss of sensibility.

4. In large doses, cocaine produces—1, cerebral excitement; 2, complete paralysis of sensibility; 3, tetanic spasms and convulsions; and 4, death.

5. Cocaine paralyses the entire posterior columns of the spinal cord, also the entire system of peripheral sensory nerves; but the anterior columns of the cord and the peripheral motor nerves are not paralysed.

6. Cocaine frequently produces convulsions of a clonic character; but occasionally it causes tetanic spasms, which latter are sometimes so severe as to produce opisthotonos. There is, at first sight, a resemblance between these spasms and those following the administration of strychnine; but, in the case of strychnine, the action of the poison is limited to the spinal cord, the reflex function of which is so much excited that the slightest touch from without, causes powerful spasms. A poisonous dose of cocaine, on the other hand, paralyses the sensory nerves, so that external irritations do not affect the cord; but, notwithstanding, there are strong spontaneous spasms, which are probably caused by the reflex action of the drug on the cord itself, and which spasms are not to be considered as reflex in their nature.

7. Cocaine does not produce muscular paralysis.

8. Cocaine at first increases, then impedes, and lastly stops, respiration.

TABLE XXXV.—*Experiments with Cocaine.*

No. of Experiment.	Animal.	Doses in grains.	General Effects.	Result.	*Post Mortem* Examination.
380	Frog	1-128th	Slight weakness of limbs.	Recovery	
381	Frog	1-64th	Weakness of limbs.	Recovery	
382	Mouse	1-32nd	Weakness of limbs; slight congestion of cutaneous surface.	Recovery	
383	Frog	1-32nd	Considerable weakness of limbs; respiration impeded.	Recovery	
384	Mouse	1-32nd	Gradual weakness of limbs, ending in complete paralysis; cutaneous congestion; loss of reflex action; prostration.	Death	Congestion of membranes of brain, skin, and viscera. When brain, spinal cord, nerves, or muscles, were irritated with electricity, muscular contractions ensued. Posterior columns irritated, no contractions; anterior columns irritated, strong contractions.
385	Frog	1-32nd	Ligature of the heart; right calf of leg injected. After no movement on irritation, on pinching left calf movements of entire body, including right leg.	Death	
386	Mouse	1-32nd	Same as No. 384; in addition, tetanic spasms.	Death	Same as No. 384.
387	Frog	1-16th	Gradual prostration; paralysis of limbs and loss of reflex action.	Recovery	
388	Frog	1-12th	Weakness of limbs at first; paralysis of limbs after. Loss of reflex action; stoppage of respiration; congestion of skin; stasis of blood in capillaries.	Death	Same as No. 384.
389	Frog	1-10th	Ligature of femoral artery; symptoms same as No. 388; No difference in two legs.	Death	Same as No. 384. No difference between two legs.
390	Frog	1-10th	Observation on lower part of spinal cord, which was exposed. Same as No. 388.	Death	Same as No. 384.
391	Frog	1-10th	Observations on upper part of spinal cord, which was exposed. Same as No. 388.	Death	Same as No. 384.
392	Frog	1-10th	Spinal cord exposed during life. Any part of cord touched with needle, strong muscular contractions. Other symptoms same as No. 384.	Death	Same as No. 384. When posterior columns were irritated with point of needle, no muscular contractions; when anterior columns were irritated, contractions ensued.
393	Frog	1-8th	Same as No. 388, but more rapid.	Death	Same as No. 384.
394	Rabbit	3+2+2+2+3	From first dose, congestion of ears; from second dose, slight cerebral excitement; from third dose, great irritability, no loss of sensibility; from fourth dose, congestion of ears increased; from fifth dose, depression, staggering gait. Numbers of respirations and pulsations of the heart—1st increased, and 2nd diminished. Temperature: 1st diminished, & 2nd increased.	Recovery	
395	Frog	1-32nd	Same as No. 384. Number of respirations—1st increased, 2nd diminished, and 3rd stopped.	Death	Same as No. 384.
396	Frog	1-32nd	Same as 384. Pulsations of the heart—1st increased, 2nd dimin., & 3rd stopped.	Death	Same as No. 384.

9. Cocaine at first increases, and finally diminishes, both the force and frequency of the heart's contractions.

10. Cocaine produces at first contraction, afterwards dilatation or paralysis, of the capillaries and small blood-vessels, with stasis of the blood, indicating first irritation and subsequent paralysis of the vasomotor nerves. This action of cocaine upon the capillary blood-vessels, now described for the first time, is of great interest, as it simulates the action of the drug in this respect to that of nitrite of amyl described by Dr. Richardson.

TABLE XXXVI.—*Experiments with Extract of Coca.*

No. of Experiment.	Animal.	Dose in grains.	General Effects.	Result.	*Post Mortem* Examination.
397	Frog	1	No apparent effects.	Recovery	
398	Mouse	1	Slight weakness of posterior extremities.	Recovery	
399	Frog	1+¼ carb. pot.	No apparent effect.	Recovery	
400	Frog	2	Weakness of limbs; impaired respiration.	Recovery	
401	Frog	2+½gr. carb. pot.	Symptoms same as No. 400.	Recovery	
402	Mouse	2	Weakness of limbs; congestion of under cutaneous surface; slight convulsion; prostration; loss of reflex action.	Death	Heart beat feebly; thoracic and abdominal viscera congested; when spinal cord, sciatic nerve, or muscles were irritated with Faradic current, there were muscular contractions.
403	Frog	3	Weakness at first; stoppage of respiration; loss of reflex action; prostration.	Death	Heart still beating; congestion of the thoracic and abdominal viscera; when brain irritated, contraction of muscles of face ensued: current applied to cord, nerves, or muscles, powerful muscular contraction.
404	Frog	4	Prostration, with symptoms as in No. 403.	Death	Appearances & phenomena as in No. 403.
405	Frog	5	Rapid prostration; symptoms the same as No. 403.	Death	Appearances & phenomena as in No. 403.
406	Rabbit	12	No apparent effect.	Recovery	

Numerous experiments (about seventy) were made with theine, caffeine, and guaranine, on cats, rabbits, mice, and frogs.

The following tables show the effects on the respirations, cardiac pulsations, and temperature.

TABLE XXXVII.—*Showing the Effects of Cocaine on the Respiratory Movements of a Rabbit.*

Normal Respirations taken at intervals.

1. Per ¼ minute,	48	5. Per ¼ minute,	34	9. Per ¼ minute,	44
2. ,,	48	6. ,,	40	10. ,,	40
3. ,,	42	7. ,,	44	11. ,,	40
4. ,,	40	8. ,,	36	12. ,,	42

Respirations after Injection of Cocaine per ¼ Minute

13. 38	per ¼ minute, at	12.41 P.M.	31. 64	per ¼ minute, at	1.20 P.M.
14. 54	,,	12.46 ,,	32. 60	,,	1.25 ,,
15. 50	,,	12.48 ,,	33. 50	,,	1.27 ,,
16. 56	,,	12.50 ,,	34. 56	,,	1.29 ,,
17. 52	,,	12.52 ,,	35. 50	,,	1.31 ,,
18. 54	,,	12.54 ,,	36. 60	,,	1.33 ,,
19. 56	,,	12.56 ,,	37. 64	,,	1.35 ,,
20. 48	,,	12.58 ,,	38. 58	,,	1.37 ,,
21. 44	,,	1.0 ,,	39. 56	,,	1.39 ,,
22. 42	,,	1.2 ,,	40. 50	,,	1.41 ,,
23. 45	,,	1.4 ,,	41. 68	,,	1.43 ,,
24. 52	,,	1.6 ,,	42. 70	,,	1.46 ,,
25. 44	,,	1.8 ,,	43. 58	,,	1.48 ,,
26. 50	,,	1.10 ,,	44. 56	,,	1.50 ,,
27. 54	,,	1.12 ,,	45. 56	,,	2.3 ,,
28. 56	,,	1.14 ,,	46. 62	,,	2.5 ,,
29. 58	,,	1.16 ,,	47. 54	,,	2.7 ,,
30. 60	,,	1.18 ,,	48. 56	,,	2.9 ,,

TABLE XXXVIII.—*Showing the Effects of Cocaine on the Cardiac Pulsations of a Rabbit.*

Normal Cardiac Pulsations taken at intervals.

1. Per ¼ minute,	68	5. Per ¼ minute,	54	9. Per ¼ minute,	60
2. ,,	60	6. ,,	60	10. ,,	66
3. ,,	60	7. ,,	60	11. ,,	66
4. ,,	64	8. ,,	62	12. ,,	66

Pulsations after Injection of Cocaine.

13. 62	per ¼ minute, at	12.45 P.M.	31. 78	por ¼ minute, at	1.26 P.M.
14. 64	,,	12.47 ,,	32. 84	,,	1.28 ,,
15. 66	,,	12.49 ,,	33. 76	,,	1.30 ,,
16. 64	,,	12.51 ,,	34. 82	,,	1.32 ,,
17. 68	,,	12.53 ,,	35. 80	,,	1.34 ,,
18. 70	,,	12.55 ,,	36. 78	,,	1.36 ,,
19. 64	,,	12.57 ,,	37. 78	,,	1.38 ,,
20. 58	,,	12.59 ,,	38. 56	,,	1.40 ,,
21. 64	,,	1.1 ,,	39. 72	,,	1.42 ,,
22. 64	,,	1.3 ,,	40. 86	,,	1.45 ,,
23. 60	,,	1.5 ,,	41. 80	,,	1.47 ,,
24. 70	,,	1.7 ,,	42. 74	,,	1.49 ,,
25. 84	,,	1.9 ,,	43. 75	,,	1.51 ,,
26. 56	,,	1.16 ,,	44. 80	,,	2.44 ,,
27. 80	,,	1.18 ,,	45. 82	,,	2.6 ,,
28. 86	,,	1.20 ,,	46. 90	,,	2.8 ,,
29. 84	,,	1.22 ,,	47. 80	,,	2.10 ,,
30. 82	,,	1.24 ,,	48. 76	,,	2.12 ,,

TABLE XXXIX.—*Showing the Effects of Cocaine on the Respiratory Movements of a Frog.*

Normal Respirations taken at intervals.

1. Per ¼ minute,	20	5. Per ¼ minute,	18	9. Per ¼ minute,	22
2. ,,	22	6. ,,	24	10. ,,	21
3. ,,	21	7. ,,	22	11. ,,	21
4. ,,	21	8. ,,	18	12. ,,	21

Respirations after Injection of Cocaine.

13. 32	per ¼ minute, at	8.34 P.M.	24. 11	per ¼ minute, at	8.45 P.M.
14. 36	,,	8.35 ,,	25. 11	,,	8.46 ,,
15. 35	,,	8.36 ,,	26. 9	,,	8.47 ,,
16. 36	,,	8.37 ,,	27. 9	,,	8.48 ,,
17. 28	,,	8.38 ,,	28. 4	,,	8.49 ,,
18. 32	,,	8.39 ,,	29. 6	,,	8.50 ,,
19. 18	,,	8.40 ,,	30. 6	,,	8.51 ,,
20. 16	,,	8.41 ,,	31. 5	,,	8.52 ,,
21. 8	,,	8.42 ,,	32. 2	,,	8.53 ,,
22. 9	,,	8.43 ,,	33. 1	,,	8.54 ,,
23. 13	,,	8.44 ,,	34. 0	,,	8.55 ,,

TABLE XL.—*Showing the Effect of Cocaine on the Cardiac Pulsations of a Frog.*

Normal Pulsations taken at intervals.

1. Per ¼ minute,	10	5. Per ¼ minute,	11	9. Per ¼ minute,	12
2. ,,	12	6. ,,	10	10. ,,	12
3. ,,	11	7. ,,	11	11. ,,	10
4. ,,	12	8. ,,	11	12. ,,	10

Pulsations after Injections of Cocaine.

13. 16	per ¼ minute, at	8.53 P.M.	26. 12	per ¼ minute, at	9.6 P.M.
14. 15	,,	8.54 ,,	27. 12	,,	9.7 ,,
15. 14	,,	8.55 ,,	28. 10	,,	9.8 ,,
16. 14	,,	8.56 ,,	29. 11	,,	9.9 ,,
17. 12	,,	8.57 ,,	30. 10	,,	9.10 ,,
18. 12	,,	8.58 ,,	31. 9	,,	9.11 ,,
19. 13	,,	8.55 ,,	32. 8	,,	9.12 ,,
20. 12	,,	9.0 ,,	33. 9	,,	9.13 ,,
21. 13	,,	9.1 ,,	34. 8	,,	9.14 ,,
22. 12	,,	9.2 ,,	35. 6	,,	9.15 ,,
23. 13	,,	9.3 ,,	36. 7	,,	9.16 ,,
24. 10	,,	9.4 ,,	37. 6	,,	9.17 ,,
25. 12	,,	9.5 ,,	38. 6	,,	9.18 ,,

TABLE XLI.—*Showing the Effects of Theine on the Respiratory Movements of a Rabbit.*

Natural Respirations taken at intervals.

1. Per ¼ minute,	36	5. Per ¼ minute,	38	9. Per ¼ minute,	30
2. ,,	30	6. ,,	30	10. ,,	27
3. ,,	30	7. ,,	32	11. ,,	28
4. ,,	35	8. ,,	37	12. ,,	21

Respirations after Injection of Theine.

13. 30	per ¼ minute, at	12.33 P.M.	31. 34	per ¼ minute, at	12.51 P.M.
14. 42	,,	12.34 ,,	32. 36	,,	12.52 ,,
15. 48	,,	12.35 ,,	33. 40	,,	12.53 ,,
16. 50	,,	12.36 ,,	34. 36	,,	12.54 ,,
17. 50	,,	12.37 ,,	35. 36	,,	12.55 ,,
18. 52	,,	12.38 ,,	36. 40	,,	12.56 ,,
19. 50	,,	12.39 ,,	37. 36	,,	1.5 ,,
20. 44	,,	12.40 ,,	38. 30	,,	1.10 ,,
21. 40	,,	12.41 ,,	39. 35	,,	1.11 ,,
22. 42	,,	12.42 ,,	40. 38	,,	1.12 ,,
23. 40	,,	12.43 ,,	41. 37	,,	1.13 ,,
24. 35	,,	12.44 ,,	42. 36	,,	1.14 ,,
25. 35	,,	12.45 ,,	43. 35	,,	1.15 ,,
26. 34	,,	12.46 ,,	44. 36	,,	1.20 ,,
27. 32	,,	12.47 ,,	45. 35	,,	1.22 ,,
28. 33	,,	12.48 ,,	46. 26	,,	1.24 ,,
29. 38	,,	12.49 ,,	47. 17	,,	1.26 ,,
30. 36	,,	12.50 ,,	48. 14	,,	1.27 ,,

TABLE XLII.—*Showing the Effects of Theine on the Cardiac Pulsations of a Rabbit.*

Normal Pulsations of the Heart taken at intervals.

1. Per ¼ minute,	80	3. Per ¼ minute,	90	5. Per ¼ minute,	80
2. ,,	78	4. ,,	78	6. ,,	80

Pulsations of the Heart after Injection of Theine.

7. 84	per ¼ minute, at	1.47 P.M.	15. 86	per ¼ minute, at	2.15 P.M.
8. 80	,,	1.58 ,,	16. 70	,,	2.18 ,,
9. 86	,,	2.0 ,,	17. 74	,,	2.22 ,,
10. 88	,,	2.5 ,,	18. 84	,,	2.28 ,,
11. 80	,,	2.6 ,,	19. 74	,,	2.52 ,,
12. 80	,,	2.7 ,,	20. 86	,,	2.55 ,,
13. 82	,,	2.8 ,,	21. 70	,,	2.58 ,,
14. 86	,,	2.9 ,,			

TABLE XLIII.—*Showing the Effects of Theine on the Temperature of the Ear of a Rabbit.—Normal Temperature of Rabbit*, 33.8 C.

Temperature after Injection of Theine.

2.	33.2	per ¼ minute, at	2.0 P.M.	10.	33.5	per ¼ minute, at	2.33 P.M.
3.	34.2	,,	2.5 ,,	11.	33.4	,,	2.40 ,,
4.	34.1	,,	2.8 ,,	12.	33.4	,,	2.45 ,,
5.	34.9	,,	2.10 ,,	13.	33.5	,,	2.50 ,,
6.	35.5	,,	1.15 ,,	14.	32.8	,,	2.55 ,,
7.	34.6	,,	2.18 ,,	15.	33.9	,,	2.58 ,,
8.	34.9	,,	2.22 ,,	16.	33.5	,,	3.0 ,,
9.	35.1	,,	2.25 ,,	17.	33.9	,,	3.4 ,,

TABLE XLIV.—*Showing the Effects of Caffeine on the Respiratory Movements of a Rabbit.*

Natural Respirations taken at intervals.

1.	34	per ¼ minute, at	1.10 P.M.	4.	33	per ¼ minute, at	1.13 P.M.
2.	32	,,	1.11 ,,	5.		,,	1.14 ,,
3.	28	,,	1.12 ,,	6.		,,	1.15 ,,

Respiration after Injection of Caffeine.

7.	42	per ¼ minute, at	1.17 P.M.	13.	40	per ¼ minute, at	1.35 P.M.
8.	44	,,	1.19 ,,	14.	46	,,	1.37 ,,
9.	42	,,	1.21 ,,	15.	30	,,	1.40 ,,
10.	46	,,	1.24 ,,	16.	30	,,	1.42 ,,
11.	46	,,	1.29 ,,	17.	34	,,	1.45 ,,
12.	40	,,	1.33 ,,	18.	36	,,	1.48 ,,

TABLE XLV.—*Showing the Effects of Caffeine on the Cardiac Pulsations of a Rabbit.*

Normal Pulsations of the Heart taken at intervals.

1.	Per ¼ minute,	86	3.	Per ¼ minute,	82	5.	Per ¼ minute,	78
2.	,,	80	4.	,,	76	6.	,,	82

Pulsations after Injection of Caffeine.

7.	90	per ¼ minute, at	1.16 P.M.	11.	82	per ¼ minute, at	1.30 P.M.
8.	86	,,	1.18 ,,	12.	74	,,	1.35 ,,
9.	84	,,	1.22 ,,	13.	48	,,	1.45 ,,
10.	80	,,	1.25 ,,	14.	40	,,	1.48 ,,

Immediately after death, heart beats 12 per ¼ minute.

TABLE XLVI.—*Showing the Effects of Caffeine on the Temperature of the Ear of a Rabbit.—Normal Temperature of the Ear*, 33.9 c.

Temperature after Injection of Caffeine.

1.	35.6 c.	per ¼ minute, at	1.20 P.M.	3.	36.6 c.	per ¼ minute, at	1.35 P.M.
2.	35 c.	,,	1.27 ,,	4.	34.9 c.	,,	1.45 ,,

TABLE XLVII.—*Showing the Effects of Guaranine on the Respiratory Movements of a Rabbit.*

Normal Respirations taken at intervals.

1.	Per ¼ minute,	41	3.	Per ¼ minute,	34	5.	Per ¼ minute,	32
2.	,,	36	4.	,,	30	6.	,,	30

Respirations after Injection of Guaranine.

7.	48	per ¼ minute, at	4.20 P.M.	19.	36	per ¼ minute, at	4.50 P.M.	
8.	34	,,	4.22 ,,	20.	36	,,	4.55 ,,	
9.	44	,,	4.26 ,,	21.	28	,,	5.0 ,,	
10.	50	,,	4.31 ,,	22.	28	,,	5.2 ,,	
11.	64	,,	4.32 ,,	23.	30	,,	5.5 ,,	
12.	52	,,	4.33 ,,	24.	28	,,	5.8 ,,	
13.	38	,,	4.35 ,,	25.	20	,,	5.12 ,,	
14.	38	,,	4.38 ,,	26.	34	,,	5.15 ,,	
15.	40	,,	4.40 ,,	27.	18	,,	12.20	Next morning
16.	42	,,	4.43 ,,	28.	20	,,	12.22	
17.	42	,,	4.45 ,,	29.	22	,,	12.34	
18.	31	,,	4.48 ,,	30.	22	,,	12.26	

TABLE XLVIII.—*Showing the Effects of Guaranine on the Cardiac Pulsations of a Rabbit.*

Normal Pulsations of Heart taken at intervals.

1.	Per ¼ minute,	66	3.	Per ¼ minute,	78	5.	Per ¼ minute,	72
2.	,,	72	4.	,,	72	6.	,,	68

Pulsations of Heart after Injection of Guaranine.

7.	78	per ¼ minute, at	4.21 P.M.	19.	78	per ¼ minute, at	4.50 P.M.	
8.	80	,,	4.23 ,,	20.	60	,,	4.55 ,,	
9.	70	,,	4.25 ,,	21.	74	,,	5.1 ,,	
10.	74	,,	4.30 ,,	22.	76	,,	5.3 ,,	
11.	74	,,	4.33 ,,	23.	86	,,	5.7 ,,	
12.	74	,,	4.34 ,,	24.	80	,,	5.8 ,,	
13.	86	,,	4.35 ,,	25.	80	,,	5.12 ,,	
14.	86	,,	4.37 ,,	26.	80	,,	5.18 ,,	
15.	90	,,	4.38 ,,	27.	88	,,	1.21	Next morning.
16.	90	,,	4.43 ,,	28.	86	,,	12.23	
17.	90	,,	4.46 ,,	29.	78	,,	12.25	
18.	78	,,	4.49 ,,	30.	86	,,	12.27	

TABLE XLIX.—*Showing the Effects of Guaranine on the Temperature of the Ear of a Rabbit.—Normal Temperature of Ear*, 32.3 C.

1.	29.8	per ¼ minute, at	4.14 P.M.	7.	33.5	per ¼ minute, at	4.48 P.M.
2.	33.5	,,	4.25 ,,	8.	35.0	,,	4.50 ,,
3.	34.6	,,	4.30 ,,	9.	33.4	,,	5.5 ,,
4.	35.1	,,	4.32 ,,	10.	33.3	,,	5.12 ,,
5.	34.6	,,	4.35 ,,	11.	34.3	,,	12.30 ,, next morning.
6.	34.0	,,	4.43 ,,				

[*To be continued.*]

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ATROPIA AS AN ANTIDOTE TO POISONOUS MUSHROOMS.

By T. LAUDER BRUNTON, M.D., F.R.S.,
Casualty Physician and Lecturer on Materia Medica and Therapeutics at St. Bartholomew's Hospital.

IT is, perhaps, not very generally known that one of the most perfect instances of antagonism with which we are acquainted is the power of atropia to counteract the poisonous principle of mushrooms. This principle seems to be the same, or nearly the same, in different species of mushroom, for they all seem to have similar actions. The *Agaricus muscarius*, *A. phalloides*, *A. pantherinus*, *Boletus Satanas*, and *Russula fœtens*, all resemble one another in action; but the effects produced by the same sort of fungus may vary in different individuals. They all act more or less on the intestinal canal and heart, and apparently also on the brain. The usual symptoms are uneasiness in the stomach, vomiting, purging, a feeling of constriction in the neck, want of breath, giddiness, fainting, prostration, and stupor. Sometimes the intestinal symptoms are most prominent; at other times, the cerebral ones. The most extraordinary action of poisonous mushrooms is upon the heart. The active principle of the *Agaricus muscarius*, or *Amanita muscaria*, was separated by my friend Professor Schmiedeberg of Strasburg, and named by him muscarin. The merest trace of this alkaloid will arrest the pulsations of the frog's heart almost instantaneously, and prevent it from ever beating again unless its effect be counteracted. But if a minute quantity of atropia be brought into contact with the organ, it will begin to pulsate again, and will go on beating for a long time. I have stopped the motions of a frog's heart by dropping a little dilute muscarin upon it, and have again made it pulsate after it had remained perfectly motionless for no less than four hours. Muscarin does not stop the heart of mammals so readily as that of the frog, but it renders the pulse slower, and intermissions are sometimes noticed in cases of poisoning by mushrooms. A little atropia at once counteracts the effect of muscarin on the heart in mammals just as it does in the frog.

But, besides this remarkable effect of muscarin on the heart discovered by Professor Schmiedeberg, it possesses one no less extraordinary upon the pulmonary vessels. This I discovered some time ago, when experimenting with a specimen of muscarin given to me by my friend. He had noticed that intense dyspnœa was one of the most marked symptoms produced by the poison. He had not, however, attempted to explain it. He had observed that during the dyspnœa the arteries contained very little blood, and when cut across hardly bled at all. On considering the matter, it appeared to me that this emptiness of the arteries and the dyspnœa might be due to a common cause, viz., contraction of the pulmonary vessels. If these vessels contract spasmodically, the blood will be prevented from passing through them, and will accumulate in the right side of the heart. The right heart and veins will consequently become gorged with blood, while none will reach the left side, so that both it and the arteries will remain empty or nearly so (see fig. 1). As the blood cannot reach the lungs to become aërated, dyspnœa occurs; for this may be produced as well by preventing the blood from reaching the air as by compressing the windpipe, and thus preventing the air from reaching the blood. This supposition of mine appeared to explain the symptoms perfectly; but it was only a supposition, and required to be tested by experiment before it could be regarded as having any value. I accordingly tested it in the following way.

Having thoroughly narcotised a rabbit with hydrate of chloral, I commenced artificial respiration, and opened the thorax, so that I could see the lungs and the heart perfectly. It is well known that with due precautions animals can be kept in this condition, for an hour or two at least, without any change occurring in either heart or lungs. The animal is so deeply narcotised that it lies as if dead, but the heart goes on pulsating as regularly as if everything were in its normal condition. Both sides of the heart are equally filled, the vena cava is only moderately distended, and the lungs are rosy. While this state of things continued, I injected a little muscarin into the jugular vein. At once everything changed. The lungs became blanched, the left side of the heart became small, the right side swelled up, and the vena cava became greatly distended. (See fig. 1.) After a short time, I injected a little atropia into the jugular vein, and instantly everything returned to its normal condition. The left side of the heart regained its former size, the right side diminished, the distension of the veins disappeared, and the blanched lungs again assumed a rosy hue (see fig. 2). This was exactly what I expected, and consequently I was all the more distrustful of my own personal observations. A little prejudice might have led me to exaggerate the blanching of the lungs, although the condition of the heart and veins was so obvious as to preclude the possibility of error. I accordingly got two observers who knew nothing about the experiment and repeated it before them, noting down *their* observations. These agreed exactly with my own, and I thus became sure of my facts.

As dyspnœa is observed after poisoning by mushrooms, both in animals and men, we may, I think, safely extend the results we have obtained by experiments on the lower animals to men, and say that in them also the dyspnœa is due to spasmodic contraction of the pulmonary vessels. The dyspnœa, as well as the other symptoms of muscarin poisoning, disappear in animals almost immediately after the injection of atropia, and, indeed, Schmiedeberg and Koppe describe an experiment in which the use of this antidote during the death-struggle completely restored a dog which had been poisoned by muscarin. They, therefore, recommend that in cases of poisoning by mushrooms the stomach should be emptied, and then atropia injected subcutaneously. It is a curious circumstance that, in poisoning by mushrooms, tickling the fauces seems to prove much more efficacious in producing vomiting than the administration of tartar emetic. The antidote may be given by the mouth, either in the form of tincture of belladonna or liquor atropiæ; but Schmiedeberg and Koppe prefer subcutaneous injection, on account of the more rapid absorption and speedy action of the drug, as well as the more accurate adjustment of the dose. The dose for subcutaneous injection should be about one-hundredth of a grain or about one minim of the liquor atropiæ sulphatis (*B. P.*) repeated if necessary until the dyspnœa is relieved.

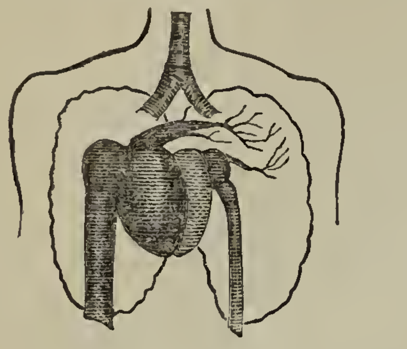

Fig. 1.

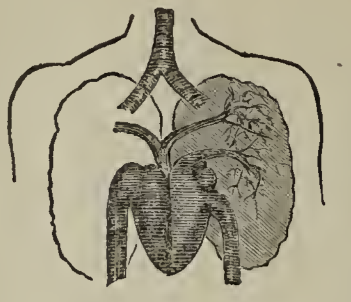

Fig. 2.

ON A RARE MODIFICATION OF ALBUMEN IN THE URINE.

By GEORGE JOHNSON, M.D., F.R.S.,
Professor of Medicine in King's College; Physician to King's College Hospital.

On October 31st, I saw for the first time, at the Charing Cross Hotel, a fine muscular gentleman about thirty-five years of age, who had some febrile symptoms with muscular pains, which I at first thought might be a slight return of a Roman malarious fever from which he had suffered two years ago. The temperature was 101.5; pulse 80. After two days, his throat became sore, and there was much congestion of the uvula, tonsils, and fauces. The congestion extended to the mucous membrane of the larynx, which was red and swollen; and his voice was husky. The throat presented appearances which I have sometimes seen as a result of exposure to sewer-gas, but there was no evidence that he had been thus exposed.

I gave him three-grain doses of quinine three times a day, and a chlorate of potash gargle. The symptoms rapidly passed away, and on November 5th he was so well that I took my leave of him.

At my first visit, I took away a sample of his urine, which I found to present remarkable reactions with heat and nitric acid. I then handed it over to my son, who has recently published an elaborate paper on Certain Compounds of Albumen with the Acids (*Journal of the Chemical Society*, August 1874). I subjoin his report on the specimen. I have only to add that, on the day after I obtained the first specimen, and each day afterwards, the urine of this patient was found not to contain the peculiar substance here described.

Report on a Specimen of Urine, by George Stillingfleet Johnson, Daniell Scholar of King's College, London.—The urine was high coloured, feebly acid, and became slightly turbid on boiling. This slight turbidity was at once cleared up by the addition of nitric acid (phosphates). A few drops of nitric acid produced in the cold urine a copious white precipitate, which was at once dissolved on heating or on the addition of more nitric acid. This precipitate did not reappear on cooling, nor on neutralising the acid with potash. A solution of corrosive sublimate gave a copious white flaky precipitate, not dissolved by heat, and resembling ordinary coagulated albumen. Solution of ferrocyanide of potassium gave no precipitate either in the cold or on heating; and, after the addition of this salt to the cold urine, nitric acid failed to produce any precipitate.

The urine was placed on a dialyser of parchment-paper, which was floated on some distilled water. After twenty-four hours, the liquid on the dialyser was found to be neutral; and its behaviour with reagents was much altered, though no odour of decomposition was perceptible. Nitric acid now produced a transparent gelatinous precipitate, dissolved by heat. The application of heat alone produced no alteration, nor did solutions of potassium-ferrocyanide, and ammonium-chloride. Solutions of corrosive sublimate, silver-nitrate, and plumbic acetate, produced gelatinous precipitates not dissolved by heat.

The precipitate produced by corrosive sublimate in the original urine, and the viscosity of the liquid, would lead one to suspect the presence of ordinary albumen; but the absence of coagulation by heat, and the resolution of the coagulum produced by nitric acid on adding excess of the acid or on heating, together with the very curious change produced by dialysis, would seem to indicate a perfectly distinct modification of albumen.

Dr. Beale has published a case (*Kidney-Diseases, Urinary Deposits, and Calculous Disorders*, p. 227), reported by Dr. Leared, in which the urine gave exactly the same reactions with heat and acid as the sample above described.

THERAPEUTIC MEMORANDA.

TWO CASES OF ALOPECIA SUCCESSFULLY TREATED BY LOCAL STIMULANTS.

Case I was that of a married man, aged 54, with a large family of perfectly healthy children. He had always enjoyed good health until about a year previously, when he exerienced a sudden and severe nervous shock. Shortly afterwards, he first noticed symptoms of baldness, his hair becoming thinner and falling off, particularly over the head; so much so, that in a few weeks his scalp presented a perfectly white and shiny appearance, with no vestige of hair left, rendering the use of a wig necessary. The disease continued gradually to spread, until the whole of his body was more or less implicated. When he applied to me, he stated that he had been under treatment for some months, but with no benefit; and, to use his own words, "had been discharged as incurable". On making a careful examinaton of his body, I found a condition of almost general alopecia to exist, the skin having an uniform white, smooth, and shiny appearance. I put him under a strictly nutritious and digestible dietary, and prescribed tonics to improve his general health. Locally to the scalp I painted on some blistering fluid, repeating the application once a fortnight, and ordered the following lotion; carbonate of ammonia one drachm, tincture of capsicum one drachm, rectified spirit one ounce, glycerine one ounce, and rose-water to eight ounces, to be applied freely over the body night and morning. For two months I could distinguish no appreciable improvement in his condition; but, after that period, new hair, very silky and quite white, began slowly to grow, and became thicker and stronger until the body and head assumed all the appearance of health, being well covered with hair over the different regions, although the colour of that hair, originally dark brown, was now permanently quite white. In this condition he was discharged as cured after seven months' treatment. About three months afterwards I met him, and he stated that he had experienced no return of the disease in any way. I may here observe that, in this man's case, there was no history of acquired or congenital syphilis, or, in fact, any apparent cause for the disease beyond the shock he mentioned.

Case II was that of a married woman, aged 32, with five children, who applied to me with alopecia circumscripta of two years' standing. Her husband and children appeared quite healthy, and she stated that she had never known a day's illness, and that the disease seemed in no way to affect her general health. I could obtain no information as to the origin of the disease, and there was no evidence of any constitutional disturbance that could have caused it. The scalp, upon examination, presented a series of white, smooth, ivory-like patches, bounded irregularly by healthy hair. This case was treated upon the same principle as the former, the blistering fluid being applied at intervals of three weeks, although not with the same speedy effect, as, from the soreness of the scalp, the treatment had to be stayed from time to time. The disease also appeared to be more intractable, it being upwards of seventeen months before she was discharged thoroughly recovered.

As to the causes of alopecia, Nayler, in his work upon *Diseases of the Skin*, assumes them to be numerous; particularly in women, viz.: parturition, and some fevers, especially typhoid and scarlet. Also, after any severe affliction it may occur, or after acute rheumatism; but this last cause is more frequent in men. Moreover, it may, in both sexes, frequently appear as a result of syphilis, either constitutional or acquired. In his remarks upon treatment, Nayler highly recommends the use of stimulating lotions and blisters, and my own experience of this treatment has proved most successful.

E. C. Robson Roose, Surgeon to the Brighton and Hove Provident Dispensary.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

LONDON HOSPITAL.

SUPPURATING HYDATID OF THE LIVER: TAPPING: DISCHARGE OF BILE: CURE.

(Under the care of Dr. Ramskill.)

A man (P. M., aged 35), admitted into the hospital on August 29th, 1873, said he had always lived at Wapping, and, during the last five years, had been subject to what he called "ague". He had usually had two attacks every year, each one continuing about a fortnight. It was "not a shaking ague"; he did not shiver, but he felt sick and giddy, and an attack always commenced with cold sweating on alternate mornings between eleven and twelve o'clock. He had never been jaundiced before this attack, which had begun about a month before he came to the hospital, and had lasted a week before he noticed that his skin was yellow. About the same time that he had noticed this change in colour, he had found a lump growing in his right side, which, however, had not given him any pain.

Soon after admission, he vomited some yellowish fluid. His skin was of a canary colour, not greenish, as in long-continued jaundice. There was a tumour coming down from under the right ribs, and extending below the umbilicus, and a little to the left of the median line. It did not fill the renal region, as if it came from the kidney, but protruded forwards about an inch and a half beyond the level of the sternum, having a clear space between it and the kidney. During respiration, it protruded, but did not descend. The extent of dulness of this tumour was about eight inches from side to side. In front, the liver-dulness reached the sixth rib, and above that there was clear resonance. Behind, the dulness scarcely reached the angle of the scapula. The area of splenic dulness was not enlarged. The mass was soft, very elastic, and indistinctly fluctuating. These physical signs led to the diagnosis of abscess or of hydatid cyst. The patient was very prostrate; his voice was reduced to a whisper; he seemed to be unable to move, and never changed, or attempted to change, his position in bed; he appeared to be suffering great pain, and his expression was that of extreme anxiety. On the third day after admission, his temperature was 103; pulse, 120; and respirations, 36.

It was then decided that the tumour should be punctured, that its contents might be tested, and accordingly the pneumatic aspirator was used. Owing, however, to the cannula becoming almost immediately plugged, only a few drops of thick offensive greenish fluid were evacuated; this, upon microscopic examination, showed a quantity of broken-up membrane, but no hooklets; still it proved sufficient to verify the diagnosis that the patient was the subject of a hydatid cyst or cysts. A free opening was, therefore, made with a scalpel through the abdominal wall about two inches above and one inch to the right of the umbilicus. There was, however, little or no flow, and the depth of the wound was cautiously increased, until the whole of the blade of the scalpel had disappeared in the wound, when a free flow of purulent matter took place to the extent of fully sixty ounces. A drainage-tube was left in the wound, from which a discharge, which often appeared to be bile only, continued for some time.

The patient expressed his sense of great relief soon after the operation; the anxious expression disappeared; he had some comfortable sleep the following night; and, to some extent, he had a little returning appetite the next day.

About a fortnight afterwards, the wound threatened to heal; a tent was, therefore, put in, and at this time, on examining it, a probe passed in to the depth of fully six inches. The discharge then continued, to the extent of about two ounces daily of creamy looking pus mixed with blood; and, at the end of five weeks, he said he felt better than he had for many months. He could move easily in bed; his appetite was good, and he slept well. His temperature was 99.

On October 8th, however, after having a hearty breakfast, he complained that his legs felt cold, then that this feeling extended upwards until he felt cold all over. He shivered, but his teeth did not chatter. In a short time, the shivering ceased, and then he sweated slightly. During this attack, his temperature rose to 103, pulse 98, and respirations 24. He quickly recovered, a little headache only remaining, and he was able at noon to enjoy his dinner as usual. But from this time his temperature was not uniform, as it had been previously, and the discharge, which continued from the wound, had changed to a brownish green colour and looked like bile.

On October 14th, a probe sank into the wound, by its own weight only, to the depth of four inches and a half, in a direction backwards, and slightly upwards and outwards.

On October 18th, the temperature again rose to 102.4, pulse 96, and respirations 26; but it was supposed that this change was due to his having been lying upon his face, hoping to aid the discharge. He said he felt "as if he was stretched". The flow from the opening still continued, though irregularly.

On November 5th, he looked quite comfortable; his colour was natural; he had gained considerably in weight; the discharge had ceased, and the wound apparently closed, and the patient expressed himself as being "very well". Temperature normal.

ARTHRITIC DISEASE: TAPPING THE KNEE-JOINTS: RECOVERY.

(Under the care of Dr. Ramskill.)

The patient (W. L., aged 40), who had been a soldier, stated that he had had rheumatic fever in the Crimea, when he was 17 years of age, commencing in his shoulders and affecting successively the elbows, wrists, and other joints. It had left him almost as abruptly as it had begun, after keeping him in bed six or seven weeks. About three months before that attack, he had had ague, apparently tertian.

At the time of his second attack of rheumatism, he was 26 years of age, and stationed in India. This attack also had begun in his arms, and had shifted about, not stopping long in any one place. He was confined to bed for a month, and to the house for some two or three months afterwards.

During the last three or four years, he had been earning his living by diving, in which occupation he had to be in the water five or six times a day, for about an hour each time. The present attack began many months ago with pain in front of the right knee, just below the knee-cap, and in about three months it attacked the left knee similarly. Then the pain became worse, and extended down the shin; it felt "just as if any one had been kicking him", and it became so severe, that he had to lie in bed. He did not think his knees were swollen at first; he had noticed no swelling, and the symptoms left him in about a month. He then went to work again, and worked four days, when he took cold; that is, he had a cough, sore-throat, running at the nose and eyes, and pain at the back of his head. On the following morning, he found that his eyes were puffed, and he was laid up for three weeks with erysipelas. Then he had what his doctor called pleurisy, and, as soon as he was better of this and began to walk about, the soreness came in front of both knees and extended down the shin-bones, and the knees began to swell. About a month afterwards, the right leg began to be drawn up, so that he could only touch the ground with his toes. The left leg was never drawn up. He said he had always been a strong man, and not easily fatigued. He had never been a great drinker, not exceeding two or three pints of beer a day, with about two glasses of spirits. There was some history of soft chancre about twenty years ago, but of no other venereal disease. After admission into the hospital, he occasionally had pains flying about his shoulders. The knee-joints were found to be very greatly distended, and bulging outwards by the sides of the patellæ; the latter bones were pushed forwards, and, when pressed upon, felt as if they were floating. Moreover, the synovial sacs were greatly distended upwards, so that there was considerable fluctuation an inch or two above the patellæ; and, further, the subcutaneous tissues over these joints felt more resistant than natural, seemingly thickened. The patient's statement tended to show that his knees had been in this condition for several weeks or months, but they had become much more painful. From the history given, it was thought that the morbid change in the knee-joints was rheumatoid, and its long duration tended to show that there was little power of absorption; and, as it was found that he had increased pain, it was thought advisable to remove the fluid, lest its long-continued pressure might render the joints useless. Both joints were, therefore, tapped with the pneumatic aspirator, and about ten ounces of yellow serous fluid were drawn from the right knee and about half that quantity from the left. The operation gave great and immediate relief to the patient. A fortnight afterwards, the right knee, having again become considerably distended, was tapped a second time, and, a few weeks later, the operation had to be repeated also upon the left knee. After each operation, the knees were firmly strapped; and, soon after the last one, the patient was able to walk about, and was sent to the seaside.

SELECTIONS FROM JOURNALS.

SURGERY.

Dressing of Wounds.—At a meeting of the Paris Société de Pharmacie, on August 5th, M. P. Vigier furnished a note upon the "épithème argilleux" which has been proposed by him for the dressing of wounds. The substance which he employs, a specimen of which was exhibited, is a mixture of fine moist clay (100 grammes) and glycerine (50 grammes), and its advantages are said to be that it adheres to the skin, does not putrefy, and is easily removed by water.

Connection of Purulent Inflammation of the Middle Ear with Facial Paralysis.—Dr. Green, in the *Boston Medical and Surgical Journal*, says that the close relation of the horizontal portion of the Fallopian canal, through which the facial nerve passes, with the tympanum is an anatomical fact; paralysis of that nerve, however, in connection with otorrhœa of the same side, can no longer be considered, as formerly, a diagnostic symptom of caries of the petrous bone, since experience has shown that not only may there be extensive caries, but even the sheath of the nerve may be surrounded with pus without the existence of any paralysis. The anomaly of an opening of the Fallopian canal into the tympanum is also well recognised, and has been considered to explain the paralysis of the facial nerve occurring in young children suffering from a simple catarrh of the middle ear. Gruber, however, considers that, even without this anomalous opening into the tympanum, paralysis of the facial nerve may result from a simple congestion of the middle ear in children, in whom all these parts are rich in blood-vessels. He is led to this conclusion from observing the rapidity with which such paralyses disappear as soon as the fever is over, a few hours often sufficing to restore the full function of the nerve, a time too short to allow the absorption of an exudation. He mentions cases of nursing infants, with a febrile affection of the throat associated with inflammation of the middle car, in whom facial paralysis appeared, and then disappeared immediately after a rupture of the membrana tympani and the discharge of pus; and, in support of his view, that congestion alone may cause facial paralysis, he quotes one case in which the inflammation in the middle ear subsided with the fever without the formation of pus, and in which facial paralysis lasted for twenty-four hours. Many of the cases of so-called rheumatic paralysis which disappear in a very short time, under the simplest treatment, may belong to these cases of congestion. The close connection of some facial paralyses with disease of the tympanum is seen in those cases in which an exudation exists in the tympanum, and in which the disappearance of this exudation is followed directly by a relief of the paralysis. In such cases, it is probable that there is an opening into the Fallopian canal. Gruber gives the history of such an one as follows. A tailor, 61 years old, after suffering for a few days with a cold in the head, began to have severe pain in the right ear, followed by deafness, fever, and, in a short time, by facial paralysis of the same side; examination, after ten days, showed the right tympanum filled with exudation, and a paracentesis evacuated considerable pus. Two days later, the paralysis was beginning to improve, and in five days more it had entirely disappeared, the tympanum having been kept free from secretion in the meantime by syringing and inflation. The inflammation in the tympanum lasted for nearly two months, and, during that time, whenever the secretion was allowed to collect in the cavity, the paralysis of the face returned in a degree, but was relieved as soon as the tympanum was cleared. This result was observed several times during the course of the disease.—*Irish Hospital Gazette.*

Treatment of Fractures by Flexible Splints.—Dr. Arthur Vidal gives great commendation to the use of these appliances, and cites seventeen cases of fracture in which the result has been most satisfactory. These flexible splints consist of slices of wood about forty-five *millimètres* wide, and about two or three *millimètres* thick in the middle; their length varies according to the fracture. These very simple splints model themselves perfectly to the limb. The fracture having been surrounded with linen and wadding, a series of these splints are placed in a horizontal direction round it, care being taken to imbricate them one over the other, so that they completely surround it. The whole is kept in place by bands. M. Vidal finds that this apparatus possesses the merits of being simple, cheap, and easy to be procured. It is light and convenient for the sufferers, to whom it not only permits a considerable amount of movement, but whom it also protects from possible accidents. It is strong, not easily displaced, does not require frequent adaptation, and reduces the fracture as completely as possible. It allows the quick and easy examination of the seat of the fracture, or of any other point, without the necessity of disturbing the splint in its entirety; thus assuring a constant reduction, and avoiding the chance, during inspection, of accidents which might be caused, in the early days of the fracture, by some hasty movement of the patient or the dresser. (*Thèses de Paris*, 1874.)

OBSTETRICS.

Bromide of Ammonium in Catamenial Excesses.—Dr. J. K. Black of Newark, Ohio, has often tested the efficiency of this preparation in non-structural excesses, and he speaks (*Cincinnati Lancet and Observer*, May, 1874) with confidence of its valuable powers. He says he no more certainly anticipates the arrest of an attack of ague by the administration of quinia than does he anticipate the control of the forms of catamenial excess referred to by the proper administration of the bromide of ammonium. In the administration of the remedy, an essential rule is, that its use shall precede the expected period by at least ten days. Its administration only during the crisis will do very little, if any, good. The sedative influence of the remedy must precede and accompany the stage of ovarian and uterine vascular engorgement, which itself precedes the flow by several days. Any associated disorder, which has even a remote bearing upon the menstrual excess, should, of course, receive appropriate attention.—*American Journal of Medical Sciences*, July, 1874.

Intractable Vomitings during Pregnancy.—M. Féréol reports, in the *Annales de Gynécologie*, the case of a woman aged 33, who became pregnant in the beginning of September 1871, and was attacked by sickness and diarrhœa from the commencement of her pregnancy. She entered a hospital in December, and went through the treatment commonly employed for this affection—the administration of nux vomica, belladonna, and cauterisation of the neck of the uterus, etc. She had fallen into the last stage of weakness, when she expelled a fœtus about six months old. The vomitings were stopped for some days, but soon reappeared; and the woman died six days after the operation. At the necropsy, it was discovered that the small curvature of the stomach, from the cardia to the pylorus, was filled with a tumour, spreading over the surfaces of the organ, especially over the posterior surface, and measuring two *centimètres* at its greatest thickness. The presence of this tumour sufficiently explained the want of success of all the medicinal agents employed, as well as the uselessness of the induced abortion. It must be acknowledged that, amongst the numerous plans of treatment extolled as remedies against the obstinate sickness of pregnancy, not one inspires absolute confidence. The two following remedies are put forward as specific against this distressing complication, which, however, are given here with all reserve. Dr. Blackwell reports, in the *Philadelphia Reporter* for October 1873, that two drops of tincture of nux vomica, given hourly, have been successful in a case where all the usual means had been tried without success. Dr. Woillez, in the *Journal de Thérapeutique* for January 1874, recommends that the pharynx of pregnant females should be painted with a solution containing a third part of bromide of potassium, as a remedy for the sickness which depends on reflex action.

COLUMN FOR THE CURIOUS.

The Hospitals of Paris in 1790.—The *Monitor* of October 10th, 1790, publishes an analysis of a report on the hospitals of Paris. It reveals a terrible state of things, showing that, of the 1,900 beds of the Hôtel Dieu, many contained five, six, and even eight occupants at a time. Favourites alone had the privilege of having a bed to themselves, and each person was only estimated to require a very limited amount of fresh air to breathe. In the majority of the hospitals of Paris, the mortality amounted to a tenth of the patients received, and in some cases to the twentieth, but at the Hôtel Dieu to one-fourth or one-fourth and a half. Out of the lying-in women, 55 per cent. died; and in the Hôtel Dieu, one out of thirteen.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 14TH, 1874.

TYPHOID FEVER.

THERE is, we apprehend, some confusion in the public mind as to the meaning and objects of Professor Tyndall's recent publication on typhoid fever. No doubt has, for many years, existed as to the communicability of typhoid fever by excremental pollution. The vehicle of contagion, and the means of sanitary prevention have long since been established by Jenner, Murchison, Budd, Farr, and Simon, not to speak of other workers, whose name is legion.

Dr. Tyndall, however, who, as President of the British Association, must be acknowledged as a leader in natural science, yet professedly as an outsider, and with no knowledge of medical science, undertakes to settle on behalf of the public, once and for ever, the important question whether typhoid fever can ever have a spontaneous origin from fæcal fermentation, or whether the disease must, of necessity, always spring from a specific germ derived from a pre-existing case of fever. It is not a little remarkable that a philosopher who maintains that even the human race has, by a process of evolution, in the course of countless ages, sprung from something lower in the scale of organisation even than organisms, which he compares to "drops of oil suspended in a mixture of alcohol and water", and who seems to agree with Lucretius in affirming that "nature is seen to do all things spontaneously of herself, without the meddling of the gods", should yet maintain that the poison of typhoid fever can never arise except from a previous case of typhoid fever, and must therefore have existed from all eternity, before even man himself existed. Dr. Tyndall submits that the question at issue involves no knowledge of medical practice, but simply a capacity to weigh evidence. It seems scarcely credible, however, that Professor Tyndall can have carefully weighed the evidence on both sides, when he comes forward and asserts positively in the public press, that typhoid fever is a most contagious disease, like small-pox, and can arise in no other way than by contagion. It may be hereafter shown that such is the case; but the statement is far from having been proved, and there are certainly strong facts on the other side, which demand that judgment in the matter shall be deferred, and which have an important bearing upon medical practice. If the excretions of typhoid fever be so eminently contagious as Dr. Tyndall asserts, it is difficult to account for the remarkable exemption from the disease of the attendants on the sick referred to by all medical writers.

Secondly, there is the experience of the London Fever Hospital, referred to by Dr. Murchison in the second edition of his work on the *Continued Fevers of Great Britain.* "During nine years, 3,555 cases of enteric fever were treated in the same wards with 5,144 patients not suffering from any specific fever. Not one of the latter contracted enteric fever, although it was not an uncommon practice for them to sit over the evacuations of enteric patients, and the use of disinfectants was quite exceptional." Private practice, again, yields like results. Dr. Murchison states that, at the date of the publication of his work, it had been his lot to be consulted in upwards of fifty instances in which persons had contracted typhoid fever away from home and had been brought home ill with it. In only two of the instances did fresh cases of fever appear in the houses into which it had been imported, and in neither was there crucial proof that the disease was communicated by the imported case. His experience on this point has been confirmed by that of other observers; and we believe that most physicians having a large consulting practice in fever, when asked as to the propriety of sending away the inmates of an infected house who are not themselves suffering from the fever are chiefly influenced in their reply, by the circumstance of the disease having been imported or indigenous, separation being considered advisable in the latter case, but not in the former. Two years ago, typhoid fever appeared in a nunnery in the suburbs of London. Sixteen of the patients were removed during their illness to their own homes, but in not one of the sixteen houses did the fever spread.

Lastly, if a drain give typhoid fever merely, as Professor Tyndall contends, because it is "a direct continuation of a diseased intestine", it is remarkable that some of the most notable outbreaks of typhoid fever in connection with bad drainage have arisen from the drain being blocked up, and from the communication with diseased intestines being in this way cut off. Many other arguments might be adduced; but enough has been said, we think, to show that Professor Tyndall has only studied one side of the question, or, at all events, has presented to the public assertions which are calculated to create unnecessary alarm as to the contagious character of typhoid fever.

And this leads us to a most important practical question; viz., the mode of prevention of typhoid fever. It is to be observed that, when typhoid fever is stamped out by flooding of drains and the employment of disinfectants, there is no proof that the disease is due to germs derived from a diseased intestine. The success of the measures referred to is as much in favour of the so-called pythogenic theory as of that which is opposed to it. In prophylaxis, in fact, we would go farther than even Dr. Budd and Professor Tyndall. We would not be satisfied with destroying the excreta of the sick, but we would insist on the necessity of preventing the pollution of our drinking-water or of the atmosphere of our dwellings with sewage of all sorts.

Lastly, we are not a little surprised that a man of Dr. Tyndall's scientific position, an adept in weighing evidence, should exhibit such a want of philosophic caution as to crown his argument by the astounding announcement that "Dr. Klein has recently discovered the very organism which lies at the root of all the mischief, and to the destruction of which medical and sanitary skill will henceforth be directed." Dr. Klein's researches are still in embryo, and he himself would be the last, we believe, to make any such statement.

TEETHING POWDERS.

WE are afraid "teething powders" have much to answer for in the matter of children's deaths. Those engaged in toxicological inquiries know how carelessly they are administered without medical advice, and, what is more, know too often the fatal results of their administration. A child cries, and the mother's rest is disturbed, or her household duties are interfered with, and a "teething powder" is the one remedy that suggests itself; and frequently a sad remedy it proves. A packet of "teething powders" in a nursery-cupboard is a dangerous weapon to be entrusted in the hands of a nurse.

The deaths of four children at Romford, of ages varying from ten months to two years, call for these remarks. The mothers of all four children sent to a chemist living in the town, at different times, for a "teething powder". Each mother gives the same reason: "The child began to suffer from its teeth"; and in each case the child to which it was given died. The symptoms, as described in the daily papers, are similar in each case. In the first (Keeble), death took place in about twenty-three hours. Stupor supervened in half an hour after the administration of the powder, and the child remained unconscious to the last. In the second case (Capsey), "stupor" was the prominent symptom. In the third case (Brazier), the child is described as "seeming to go off in a drowsy state" soon after taking the powder. In the fourth (Adams), the child "soon became insensible, and remained insensible to its death".

That in each case opium, in some form or another, was the cause of death, there is no room for doubt. The chemist's assistant gave evidence (although he admitted a doubt as to when the powders were made up, or who made them up) to the effect that each powder contained about half a grain of Dover's powder (one-twentieth of a grain of powdered opium). That in a single case, owing to some peculiar idiosyncrasy of a child, this quantity might prove fatal, we admit; but that a dose of one-twentieth of a grain should prove fatal in four consecutive cases, we venture seriously to doubt. We confess, further, that to our minds the chemical analysis is most unsatisfactory. "Some organic compound" is found to be present in the powder; but the analyst would not swear positively that "morphia or any constituent of opium was present". We read these words with amazement. Nor does the fact that the quantity the analyst had for examination was very small, in the least degree assist us. Remembering that an amount of morphia less than the 1-5000th of a grain can be detected by proper tests, and that considerably less than the 1-10,000th of a grain of meconic acid exhibits well-marked reactions; remembering, moreover, the very rapid and intense action of the powders on the children—it must indeed have been a strangely microscopic portion submitted to the analyst, if he was unable to swear positively that morphia was present, although "the reactions led him to infer the presence of opium". What this means, we are totally at a loss to conceive.

We confess to a feeling of pain at this miserable story of toxicological work. Whether the stomachs were examined or not, all reports we have seen are silent. Surely, if one or other were examined, the whole question would have been settled; but of this we hear nothing.

The case is very unsatisfactory from beginning to end; it shows chemical analysis to bad advantage. If opium were there, it ought to have been found. If it were not there, positive evidence to that effect ought to have been given. Whether it were there, or whether it were not (supposing the powder given to the analyst had been so microscopic in quantity as is suggested, although not so microscopic as to prevent the discovery of calomel and "an organic compound"), the case could have been cleared up by the chemical examination of the stomachs of the children; and this seems to have been omitted.

The indiscriminate sale of "teething powders" is serious. The profession should earnestly caution their patients against their use. This will be a certain check. That all "teething powders" contain opium, is well known; and opium is not a thing to be played with, and especially with children. That in this case, as in many others that have come under our observation, "teething powders" were the cause of death, we do not harbour a shadow of a doubt.

THE ALCOHOL QUESTION.

THE influence of the opinion of medical men on the use of alcohol as a beverage is unquestionably great. From their opinions and from their practice, the public largely draw inferences in respect to the propriety and utility of the habitual use of alcohol as a beverage. Their points of contact with the use of alcohol are numerous. Only medical physiologists are able to decide what are its effects on the healthy man: only medical physiologists and medical practitioners can pronounce an opinion upon its desirability as a daily beverage, its advantages as an occasional stimulant. The extent to which they prescribe it as a medicine in disease, and favour its introduction in the regimen and diet of health, influences thoughtful people directly and consciously, and thoughtless people indirectly and unconsciously, in their views concerning alcoholic drinks. Their influence is not paramount; for the attractions of alcohol are such that, even if medical men were unanimous in condemning its use, it is quite certain that they would never succeed in banishing it from the popular dietary. But it is equally certain that they, more than any other class of persons, have the power of regulating the use and abuse of alcohol among the more educated sections of the community. Of the fearful results of the abuse of alcohol, they see more than any other men, and are better able to understand what they see.

Mindful of this responsibility, we urged, a few years since, the preparation of a form of "declaration concerning alcohol" which should indicate the real position of the most eminent men in the profession in the matter, and should attack certain undoubtedly prevalent fallacies which possessed, and still possess, the public mind, to the effect that alcohol is a true dietetic and medicinal tonic, and that it is "nourishing", "strengthening", and the like. The interpretation which had been popularly put upon the doctrine and practice of the "alcoholic school of therapeutics" had induced a general belief that the new school of physiology and medicine had discovered generous qualities and tonic powers in alcohol, which had justified a general increase in the use of "nips", "pick-me-ups", and the addition of doses of alcohol to the lunch and dinner of children, girls, and adults who fancied themselves suffering from debility of any kind. The "declaration concerning alcohol", which was issued at our suggestion, produced a salutary reaction, of which we trust that the influence will not soon die out. But there is too much reason to believe that "drawing-room tippling" is not yet extinguished; that the most energetic protests by medical men against the habitual and unnecessary use of alcohol are still urgently called for.

We publish to-day a series of papers dealing with alcoholism from various points of view, which show that earnest members of the profession are busily at work devising methods and influences for checking the excessive consumption of alcohol, and affording relief to some of its worst effects. Dr. Sutherland enters into the habits of modern society, and suggests rules for the limits within which the use of alcohol may be advantageously restrained. Dr. Russell deals with the important legal question, How are we to restrain dipsomaniacs? In Mr. Lucas we have a thorough-going opponent of alcohol. The difference of view which marks these papers is, at first sight, not hopeful of any satisfactory unanimity of conclusion. On looking into the text, however, it will be seen that all are agreed on one or two points. The conclusions on which they are agreed are those which we have always desired to emphasise. The use of alcohol, in health or in disease, needs to be restrained within strict limits. The whole influence of the profession may well be used to urge and impose that restraint. The work initiated by the late Mr. Donald Dalrymple, in attempting a legislative provision for the restraint of dipsomaniacs, ought not to be allowed to fall to the ground. We see with pleasure that the members of the Birmingham Branch are preparing to renew the parliamentary contest which Mr. Dalrymple only ceased to wage when a premature death removed him from among us.

THE QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

DURING the three months ending 30th June, 1874, the registered number of *persons married* in the United Kingdom was 129,708, giving an annual marriage-rate of 16.1 per 1,000 persons living. In England, the rate was 17.9 per 1,000, and slightly exceeded the average. It was lowest in the extra-metropolitan portion of Middlesex, in Essex, and Herts; and was highest in Nottinghamshire, Lincolnshire, and Northumberland.

During the quarter that ended on September 30th, the *births* of 274,414 children were registered in the United Kingdom; the rate being 33.6 per 1,000. In England, the birth-rate for the quarter was 35.2 per 1,000, a higher rate than has prevailed in any previous corresponding quarter. There was a decline in thirteen agricultural counties, but an exceptionally large increase occurred in Monmouthshire, Nottinghamshire, and Durham. The birth-rate was so low as 23.0 and 24.1 in Cheltenham and Bath, and as high as 47.6 and 50.8 in Gateshead and Wigan.

During the quarter that ended on September 30th, the *deaths* of 161,847 persons of both sexes were registered in the United Kingdom, and the death-rate was 19.8 per 1,000. In England, 124,099 deaths were recorded, implying an annual death-rate of 20.8 per 1,000, which was 0.4 below the average in that quarter, though higher than the death-rate in the summer quarter of either 1872 or 1873. The rate last quarter was less than 16 per 1,000 in Dorsetshire, Berkshire, and Suffolk, whereas it was 25.4 in Northumberland, 26.7 in Durham, and 27.7 in Lancashire. The high death-rate in Lancashire shows a large excess upon that which prevailed in any other English county, and the deaths showed an increase of 14.4 per cent. above the numbers registered in the same county in the three previous corresponding quarters. About thirteen and a half millions of persons are collected in the chief towns of England and Wales, the annual death-rate amongst whom last quarter averaged 23.5 per 1,000; while in the rural population of about ten millions the death-rate did not exceed 17.2. In both cases the rate was rather below the average. The general urban rate during the last quarter exceeded the rural rate by 6.3 per 1,000, which signifies that 21,309 persons died in the town districts who would have survived had the death-rate not exceeded that which prevailed in the rural districts.

In the eighteen largest English towns, the rate ranged from 18.3 and 20.2 in Portsmouth and Bristol to 31.7 and 34.5 in Newcastle-upon-Tyne and Liverpool—that is, the deaths that occurred in Liverpool were at nearly double the rate to the total population that prevailed in Portsmouth. The annual death-rate from the principal zymotic diseases was 4.7 per 1,000 in Portsmouth, whereas it was 13.9 in Liverpool; and infant mortality was 168 per 1,000 born in Portsmouth, and so high as 305 in Liverpool. The death-rate was low in Cheltenham, Dover, Reading, and Colchester; high at Ashton-under-Lyne, where it was 33.0, Preston 33.4, Wigan 34.3, and Carlisle 35.7. At Carlisle, there was a great fatality of scarlet fever and typhus. The infant mortality in rural districts was much below that in towns; and was again highest in Leicester. The deaths registered from the seven principal zymotic diseases were 27,969, equal to an annual rate of 4.7 per 1,000. The rate was generally far higher in the urban than the rural portions of the population; and was highest, 5.9, in Cumberland, 6.4 in the West Riding of Yorkshire, 6.9 in Durham, and 8.3 in Lancashire. In the towns, the zymotic death-rate was highest, 10.9 in Salford, 11.2 in Birmingham, 11.4 in Wigan, 12.2 both in Preston and Coventry, 13.9 in Liverpool, and 19.2 in Carlisle. The death-rate from diarrhœa was high in July, but during the whole quarter was below the average, although 13,317 deaths were referred to that cause, being at the rate of 2.2 per 1,000. There was a marked further increase in the fatality of scarlet fever, which caused 6,081 deaths during the quarter, a higher number than has been referred to this disease in any quarter since the first of 1871. The last epidemic reached its climax in the last quarter of 1870, and then slowly declined to the June quarter of 1873, since when they have increased again. An exceptional fatality from this disease prevailed last quarter in Cumberland, Warwickshire, and Lancashire. In the first fortnight of October, the epidemic seemed to be still increasing in intensity. Amongst the eighteen large towns, only two, Portsmouth and Bristol, had a lower death-rate than London. Scarlet fever was prevalent in London, especially in the central and east group of districts; and during the quarter 846 deaths were referred to that disease in the metropolis.

The natural increase of population in the United Kingdom produced by the excess of births over deaths during the quarter was 112,567; and in England that increase was 85,799. The population is increasing most rapidly in the mining districts of Durham, Staffordshire, and many parts of Yorkshire, Lancashire, and South Wales. The emigrants of British origin who left these shores were 58,957. "At Greenwich, the temperature of the months of July and September was above, of August below, the average. The rainfall of the nine months of the year was much below the average, but the yield of the harvest was good. The prices of wheat and potatoes, which had been high, declined; the prices of beef and mutton again rose."

A NEW lunatic asylum was opened in Bahia, with much ceremony, on June 24th.

A CASE of hydrophobia is said to have occurred this week at Manchester. The patient having been bitten by a stray dog, and death having resulted from the bite, a verdict in accordance was given.

THE Council of the Hospital Saturday Fund, in a long report just issued, estimate their probable total receipts at £7000, from which £1500 must be taken for management expenses.

PROFESSOR HUMPHRY has been re-elected to represent the University of Cambridge in the General Council of Medical Education and Registration for the term of five years.

THE Marquis of Bath presided at a public meeting at the Auction Mart, Frome, on Monday, at which it was resolved to establish a cottage infirmary for that town and neighbourhood with, if possible, ten beds. A committee was appointed, and a subscription-list opened.

THE following members of the medical profession have been elected mayors for the ensuing year: Mr. Joseph Harper, at Barnstaple; Dr. Barrington Chevallier (re-elected), at Ipswich; Mr. Benjamin Barrow, at Ryde, Isle of Wight; Mr. Potts, at Sunderland; and Dr. Roden (re-elected), at Kidderminster.

EPIDEMIC OF TYPHOID AT PATELEY BRIDGE.

A STRIKING illustration of the supineness of local sanitary authorities in protecting the interests entrusted to their care, is afforded by the report of Mr. E. Warburton, the medical officer, which has just come to our hand. Typhoid epidemic there, from what we read, is likely to continue. Mr. Warburton says:

> "In my annual report, presented in January last to the Sanitary Authority, I drew attention to the causes *then existing* which were, in my opinion, calculated to favour the development of such an epidemic as the present, in the following terms. 'That this place has suffered from no severe epidemic for some years past, must be attributed rather to the merciful providence of God than to cleanliness and good sanitary arrangements'. And in proof of this, I showed that the 'watercourses down each side of the main street are nothing better than common sewers, open to the air throughout their whole length; and as they skirt privies, pigsties, and manure heaps, and receive the contents of water-closets and filth from all sides, they throw out a most offensive odour, which pollutes the whole atmosphere in their vicinity. The main sewer down the middle of the street is a common box drain, in some places not more than twelve inches square, and so very near the surface of the ground that none of the houses can be drained without tearing up the street for twenty or thirty yards below'. I then showed that the 'water-supply, though abundant in quantity, *is wasted*, and is at such a distance from the houses that the inhabitants are often tempted to use the polluted water running near their doors, rather than be at the trouble of fetching it from *its pure source*'."

The report was made in January last, and up to the present time nothing has been done. Can we wonder, therefore, that zymotic and other diseases abound?

EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner of the Edinburgh University Club was held at St. James's Hall on November 11th, under the Presidency of Dr. Dyce Duckworth, Honorary Secretary, sixteen members and twelve guests being present. The Chairman, in proposing the toast of the evening, referred with satisfaction to the continued prosperity of the Club, and mentioned one or two changes which had recently taken place, alluding more especially to the appointment of Professor Rutherford, and the resignation by Mr. Davy, of the post of Joint Honorary Secretary, which he had long and ably held. Dr. Symes Thompson and Mr. Menzies, Deputy-Ranger of Windsor Park, replied for the visitors, and several excellent songs contributed much to the success of the evening.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THE Committee of the above association have memorialised the mayor and corporation, urging upon them the necessity of providing adequate hospital accommodation for the isolation of persons attacked by contagious affections, and to provide the most effective methods for preventing the spread of infectious diseases. They submit that the corporation has full powers conferred upon it by the 29th and 30th Victoria, cap. 90, sec. 37, to build or contract for, as well as to maintain, such places; and they are further of opinion that it is at least as obligatory upon the corporation, as the sanitary authority of the city, to protect the inhabitants to the fullest possible extent against epidemics of fever and other infectious and desolating diseases, as it is to provide them with public parks, gymnasia, and free libraries, for purposes of recreation and instruction.

NEW HOSPITAL AT GRANTHAM.

THE foundation-stone of a new hospital was laid last week by the Countess Brownlow. The want of more accommodation of this description has long been felt. The building is estimated to cost from £4,000 to £5,000, and contain provision for twenty beds. Liberal subscriptions have been given in aid of the undertaking.

THE VACANT CORONERSHIP.

DR. HARDWICKE, in addressing a meeting of electors on the 10th instant, took the opportunity of defending his late friend Dr. Lankester from the unjust attacks constantly made upon him by a section of the Middlesex magistracy. He contended that a coroner ought to be a medical man; legal knowledge, however necessary, being a secondary consideration. He would submit to the meeting that his continual services for twelve years as deputy to the late Dr. Lankester gave him some claim upon the suffrages of the constituency. In addition, he might say, that for several years he had been medical officer of health for one of the largest metropolitan districts. The office of coroner was one of great responsibility, and he should devote his most earnest attention to carry out faithfully and conscientiously its important duties. The promises of support he had received had given him great encouragement. Mr. Dyer moved, "That this meeting, having heard the address of Dr. Hardwicke, consider that the office of coroner is most suitably held by a medical man, and that, Dr. Hardwicke having for twelve years ably conducted the duties of deputy coroner, this meeting pledges itself to support that gentleman for the office of coroner, and to use their best exertions to place him at the head of the poll". The resolution was carried unanimously, and a large committee formed to secure Dr. Hardwicke's return. We are glad to learn that Dr. Hardwicke's prospects are good; but he will require the most energetic support from his medical brethren to defeat the strong efforts which are being made on behalf of his legal opponent.

THE WORTHING INFIRMARY.

THIS institution has had the attention of the public directed to it recently by the announcement of a bequest of £1,800 from the late Mr. Thomas Banting. About two months ago, "A Hospital Superintendent" pointed out in the local paper, the *Sussex Coast Mercury*, that, whereas there were eight beds available for the treatment of in-patients, the Committee of Management only allowed accident cases to be admitted; refused all medical cases, however urgent; and insisted upon a payment of five shillings a week from each in-patient or his friends during their stay in the hospital. The result of this system was, that only fifteen cases were admitted as in-patients during the twelve months ending August 1874; on fifty-nine days, the whole of the beds were unoccupied; and the average number of beds occupied throughout the same year was only one and a half. This state of things was allowed to continue, although many urgent medical cases, requiring the special attention which a hospital affords, were refused admission by the honorary surgeons, who were bound by the laws of the institution. Dr. Goldsmith, one of the honorary staff, says, in a letter published in the local papers: "In the course of my work on out-patient days, I have had to send many a poor sufferer home again, because the rules of the infirmary forbade me to admit them, although suffering from a curable disease." The *Sussex Coast Mercury* (to its credit be it said) took the matter up warmly and exposed these abuses without reserve. Much attention was thus directed to the subject, and, at the last two meetings of the Infirmary Committee, it has been decided to admit medical cases, reserving four beds for accidents. Mr. Dennett, the Honorary Secretary, is anxious to refuse admission to persons in receipt of parish relief and to those who have been attended by the parish medical officer. With proper restrictions, there is no doubt this would be a good rule, but we hope the committee will go further, and will also inquire into the circumstances of *all* patients who apply for relief, availing themselves of the services of the local branch of the Charity Organisation Society for the purpose. If they do this, and if they decide to refuse all persons who, it is proved, can afford to pay for medical advice, they will do a really good work. We should like to see a provident institution started in connection with the Worthing Infirmary, on the basis of the scheme laid down in the articles which have appeared in the *Sussex Coast Mercury*. If this were done, all classes would be able to make adequate provision for the day of sickness: the parish authorities would provide for the pauper cases, the provident institution for those who could afford to pay something for medical aid, and the Infirmary Committee would be able to confine their work to its legitimate sphere—the relief of that portion of the poor who, during health, are able to keep their families respectably without assistance of any kind, but who are powerless to do so when the bread-winner is stricken down with sickness or disease. The matter is still under consideration, and we hope the Worthing authorities will wisely adopt the course we have suggested.

ASTLEY COOPER PRIZE.

THE next triennial prize of £300, under the will of the late Sir Astley P. Cooper, Bart., will be awarded to the author of the best essay or treatise on "The Anatomy, Physiology, and Pathology of the Sympathetic Nervous System". Competition will be subject to the usual conditions, which will be found in our advertising pages.

AN USEFUL LESSON.

A FINE of 40s. and costs has been inflicted on Mr. Goodey, of Stanley Road, Ball's Pond, for exposing persons suffering from an infectious disease in a public conveyance, without taking precautions against the spread of the disorder. Defendant engaged a cab to take his wife and three children to the Tottenham Training Hospital, where they were refused admission. He pleaded ignorance of the law, and the penalty was mitigated in consequence.

HOSPITAL SUNDAY IN CUMBERLAND AND WESTMORLAND.

THE fifth annual report of the committee appointed to establish a Hospital Sunday for the benefit of the principal medical charities connected with Cumberland and Westmorland has just been issued. It shows that, during the past year, the collections in churches and workshops have amounted to £1006, being £192 more than was obtained last year, and £420 more than in 1870. The expenses were only £31, of which sum £20 was for the accountant's salary.

JAY *v.* THE GRESHAM LIFE INSURANCE COMPANY.

THIS case, which attracted considerable attention a short time since, is likely to come again before the public. The action was originally brought to recover £3000, the amount secured by a policy of insurance effected by Mr. Jay, the plaintiff, a physician at Scarborough, on the life of his wife, now deceased, on October 17th, 1872, with the defendants. The case was tried at the last assizes at Leeds, before Mr. Baron Amphlett and a special jury, and resulted in a verdict for the plaintiff for the full amount claimed. Mr. Digby Seymour, Q.C., now moved for a rule for a new trial, on the ground that the verdict was against the weight of evidence, and on the further ground of misdirection. The defendants pleaded that the policy had been obtained on a statement which withheld from the defendants facts material to a consideration of the risk; particularly that Mrs. Jay had been of intemperate habits for a period prior to the granting of the policy, and had been treated for liver-complaint resulting from alcoholic poisoning. The court granted a rule *nisi* generally.

AN ADULTERATION CASE.

At Greenwich, Mr. H. Parr, grocer, of the Trafalgar Road, was summoned for selling mustard adulterated with starch. The case was originally heard on October 8th, when a certificate, signed by the district analyst, stated that the sample of mustard bought at the defendant's shop and submitted for analysis contained 30 per cent. of starch. This statement being disputed, it was agreed that an independent analysis should be made by Dr. Heisch of Middlesex Hospital. The certificate of Dr. Heisch was now produced, stating that the analysis proved a great admixture of oatmeal, and more than one-third of starch, a greater adulteration than that certified by the district analyst. Mr. Patteson imposed a fine of 10s. and £5 8s. costs, the latter including £5 5s., fee to Dr. Heisch, which were paid.

THE MANCHESTER PROVIDENT SCHEME.

The provident dispensary scheme at Manchester has now been fairly launched. A public meeting was held on October 22nd, in the Ardwick Town Hall, to inaugurate a provident dispensary for the district. The details of the scheme were explained, and a resolution approving of it was unanimously passed in a large assembly. The Ardwick district comprises all the houses within three quarters of a mile of the dispensary; but any applicant residing outside the boundary will be accepted, providing the medical man by whom he wishes to be attended is willing to accept him, and that such applicant agrees to be transferred to any other provident dispensary which may afterwards be opened nearer to his house. It is expected that, when these provident dispensaries become thoroughly understood by working men, they will be supported to such an extent as to make them independent of all outside help. When this result has been attained, the Association will hand them over to the members, who will then, with the medical officers, become the sole managers. The great desire of the Association is to do away with charity, and to found a system by which working men and their families may obtain the purest medicines and the highest medical skill by means of their own small weekly payments, and without any loss of independence or self-respect. We are glad to observe that about a dozen medical men are on the staff of the Ardwick Dispensary, and that the managers are able to announce that, when it is needed, they are able to give recommendations for admission to three hospitals—the Infirmary, the Children's Hospital, and the Clinical Hospital—which have entered into a friendly relation with the Association. We shall be gratified to hear, from time to time, that other provident dispensaries have been opened in Manchester and Salford, and that this most interesting experiment is having a full and fair trial.

PROVIDENT MEDICAL SOCIETY FOR NEWCASTLE AND GATESHEAD.

On Monday, November 2nd, a new Provident Medical Society was opened in Newcastle. The general outline of the Society is as follows. Each adult member pays 3s. *per annum*, and each child 1s., and the entire payment for children is in no case to exceed 4s. *per annum*; the midwifery fee is 10s. 6d., and vaccination 1s. extra. In return for this payment, the Society proffers the entire services of a medical man, whose whole time is to be devoted to the necessities of the members, he not being allowed to engage in any private practice. In addition to this, the Society supplies all drugs, inclusive of cod-liver oil, etc., of the best description. This Provident Medical Society is to be carried on without any help in the form of subscriptions and donations, it being felt that, from the great number of workmen employed in Newcastle and Gateshead, in which cities there are thousands of artisans engaged in engineering and other works, such an institution ought to be entirely self-supporting. More than 1,400 persons have already joined, and it is anticipated that, when the advantages offered are understood, this number will be largely augmented. The scheme has been taken up heartily by many of the lodges of the friendly societies of the district. Upwards of nineteen lodges have joined, and have each a representative on the Committee. Not only does it offer to the societies the advantages of the entire services of one or more medical officers, and a plentiful supply of the best drugs, but it will also extend to the wives and children the same privileges which, under the club system, are held out to the men only. Should the numbers involve too much work for one medical man, it is the intention of the Committee to increase the staff, offering to the workmen the choice of their attendant. The President of the Society is the Rev. Rowland East, M.A., vicar of St. Andrew's, Newcastle, who first started the scheme, and who has materially assisted the movement by his influence, advice, and experience. The medical officer is Mr. C. Davison.

THE ROYAL SOCIETY.

The following is the list of the new Council to be proposed for election at the anniversary meeting of the Society on St. Andrew's Day next, the 30th instant. *President:* J. D. Hooker, C.B., M.D., D.C.L., LL.D. *Treasurer:* W. Spottiswoode, M.A., LL.D. *Secretaries:* Professor G. G. Stokes, M.A., D.C.L., LL.D., and Professor T. H. Huxley, LL.D. *Foreign Secretary:* Professor A. W. Williamson, Ph.D. *Other Members of the Council:* Professor J. C. Adams, LL.D.; the Duke of Devonshire, K.G., D.C.L.; John Evans, Pres. G.S.; F.S.A.; Captain Frederick J. O. Evans, R.N., C.B.; Albert C. L. G. Günther, M.A., M.D.; Daniel Hanbury, Treas. L.S.; Sir John Hawkshaw, M.I.C.E.; Joseph Norman Lockyer, F.R.A.S.; Robert Mallet, C.E., M.R.I.A.; Nevil S. Maskelyne, M.A.; C. W. Merrifield, Hon. Sec. I.N.A.; Professor E. A. Parkes, M.D.; Right Hon. Lyon Playfair, C.B., LL.D.; A. C. Ramsay, LL.D.; Major-General Sir H. C. Rawlinson, K.C.B.; and J. Burdon Sanderson, M.D.—The medals in the gift of the Society for the present year have been awarded by the Council as follows, and will be presented at the anniversary meeting of the Society on the 30th instant: The Copley Medal to Professor Louis Pasteur, of the Academy of Science, Paris, Foreign Member of the Royal Society, for his researches on fermentation and on pebrine; the Rumford Medal to Mr. J. Norman Lockyer, F.R.S., for his spectroscopic researches on the sun and on the chemical elements; a Royal Medal to Professor Wm. C. Williamson, F.R.S., of Owens College, Manchester, for his contributions to zoology and palæontology, and especially for his investigations into the structure of the fossil plants of the coal measures; and a Royal Medal to Mr. Henry Clifton Sorby, F.R.S., for his researches on slaty cleavage, and on the minute structure of minerals and rocks, for the construction of the micro-spectroscope, and for his researches on colouring matters.

SCOTLAND.

SMALL-POX AT PAISLEY.

The Infirmary directors in Paisley have informed the Police Commissioners that, if small-pox continue to increase as it has done, they must immediately provide additional hospital accommodation. There is accommodation for forty patients, and a few days ago there were thirty-four cases of small-pox under treatment.

THE LORD RECTORSHIP OF GLASGOW UNIVERSITY.

Mr. Forster declines to stand as candidate for the Lord Rectorship of Glasgow University. The Liberals have joined the Independents, and have declared for Mr. Emerson. The Conservatives stand by Mr. Disraeli. The contest will be a keen one, and both parties express confidence in carrying their respective nominees.

THE LORD RECTORSHIP OF EDINBURGH UNIVERSITY.

At a crowded meeting of Edinburgh University students, held on Saturday, the 7th instant, the following noblemen and gentlemen were nominated for the Lord Rectorship: the Duke of Argyll, the Earl of Derby, Sir William Fergusson, Mr. Lyon Playfair, Sir William Stirling Maxwell, Mr. John Bright, Mr. Tennyson, Mr. Darwin, the Marquis of Salisbury, the Duke of Buccleuch, the Duke of Edinburgh, and the Earl of Rosebery. On a vote being taken, it was declared that the Earl of Derby had a large majority over the other candidates. The result was received with enthusiastic cheering. The election takes place this Saturday.—A meeting of the students in favour of the election of Dr. Lyon Playfair was held on Tuesday—Dr. Brown presiding. It was agreed, after some discussion, that Dr. Lyon Playfair was a fit and proper candidate for the office of Lord Rector; and a committee was appointed to carry out the objects of the meeting. Dr. Lyon Playfair has intimated, by telegram, his willingness to place himself unreservedly in the hands of the students. The supporters of the Duke of Argyle have resolved to withdraw his grace's candidature and vote for Dr. Playfair, whose sole opponent is now Lord Derby.

UNIVERSITY OF GLASGOW.

IN the presence of a large assemblage of the faculty and students, Dr. M'Call Anderson, Professor of Clinical Medicine in the Glasgow University, delivered his opening address on the 6th instant. He referred to the little attention that had been paid to clinical instruction, and expressed his opinion that mere book-knowledge was of little value on the subject, unless its possessor were in a position to apply the principles which he had learned. He reviewed at length the more recent and important discoveries in medical science. Increased attention was beginning to be given to nursing. The days of the Gamps were rapidly passing away, and the generous and self-denying efforts of Florence Nightingale and others, who had associated themselves with the movement, were beginning to yield their much wished for results. And, however they might differ in opinion as to the propriety of the fair sex sharing the responsibilities of medical practice, they were pretty well agreed that men could not compete with them in the domain of nursing. Dr. Anderson impressed on his hearers the necessity of great attention being paid to nursing, and spoke highly in favour of ladies volunteering their services. He concluded by tendering some advice to the students for their course of study.

GLASGOW UNIVERSITY.

THE first session of the Clinical Surgery Class in the Glasgow University was opened on the 6th inst. with an address by Dr. George Buchanan, the newly appointed professor of clinical surgery. In addition to the students, there was a numerous attendance of the public. Dr. Buchanan, in the course of his address, said he considered that the teaching of the three departments of surgery was too extensive to be undertaken by one professor, and it was to be presumed that the future occupants of the chair would be men who, having gained experience as practical surgeons, had been looking to it as a prize for their devotion to surgery. Teaching during the limited time available would be concentrated on clinical work. He referred to the necessity that existed for having a chair of clinical surgery, and to the method of teaching that branch of science, and gave the students advice as to the best means of taking advantage of all the instruction at their command.

EDINBURGH UNIVERSITY COURT.

AT a meeting of the Edinburgh University Court held on November 9th, the appointments of Dr. E. A. Letts and Dr. A. P. Aitken as class-assistants, by the Professor of Chemistry; and of Dr. J. O. Affleck as class-assistant, by the Professor of Medical Jurisprudence, were approved. Dr. J. G. M'Kendrick was recognised as a lecturer on Institutes of Medicine, and Dr. Morrison Watson, Owens College, Manchester, was recognised as a lecturer on Anatomy, whose lectures should qualify for graduation in medicine in the University.

IRELAND.

AT the annual meeting of the King and Queen's College of Physicians, Ireland, held on October 19th, Surgeon-Major T. M. Bleckley, M.A., M.D., C.B., Army Medical Department, was elected a Fellow of the College, *causâ honoris*, in recognition of his services on the West Coast of Africa, as senior medical officer on board Her Majesty's (Hospital) Ship *Victor Emmanuel*, during the late Ashantee war.

AT a late meeting of the Borrisoleigh Dispensary Committee, it was unanimously resolved that the salary of Dr. Quinlan, medical officer of the district, should be increased from £100 to £120 *per annum.*

SCARLATINA and small-pox are still rather prevalent in Belfast. In the Union Hospital, for the week ending October 31st, there were 41 patients from the former disease under treatment, and 30 cases of small-pox. The deaths from scarlatina last week in Belfast amounted to 32, being 7 over the preceding week.

SCHOOL OF PHYSIC OF TRINITY COLLEGE, DUBLIN.

THE Board of Trinity College have appointed the following Examiners, in conjunction with the Professors, to conduct the medical examinations in the following subjects: Materia Medica, Dr. Rawdon Macnamara; Botany, Dr. David Moore; Physics, Rev. J. A. Galbraith.

DUBLIN HOSPITAL SUNDAY.

AT a meeting of the Executive Council of the Dublin Hospital Sunday movement, held last week, it was resolved that the Committee of Distribution be instructed, in estimating the work done, to take account of the following cases only:—Intern patients; extern midwifery cases; extern accidents; and that the Committee be requested to take evidence as to the approximate relative cost to the hospitals of these cases. The following were selected to constitute the Distribution Committee, viz.: Lord Monck, Sir Arthur Guinness, Sir Joseph Napier, David Drummond, Alexander Parker, Jonathan Pim, and S. F. Adair. At the morning service at St. Patrick's Cathedral, on Sunday last, a collection was made on behalf of the hospitals, when £81 : 16 was contributed, and a much larger sum was obtained at the evening service.

THE PUBLIC HEALTH ACT.

A DEPUTATION of medical officers of the north and south Dublin city districts had an interview with the Council of the Royal College of Surgeons last week. A letter addressed to the Local Government Board, signed by thirteen medical officers was read, in which they drew attention to the fact that they were appointed, under the recent Act, officers of health, at a salary of £10 each, *per annum*, and protested against the payment awarded to them upon the following grounds: 1. On account of the utterly inadequate remuneration offered; 2. That the duties of the office were compulsory; 3. That it was derogatory to their profession to accept any such payment as that offered; and that they unanimously declined to accept the same. Dr. Macnamara proposed the following resolution, which was carried unanimously: "That the Council of this College, having had their attention directed to the very inadequate scale of remuneration in a very great number of instances fixed upon by the sanitary authorities, not only in this city but throughout Ireland, as salaries for the medical officers employed under the provisions of the Public Health (Ireland) Act, feel it to be their duty respectfully to urge upon the Local Government Board the propriety of their taking such steps as will secure for said officers a scale of remuneration more in accordance with their social and professional status, and with the important and arduous nature of the duties expected at their hands."

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

AT the last quarterly meeting of the Belfast branch of this most useful and excellent society, it was observed that its resources might be largely increased if a little more effort was made by personal application to those who paid little attention to written appeals to their benevolence. An excellent example was set by the students of the medical department of the Belfast Queen's College, in liberally and regularly supporting the society, the good effects of which could not be overestimated. The proceeds of the Dublin collection, it was thought, might be considerably enlarged, were philanthropists outside of the profession applied to for their countenance in so good a cause, who, no doubt, would as liberally respond to the call made upon them as had been the case in Belfast.

INTRODUCTORY ADDRESSES AT THE DUBLIN HOSPITALS AND MEDICAL SCHOOLS.

THE MEATH HOSPITAL.

The Inaugural Address was delivered on November 2nd, by Dr. Foot, physician to the hospital. In the course of his lecture, Dr. Foot said the peculiar form of clinical education and training founded by Graves and Stokes, and adopted in the hospital, was calculated to produce the best results, and they had many proofs at home and abroad that it had done so. The student should commence his work in the dispensary; and, as time passed and he acquired knowledge, he might be trusted with the care of a case of typhoid fever. They could not find a proper source of knowledge in any book. It was only to be acquired through feeling, seeing, and acting. The most indispensable of all things to a student was note-taking. It was said that the frequent contemplation of scenes of sickness and death hardened their hearts and made them indifferent to human suffering. This was a libel. It was needful that the heart of a medical man should be a little hardened, or he would otherwise only be in the way, but he was as capable of feeling, sympathy, and compassion as anyone. He referred to the award of the gold medal of the Pathological Society to a student of the Meath Hospital. From India, Africa, Germany, and different parts of England and Ireland, accounts came of students from that hospital having covered themselves with honour. One gentleman, Surgeon-Major Porter, now Professor at the Military School, Netley, had earned great honour in the discharge of his duties in the Ashantee war. He had, among many competitors, been a successful candidate for the Empress of Germany's prize for the best essay on the treatment of the wounded, and among the decorations conferred on him was the much coveted Prussian Order of the Iron Cross. He had won his position by steady work and earnest zeal, but there was always relief in perpetual work.

THE RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

The Introductory Address was given by Mr. Thomson, on November 4th. Mr. Thomson said that it seemed to him that a grave mistake was too often committed in the insufficient preparatory training of medical students. The body at fault appeared to be the General Medical Council, which prescribed the examinations to be passed by every student in order to be duly registered. That Council recognised fifty different tests, all dissimilar in difficulty and extent, varying from the most severe to the most simple. Under certain conditions, he believed in the advantages of the "single portal" of admission to the profession. But, had not the Council commenced at the wrong end? Were they not falling into the error of demanding an uniformity of result, without trying to secure uniformity of preparation? Another mistake lying at the root of the question was the early age at which the student might enter upon his work. He should be at least required to undergo an examination equivalent to what was known as the "little-go" as the test of his educational status; and, besides subjects obviously necessary, there should be a fair knowledge of a foreign modern language and of the literature of his own, with the elements of logic and some of the higher mathematics and experimental science. It was a positive injury to the student to receive him on the terms prescribed by the General Council. He was deprived of the pleasures which were to be found in an acquaintance with general literature and philosophy. His mind had never undergone any of the strengthening discipline resulting from a practice of the simplest rules of logic; and before he had learned anything of the laws of thought, or been able to arrive at any mental breadth or depth, he was plunged into the midst of professional study. The requirements for admission should be, if anything, superior to those demanded for law or divinity; and the preparation which he indicated would not only prevent the mind of the student from running in a narrow professional groove, but would furnish a safeguard against objectionable recreation. The lecturer dwelt at length on topics of a technical character, and exhorting the students to application, remarking that in these days, amid the crush and keen emulation of the most active time the world had seen, those who were satisfied with mere existence must rapidly fall behind. He bore testimony to the energy, devotion, and courage of the great mass of medical students. He could honestly say of them that there was not any body of men more earnestly industrious, or among whom were to be found, perhaps, as great a number who were really prodigals in thorough vigorous work. Only those who knew the working of the hospital were fully aware of the tenderness, the big-heartedness, the unfaltering bravery which were daily exhibited by the students in times of trial and danger. They all knew how death had been calmly faced by many of their brethren with but the single motive of duty to actuate them; and also, they knew of many an one who had fallen in the struggle greatly gifted, full of hope, and fired with an enthusiasm which would have led him to the highest honour—

> "Struck down at noon amid the startled throng,
> An eagle shot while soaring to the sun."

Alluding to the aids to medicine and surgery supplied by modern science, the lecturer noticed the recent introduction of what was known as bloodless surgery. Many of them had seen the method frequently adopted in that theatre within the last fourteen months. According to statistics given by the distinguished man whose name was associated with this method, Professor Esmarch of Kiel, it had sufficed in amputations of the thigh and leg to bring down the proportion of fatal cases from 36 to 8 per cent. Students of the Dublin School of Surgery had much honour to maintain. They had had men whose names would ever be associated with whatever glory belonged to their profession—Crampton, Cusack, Porter, Colles; and in connection with that old Richmond Hospital—as renowned as venerable—Carmichael, Todd, Peile, M'Dowell, Hutton, and the illustrious teacher of many of them, Robert William Smith. One more they had—the distinguished father of surgery in Ireland—Robert Adams, who was still doing his work well and nobly.

THE MATER MISERICORDIÆ HOSPITAL.

The Opening Address was delivered by Dr. J. Hughes on November 3rd. Dr. Hughes said that it seemed to him that the importance of hospital attendance was not adequately appreciated by the mass of medical students. Some years ago, he expressed a hope that the licensing bodies of the kingdom would establish a more practical examination before conferring degrees or licences in medicine and surgery, and he stated his conviction that such a change was necessary to insure the efficiency of candidates for the public medical service and secure good practitioners for the public at large. He thought that compulsory attendance on theoretical lectures upon medicine and surgery should be dispensed with, on the ground that it limited the time necessary for hospital instruction, compared with which such teaching was very imperfect. With regard to the first matter, his hope had been realised, and the examination of those seeking to qualify as medical practitioners had been gradually assuming a more practical form, until candidates were brought face to face with disease, and called upon to diagnose its symptoms, declare its nature, and direct its proper treatment. Medical students would derive great educational advantages from the formation of small societies, in which cases might be discussed. He went as far as possible to establish one in connection with the hospital. The cultivation of the understanding and the storing of the mind with useful knowledge were indispensable for professional success. But he could not too strongly impress upon them that to attain professional pre-eminence a moral training was as necessary as the intellectual. In the exercise of their profession, they were carried into the bosoms of families, entrusted with individual and family secrets, and many delicate as well as grave and important matters entrusted to their honour. They should, therefore, exhibit a becoming demeanour; their passions should be restrained and controlled by reason, and their conduct regulated by the strictest morality and nicest sense of honour.

ST. VINCENT'S HOSPITAL.

The Inaugural Address was delivered by Mr. O'Leary, M.P., on October 30th. Mr. O'Leary said:—"The Public Health Act was called into existence by the necessity of preserving Her Majesty's subjects from untimely death; and the legislature wisely determined that, in order to stop the annual sacrifice of life, it was necessary to place as the guardians of the subjects' lives men who should best know how to preserve them. This is imperial policy, and it is a wise one. Give the doctor the power to restore from laws unnatural to natural laws, and then Death and his quota will be but 'nature's payment just'. Can the medical man, by his own knowledge, reduce the unequal foe grim Death to the honourable standard of an equal foe? My answer is, that is his mission; and for the fight he is prepared, if armed, to meet the 'dread avenger'. But for this he must be paid; and I tell you to do your duty, even under truly adverse circumstances, for the legislature which framed this Act cannot be set at defiance by the corner-working of any sanitary authority as constituted, and will, ere long, mete out justice where justice is now denied. Let me for a moment, by the mention of a few facts, endeavour to show you what has been accomplished by sanitary laws, and what is capable of being effected. The decided decrease of the death-rate in the populous and manufacturing towns of England is remarkable. In 1871, the death-rate in Dublin was 25, while, in 1872, it increased to 29 in every 1,000 of the population; while London, the largest city in the world, has brought her death-rate down to 19 in the 1,000. It may be fairly asked, Why is the death-rate in Dublin so much higher than it should be? The answer is simple, yet true. The energies of Dr. Mapother are powerless to a degree, while unaided by a sanitary staff of medical men, who alone have the knowledge to detect the subtle cause of disease and death. Now, I look upon the non-application of the Building Act to Dublin as the greatest calamity of all. Within the last five years, to my own personal knowledge, there has been allowed to rear its head a foe which will yet 'make countless thousands mourn'. Hundreds of dwellings for the artisan class have been lately built. Some of those buildings have as their foundations the sweepings of the streets—containing, as you are all aware, every conceivable form of organic matter; others built on a field, over the surface of which an immense and well freighted sewer emptied its disgusting filth for fifty years. These houses are now tenanted. Many of you often ask why it is that the faces of the little children, seen daily in our dispensaries, are so ghastly pale. Many wonder at the white and sickly faces, even of those who bring those children for medical treatment. Wonder no more; the answer to your question is simply told." Referring to the remuneration of medical officers under the Public Health Act, he said that, for his time, for his brain, for his anxiety, the medical officer is rewarded at last with the magnificent sum of a little less than 6¾d. per day. "For this, he must see every case on the spot immediately, report on it forthwith, keep in writing his recording diary of such cases, report the peculiar circumstances in each case for the guidance of the executive officer, report when called on, keep his diary for inspection, report quarterly, and write an elaborate digest for the year, retrospective, objective, and prospective, of the state of his district—and all for sixpence three farthings a day, with Sunday thrown in as a make-weight—travelling, perhaps, ten or twelve miles to see a single case on the spot! I am happy to see that the guardians of the South Dublin Union have appointed their superintendent sanitary officer at a salary equal to that of the clerk of the same union. This stands as the sole exception of guardians realising, even to a moderate degree, the fair remuneration which our professional brethren should receive at the hands of our newly constituted sanitary authorities."

COLLEGE OF SURGEONS' MEDICAL SCHOOL.

THE Opening Address was given by Dr. REYNOLDS on October 26th. Dr. Reynolds, in commencing his lecture, paid a tribute to the memory of Dr. Arthur Jacob, and commented on the extent of his labours and the value of his discoveries. A special Act of Parliament had lately come into operation in Ireland, which was likely to exercise a most important influence upon the future relations of the medical profession and the public. Up to the present time, the dispensary medical officers in Ireland had been, at least officially, the representatives of curative medicine only. The new Public Health Act had essentially charged them with the application of the principles of preventive medicine in addition. The Act was admittedly open to criticism; but the reasonable and prudent course would be to await experience in the application of its most useful enactments under the judicious supervision of the Local Government Board. When the defects of its working were fully and fairly ascertained, he thought they might look with confidence for the remedy to the distinguished statesmen who had charge of the measure in its passing through the legislature. He understood that a member of the profession, who was at the same time a member of the legislature, would, in another place, give a full and comprehensive criticism of this important measure. They were more nearly concerned in ascertaining the extent of the influence the new Act was likely to exercise upon medical education in this country. He was well aware that there was a wide-spread impression that this influence would be very great; but, after careful consideration of the matter, he thought that the actual effect would be comparatively slight. The substantial result would probably be to exalt the importance of certain departments of study which had been long taught. Medical men had for years been keenly alive to the importance of preventive medicine as a department of the general science, though it was only of late years that the public had taken even a moderate share of interest in a matter which most nearly concerned them. When they excluded the legal and engineering questions likely to arise under the new Act, and which should be dealt with by competent lawyers and engineers, he thought it would be found that no really new study need be introduced in order to fit a man for the performance of the duties of a medical officer of health. After speaking of the importance of preventive medicine, the lecturer referred to disinfectants and the probable causes of contagion. He dwelt specially on benzoic acid and ozone, and gave some interesting details of his experiments. He stated that benzoic acid was superior to carbolic acid. After mentioning various processes of fumigation, he referred to the properties of ozone as a disinfectant. He alluded to the experiments of Professor Andrews of Belfast, and, having remarked on the comparative absence of ozone in large cities and crowded factories, he submitted his plans for ozonising the air, and illustrated his views by a series of experiments. He concluded his discourse by impressing on the students the necessity of earnest and thorough work.

LEDWICH SCHOOL OF MEDICINE.

MR. KELLY gave the Opening Address on November 2. He said it was not his intention to flatter his audience, but to tell them some of those disagreeable but useful truths which, in consequence of being most frequently told by friends, were denominated "home truths." He would speak to them of themselves, and would speak of their good and bad qualities with equal freedom. He then dwelt on the more elevated and nobler as distinguished from the lower and secondary objects of the profession. The highest and best necessarily included the minor and intermediate advantages; thus, self-interest concurred with duty and humanity in urging them to attain the highest possible degree of perfectibility. He alluded to the important duties, social and moral, that devolved on the medical man in the course of his professional career, and argued strongly as to the necessity of a good general education for the proper fulfilment of those duties. Mere smattering of medicine was in such cases like the top boots and paper collar of the South Sea Islander—it served but to make nudity more apparent. The medical man should possess the combined attributes of the Christian, the gentleman, and the scholar, and he should ever remember that physic is a glorious profession but a vile trade. The lecturer then alluded at considerable length to the question of enrolment of the female sex in their profession. The question, he considered, one of growing importance, as many licensing bodies had already granted female diplomas, and it was a question that was entitled to full and calm investigation, and not as one of might against right. Women, he said, were undeveloped men, and this fact they would learn if they were admitted into their profession, and thus perhaps they might regain some of the modesty that they would necessarily forfeit by their admission. In their consideration of the subject he asked them to decline any participation in the unmanly threat that, by claiming an equality with them, women forfeited all right to their respectful consideration. He minutely examined the pleas put forward by women in support of their claims, and concluded that it could not be shown that they possessed superior suitability for any branch of practice in the profession. Although they might occasionally meet a woman of transcendent talent and remarkable physical strength, there was no question of the superiority of the average man over the average woman in pursuits demanding prolonged mental or physical strain. Even in the branches of the profession for which women claimed peculiar suitability, they admitted that they would occasionally be obliged to call in male practitioners; but the aid might be called in too late, or might, from want of experience, be useless.

CATHOLIC UNIVERSITY MEDICAL SCHOOL.

THE Opening Address was delivered by Dr. HAYDEN on November 3. The lecturer said that Dr. Lyon Playfair estimated the sickness arising annually in the United Kingdom from preventable causes, at four million two hundred thousand cases; and the yearly mortality from the same causes at one hundred and twenty-five thousand. A very large percentage of the persons so disabled or carried off belonged to the productive classes—mechanics and labourers who did the necessary manual work of society, and maintained their families upon their wages. When these men were disabled by sickness or removed by death, the support of their families must necessarily fall in large proportion upon the public rates, and society was punished for the neglect of one of its primary duties, that of protecting the helpless classes, not only by a higher rate of wages in proportion to the deficiency of hands, but by the infliction of a heavy tax to maintain widows and orphans. In another respect, the consequences of this neglect were still more deplorable. The poor were attacked in the first instance because the conditions of health (clean air, water, and earth) were in greatest defect in their habitations, the disease spread amongst them, and gained strength as it advanced by multiplication of morbific elements, till ultimately the air becomes so charged with these that the houses of the rich, especially those which were not protected by adequate sanitary arrangements, were invaded, and furnished a quota to swell the general bill of mortality. From the last report of the Dublin Sanitary Association, it appeared that the deaths from zymotic affections exhibited a considerable increase both in London and Dublin for the last, as compared with the preceding year, but that, proportionately to population, the mortality was four times as great in Dublin as in London. According to the Registrar-General's report, within the ten years ending on January 4, 1874, 15,831 deaths were caused by zymotic disease within the municipal boundary of Dublin. There could be no doubt whatever that by the strict observance of a few simple sanitary rules, by which an adequate supply of pure air and water and personal cleanliness were insured, diseases of the infectious class might be confined within the narrowest limits; that they might be deprived in great measure of their malignancy, and that the power of individual resistance to their operations might, by the same measures, be considerably increased. The fearful mortality caused by the epidemics of the middle ages was due, not so much to an inherent virulence in the disease which produced it, as to an utter disregard, arising from ignorance, of the laws of public health amongst the people. There was, however, evidence of an awakening of the public mind upon this question. Henceforward, under the recent Act, it would be the duty of dispensary medical officers, not only to identify disease, but to avert it.

THE CONTAGIOUS DISEASES ACTS IN LIVERPOOL.

[FROM OUR LIVERPOOL CORRESPONDENT.]

THE opponents of the Contagious Diseases Acts have just had a field-day in Liverpool, the proceedings of which are suggestive as to the tactics of that small but irrepressible party who seem bent on hindering to the utmost of their power the success of one of the most important and beneficial efforts of preventive medicine which the present generation has witnessed.

The *Liverpool Daily Post*, of November 6th, publishes the report of a meeting of the committee of "The Liverpool Association for the Repeal of the Contagious Diseases Acts", at which the Right Hon. James Stansfeld, M.P., stated that he had been informed "that 108 medical men in Liverpool had signed a protest against the Acts, and only 26 could be induced to sign one in favour of them". The meeting was also addressed by some five or six medical men, who, with one or two others, constitute the whole contingent of local medical celebrities who are opposing the Acts. The honourable gentleman, nothing daunted by so meagre a representation of upwards of two hundred resident members of the profession, "advocated the formation of a national association of medical men, and recommended that a public meeting should be held in Liverpool".

For the information of those interested in this subject, and for the special guidance of Mr. Stansfeld, who has evidently been what is vulgarly called "squared" by the knowing ones, we beg to state, on the authority of those who know how the matter really stands, that in Liverpool, as in London and elsewhere, a very large majority of the leading medical men of the town are convinced of the importance and benefits of these Acts, and, therefore, opposed to their repeal. They do not, it is true, call or attend public meetings or indulge in demonstrative and sentimental appeals to the *vox populi*, for the commendable reason that the subject, in its distasteful and unclean details, is wholly unfit for public discussion. In replying to a vote of thanks, Mr. Stansfeld was so kind as to tell those medical men who differed from him on those points, that if "they would look at the moral aspect of the case, they would be doing a duty to their consciences and to their God, and likewise a duty to their own profession by adding their testimony in support of the movement". The kindly interest and solicitude evinced by Mr. Stansfeld in their moral welfare will doubtless be appreciated by the medical men of Liverpool; we question, however, their disposition to accept his authority, or to follow his guidance in a matter upon which they are obviously much more competent to form a sound judgment than an ex-cabinet minister can possibly be.

On the same evening, at the Medical Institution, there was an unusually large attendance of members to hear and discuss a paper with the following pretentious but misleading announcement:

"On the sanitary results of the Contagious Diseases Acts upon the Army and Navy, and prostitutes registered under them, from the date of the first Act to the latest published official health return; being the substance of a report prepared for the Home Secretary, the Right Hon. R. A. Cross, with special reference to their proposed introduction into Liverpool."

This report, which had been carefully withheld from circulation amongst those who were about to discuss it, was, by the uninitiated, supposed to be an official document drawn up at the request of the Home Secretary to assist the Government in coming to a conclusion upon a proposal to introduce the Acts into Liverpool.

The real history of its origin was by the more wary believed to be as follows. The writer of the report, representing the views of those who wished to get rid of the Acts, had communicated with Mr. Cross in the hope of making that gentleman a convert to their doctrines; and he, no doubt, in accordance with official custom, suggested that a written statement of their opinions should be forwarded to the Home Office. We cannot certainly vouch for the correctness of this explanation; but it is well known that, on a recent occasion, the same gentleman with a similar object waited upon a member on the opposite side of the House, who begged to be furnished with a written statement, so as to avoid the necessity of entering into a *vivâ voce* discussion upon a subject so full of disagreeable and disgusting details.

The paper read before the Society was, perhaps, one of the most marvellous achievements within the memory of the oldest member. Many square yards of cardboard were covered with figures and statistics, comprising, we believe, the entire tables of the army and navy reports on the subject which had been issued since the commencement of the Acts. The author had evidently bestowed much time and careful study upon this formidable array of figures; and for forty minutes he sustained the interest and excited the astonishment of the large and attentive audience by the fluency, clearness, and precision of his exhaustive comments on every column and table. His industry was rewarded by the triumphant evolution from these marvellous figures of a discovery which, for originality and ingenuity, might almost vie with those of Harvey, Hunter, or Jenner; namely, that the contagious diseases (syphilis and gonorrhœa) among British soldiers and sailors possess some peculiar property which constitutes them an exception to all known laws of disease; inasmuch as their prevalence increases, and their virulence and mortality are aggravated, in a direct ratio with the extent to which they are subjected to remedial and preventive treatment. Was there ever a more remarkable illustration of the amazing elasticity of statistics, or a more striking example of ingenuity in their manipulation? There is no doubt that the author honestly and firmly believes in the extraordinary result of his own calculations; and it is very probable that he carried with him some, though we think not many, of those present.

The curious way in which the clearest heads and the most solid reasoners are occasionally mystified for the moment by statistics was further shown in the course of the discussion, when, a speaker having stated, in very decided terms, that the author's figures, unless they could be contradicted, placed his conclusion beyond controversy, went on to say that a large experience in statistics had convinced him of their frequent liability to mislead, and that, of all official statistics, those of the Army and Navy were the least to be depended upon; forgetting, no doubt, for the moment that the author's deductions were based exclusively on the reports of the Army and Navy Board.

The interest of this meeting was greatly enhanced by the presence of Mr. Acton, whose deep interest in this question had induced him to travel from London expressly to attend the discussion, having been invited by the President to take part in it. Mr. Acton related some of his personal experience and of the unquestionable efficacy of the Acts in checking prostitution, limiting the extension, and mitigating the severity, of syphilis in the protected districts. He would not, on the spur of the moment, attempt to discuss the voluminous statistics; he thought, however, that Dr. Balfour, who was responsible for the figures, and who had arrived at conclusions different from those of the author of the paper, would probably be able to afford a solution of much that seemed conflicting and contradictory.

The Medical Institution, following the usual custom of scientific bodies, does not take a vote in scientific discussion, but the general feeling of the meeting was manifestly strongly in favour of the Acts, and thus far may be taken as a reflex of the prevailing opinion of the profession of the town. In all leading public questions in which medical opinions and influence are involved, the profession of Liverpool have hitherto been found wanting neither in ability nor promptitude to make their influence felt; and, if no more demonstrative public action have been taken in support of the Contagious Diseases Acts, it is owing, not to indifference, but to a strongly prevalent feeling that the peculiar nature of the subject renders it necessary, in the interests of common decency and morality, to avoid all unnecessary discussion *coram publico*. Their patience has been sorely tried by the audacious prurience of some of the fanatical opponents of the Acts, who have obtruded silly and indecent pamphlets into the very privacy of decent and respectable families; still they have deemed it more conducive to morality to let the dirty thing alone. If, however, there is to be a public meeting in Liverpool, it is hardly to be expected that those who will neither suggest nor do anything to mitigate one of the most terrible and destructive diseases with which the human race is afflicted will be allowed to have it all their own way.

The last report of the Metropolitan Police to the Home Secretary on the working of the Acts in Plymouth, etc., during the past year, shows that they are doing a good work, and are silently and surely gaining the confidence and support of all who are practically acquainted with their operation; so that we may expect that Liverpool will be spared further trouble or necessity for action, until Mr. Stansfeld's proposed National Medical Association has become an accomplished fact, and has been galvanised into life and action by the agitation of a band of well intentioned, but lamentably misguided, humanitarians.

DUTIES OF VACCINATION OFFICERS.

TOWARDS the end of last session, an Act, consisting practically of but one section, was passed relating to vaccination, its object being to empower the Local Government Board to make rules, orders, and regulations prescribing the duties of guardians and their officers in relation to the institution and conduct of the proceedings to be taken for enforcing the provisions of the Vaccination Acts, and the payment of the costs and expenses relating to such proceedings; and, under the authority of this statute, the Local Government Board have just issued, in the shape of a general order, a code of regulations and instructions to guardians and vaccination-officers. As all our readers may not, perhaps, be thoroughly conversant with this matter, it may be worth while, perhaps, to give, but very briefly, an account of what has been done in this respect.

By the twentieth section of the Vaccination Act, 1867, boards of guardians were authorised to pay officers appointed by them to prosecute persons charged with offences against the Vaccination Act. The appointing or non-appointing was, however, a matter of discretion and choice with the guardians, for they were not required to make such appointments, though many boards did avail themselves of the power hereby given to them. In January 1871, when small-pox was to some extent prevalent in different parts of the country, a memorandum was issued by the Medical Department of the Privy Council Office (for the Local Government Board had not then been created, and the duty of issuing regulations with regard to vaccination had been imposed upon the Lords of the Privy Council) on the steps specially requisite to be taken by boards of guardians under the Vaccination Act, 1867, in towns where small-pox is epidemic; and a part of this memorandum consisted of special instructions to vaccination-officers; but, as there were many unions in which there had not been any such officers appointed, the instructions were, as regards such unions, practically a dead letter. In 1871 (by Section 5 of the Vaccination Act of that year), the appointment of a vaccination officer or officers was made obligatory on every board of guardians after January 1st, 1872; and as, in the meantime, the governmental supervision of vaccination had become transferred to the Local Government Board by the Local Government Board Act of 1871, the power of making regulations for the performance of the duties of vaccination-officer became vested in the Local Government Board, who, on the 21st of December of that year, issued a new code of instructions to vaccination-officers; the Board having previously (on October 17th, 1871), in a circular letter addressed to all boards of guardians, called their attention to the change in the law, and to the fact that on January 1st, 1872, it would become obligatory upon them to make such appointments, and urged them to at once proceed to make the arrangements necessary for complying with the law.

The instructions of December 1871 have been those upon which vaccination-officers were up to the present time acting; but now the Local Government Board, considering it desirable that those instructions should be enlarged and amended, have issued a general order for that purpose, the order being dated the 31st of October last. This order, though rescinding the orders and regulations already in force, re-enacts most of them again; and so we shall not do more than refer to those portions of the present order which vary the regulations which have hitherto been in operation.

The first alteration which has been made is in that of assistants Art 1). The present order provides for the appointment of more than one assistant to the vaccination-officer whereas the previous order authorised boards of guardians to "appoint an assistant to the vaccination-officer", for such time as they may think necessary. Article 12 of the present order makes the payment of the vaccination-officers contingent upon their having complied with the instructions annexed to the order —a condition which, we think, was not specifically stated in the order of 1872, though of course it was implied.

Sections V and VI (Art. 16, 17, and 18) of the order are new, and are of considerable importance, as they relate to the taking of legal proceedings and their cost. We therefore state what they are more fully.

Article 16 directs that the guardians shall, in all cases in which the provisions of the Vaccination Acts for enforcing vaccination have been neglected, cause proceedings to be taken against the persons in default, and for this purpose shall give directions authorising the vaccination-officer to institute and conduct such proceedings; and then follows a very important command in regard of what are practically second and subsequent prosecutions, for the order continues to state that no such directions shall authorise the vaccination-officer to take further proceedings, under Section 31 of the Vaccination Act of 1867, in any case in which an order has already been obtained and summary proceedings taken under that section, until he has brought the circumstances of the case under the notice of the guardians, and received their special directions thereon.

Article 17 requires the vaccination-officer to take any proceedings which the Local Government Board may direct him to take under the Vaccination Act; and Article 18 directs that the guardians shall pay the reasonable costs and expenses incurred by the vaccination-officer, and that the vaccination-officer shall pay to the credit of the guardians all moneys recovered or received by him in respect of costs and expenses, or in respect of penalties under the Vaccination Acts.

It appears to us that there is one omission from this order, and that is an important one. There is provision for paying the vaccination-officer; but, as regards the payment of their assistants, the order is silent, the whole of the section (3) on the subject of remuneration being devoted to vaccination-officers only.

As regards the schedule of instructions to vaccination-officers, as to what are their actual duties, these will be found to be, for all practical purposes, altered but in three particulars: two of these alterations have reference to proceedings against parents and guardians who neglect to have their children vaccinated. In the old instructions, the vaccination-officer (unless he had been authorised by a general resolution of the guardians to take legal proceedings without further instructions) was to report every case (in which proceedings were necessary) to the guardians at their next Board Meeting for their instructions thereon; for the future, the vaccination-officer, if, on personal inquiries, he shall find that parents do not comply with the requirements of the Vaccination Acts, is to proceed according to the directions given in Article 16 of the order which has already been given above. This direction refers both to weekly and longer periodical vaccinations, though, in regard of the latter, a slightly different course of previous inquiry will probably be necessary.

The third alteration adverted to has reference to the sending in to the guardians and Local Government Board summaries of the vaccinations performed in each vaccination-officer's district. Under the old instructions, these summaries were to be sent in at the end of every quarter or half-quarter, as the guardians directed, whereas, under the new schedule of duties, these summaries are to be sent in half-yearly in a form provided by the Local Government Board.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

Opening of the Extra-Academical Session.—The Lord Rectorship of the University.—The Royal Medical Society.—Dr. Rutherford's Introductory Address.

THE Introductory Address to the winter session of the Extra-Academical School of Medicine was delivered on November 2nd, by Dr. W. Stephenson, in the lecture hall of the Royal College of Surgeons. He was supported by a number of his colleagues, the lecturers of the school. After some practical and useful hints to the students as to their conduct and methods of work, Dr. Stephenson spoke of the present requirements of medical men, and of the attainments, moral and intellectual, which go to make up a trustworthy practitioner of medicine. He contrasted the male and female characters; and, while he claimed for the former no intellectual superiority, he considered that in the ability to command the emotions, man stands pre-eminent. He failed altogether to see the necessity for lady-doctors, though he would throw no obstacle in their way. The concluding part of the address had relation to some alterations which he thought necessary in the system of examinations. There was a large attendance of students.

The office of Lord-Rector of the University falling vacant this year, and the election of a successor to the present Rector, Sir W. Stirling Maxwell, being in the hands of the students, there is naturally just now a good deal of excitement on the subject among the electors. Hitherto the Rectors have all been men eminent in science, literature, or politics, and it is to be hoped that the students will again exercise their rights as well as they have done before. There is certainly no lack of names of candidates brought forward, to judge from a crowded meeting held on Saturday night, when the present Rector, the Duke of Argyll, Dr. Lyon Playfair, Lord Derby, Mr. Darwin, and others were all proposed and seconded; but, owing to the tumultuous nature of the proceedings, no definite opinion can be formed as to the views of the majority.

On Friday evening, November 6th, Professor Maclagan opened the session of the Royal Medical Society with a most interesting address, consisting of a sketch of the early history of the Society, and containing an account of several of the lives of its originators. This session is the 137th of the Society's existence, it having been founded in 1737 by about eight students. The first dissertation was by Cumming, on "Rabies Canina". Like other bodies of a similar nature, its rise was slow, and it had to pass through the usual struggle for existence. The great objects which its original promoters had in view were, according to the lecturer, the advantages of social intercourse, the mutual improvement, and the preparing for examinations; the most important part of which latter in those days consisted in defending the thesis. These advantages the Society still has to offer, and the opportunities for the exercise of independent thought and free discussion of debated topics are as great now as ever. Dr. Maclagan proceeded to point out the uses of a scientific training in medicine, and advised all students to choose their subjects of a thesis rather from a theoretical than a strictly practical subject, for the two reasons—firstly, that the former admits of more discussion; and, secondly, that of practical medicine, as such, students cannot be supposed to have any deep knowledge. He combated the usual arguments against the Society, such as "expense" and "waste of time", and showed them how profitably one night a week might be spent in cultivating the art of speaking and the habits of business. The lecturer concluded with a summary of the lives of Cleghorn, Fothergill, Russell, and Cumming, four of the founders of whose lives he had been able to procure a clear account, and gave more full details of the career of Sir Stuart Thriepland, one of the original members, who was born in 1715 during the Jacobite rebellion in that year, and who afterwards followed the fortunes of Prince Charles Edward. He was out in the '45; his estates were forfeited; and a reward was set upon his head. He escaped to France, and only returned to Scotland after the passing of the Act of Indemnity. His skill as a physician, though not used for profit, was always at the service of distressed Jacobites. The record of this deeply interesting life, Dr. Maclagan obtained from his descendant the present baronet.

On Tuesday, Professor Rutherford delivered his inaugural address on the Present Aspect of Physiology to a very large meeting of students and others. The address was excellent, and met with a very cordial reception.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 27TH, 1874.

TIMOTHY HOLMES, F.R.C.S., Librarian, in the Chair.

ANEURISM OF THE ABDOMINAL AORTA OF UNUSUAL SIZE. BY ROBERT H. BAKEWELL, M.D.

THE patient, a man, aged about 38, after suffering for some months from pain in the back, left thigh, and knee, found a swelling in the left lumbar region. About a week after this appeared, Dr. BAKEWELL was called in, on April 24th, and found a round fluctuating tumour there, which could also be felt through the abdominal wall. There was no pulsation; fluctuation could be felt very distinctly both in front and behind. The patient was seen again the next day, and then not for a month. On May 25th, the tumour was found bulging out at the side and in the lumbar region, and occupying the whole of the left side of the abdominal cavity, and pulsating vehemently. The tumour was evidently an enormous aneurism of the aorta. A gentleman to whom it was shown by Dr. Bakewell thought it a cyst or abscess, and proposed to tap it. This being agreed to by the patient, a fine trocar was plunged in. Nothing but blood flowing out, the cannula was plugged and left in. The aneurism continued to increase in size, and the man died from exhaustion on June 29th. There was no hæmorrhage from the aneurism. At the *post mortem* examination, the aneurism was found to have originated from an opening in the posterior wall of the aorta opposite the twelfth dorsal vertebra. The aorta was the seat of extensive atheromatous disease. The heart was small, pale, and fatty, but both endocardium and pericardium were free from disease.

The CHAIRMAN remarked that aneurism seemed common among painters. He himself had seen three in the subjects of lead-poisoning. This, he thought, militated against the plan of lead treatment. In this case, there was no pulsation when the tumour was first discovered; this was not uncommon in cases of abdominal aneurism. He had a case where the only symptom to be found was great pain in the back and one leg. After an unusually careful examination, there came on much pain and collapse, the patient in no long time dying. A large aneurism, which had burst into the omentum, was found. Pulsation was most likely to occur when the aneurism was tense. It was just possible that in this case repeated tapping might have done good. In an interesting case, reported by Professor Gairdner, great relief was given by bleeding. Certainly the plan of leaving in the trocar was not to be commended.—Dr. DAY said that in a case seen by him, on the first occasion there was no pain, but the next time there were both pain and pulsation. It ended in bursting.

CASE OF A FOREIGN BODY IMPACTED IN THE FEMALE PELVIS FOR TWENTY MONTHS: RECOVERY AFTER ITS REMOVAL.

BY RICHARD BARWELL, F.R.C.S.

The lady, the subject of the paper, having great dread of identification, it became necessary to conceal under a pseudonym the medical man who called Mr. BARWELL to the case. In May, 1874, Dr. Blank called Mr. Barwell to a lady, aged 24, with abscess about the hip, and gave the following history. Miss X. had consulted Dr. Blank for supposed sciatica in February, 1873, but he gave the opinion that she was not suffering from mere sciatica, but from some local irritation. Under the treatment prescribed she got better, and he lost sight of her for a year. She then called on him again, with abscess, and he extracted the confession that some time before the first interview she had been seduced, and by the intervention of a female friend had procured the services of an abortionist. This man had passed in at the vulva what, by description, was judged to be a gum-elastic catheter; it was left *in situ*. The man returned next day, but nothing save the ivory button was left for removal. Mr. Barwell found a large abscess over the hip, and a sinus in front of the anus, which did not communicate with the abscess. He was obliged to content himself with letting out the pus, which was highly fæculent. A week afterwards, he examined the patient *per vaginam*, and found leucorrhœa, a pendent cervix, and a patulous os uteri. On passing the finger around the cervix, Mr. Barwell felt in the posterior *cul-de-sac* a transverse line of induration, but no opening anywhere in the vagina. *Per rectum*, by searching very high, and with a good deal of pressure over the pubes, a like line was detected in front of the rectum. Search was made for an opening, and after a time, still higher in the bowel, a small one was discovered; this was dilated, the finger introduced, and a foreign body was found. A narrow pair of long forceps was passed in, the body seized, and a loop of it drawn through the opening into the rectum, and within better reach of the finger, which was hooked into it. Thus was drawn into the rectum, and out at the anus, a gum-elastic catheter which had lain between the uterus and bowel for twenty months. The patient had not had a bad symptom since the operation, but was perfectly well six weeks after, and remained well up to the present time. The author read the history thus. It was probable that the abortionist used the catheter with the stylet, that he passed it into the os uteri, and thrust it through the posterior wall, but only to a certain extent, and withdrew the stylet; that subsequent defæcation and the expulsory movements of the uterus forced or drew the remainder of the instrument through the wound; that it lay curved (in form like the brim of the pelvis) between the uterus and rectum; set up the irritation attributed to sciatica, and afterwards the suppuration terminating by opening outwards and into the rectum.

Mr. SPENCER WELLS had some difficulty in understanding Mr. Barwell's explanation. Accepting his statement, the catheter must have passed through the peritoneal cavity. More probably, in pushing the body through the canal of the cervix it must have passed through the vagina, and so into the connective tissue beyond.—The CHAIRMAN remarked that there was no mention of abortion having taken place; but on this point Mr. Barwell was unable to give any accurate information. —Mr. DE MÉRIC asked if menstruation had taken place, and if the bowels were in order.—Mr. BARWELL said there must be omissions in such a paper. The patient seemed now quite well.

CASE OF SUCCESSFUL REMOVAL OF A LARGE FIBROMYOMA OF THE FUNDUS UTERI BY ABDOMINAL SECTION. BY LAWSON TAIT, F.R.C.S.

The abdominal tumour had been in existence for five years, growing rapidly in the preceding months, during which the catamenia were very profuse, and the distress great from pressure on the pelvic organs. Symptoms of obstruction having several times occurred, and the patient expressing an earnest desire to be relieved, the removal of the tumour was recommended, and the operation performed on January 16th, 1873. The operation was conducted as for ovariotomy, the chief difficulties occurring in the extraction of the tumour and the application of the clamp, the tumour involving the whole of the fundus uteri. The wound was closed by five deep sutures, and three superficial. The succeeding sickness yielded to the administration of Morson's pepsine wine, and the recovery was uninterrupted. The clamp came away on the eighth day after the operation, the wound healing rapidly, and all that remains of the uterus is a little button representing the cervix attached to the abdominal cicatrix. The tumour after removal weighed eleven pounds. The observations on temperature were made by Dr. John Harvey, who watched the case.

Mr. SPENCER WELLS said he would bring the substance of his notes on such operations before the Society at a subsequent period. He had only three cases of the kind which could be called successful. In one the patient died after a year from cancer; in two he had been quite successful. The mortality was larger than after ovariotomy. His own rule was not to operate except the disease was bringing the patient to death. —After some remarks by Mr. COOPER FORSTER and Mr. SPENCER WELLS as to the treatment of intrauterine bleeding growths, the CHAIRMAN remarked that in the report of such a case there should have been a much more distinct statement as to the reasons for the operation.

ASSOCIATION INTELLIGENCE.

SOUTHERN BRANCH: SOUTH HANTS DISTRICT MEETING.

A MEETING of the above District will be held at the School of Science and Art, Portsmouth, on Tuesday, November 17th, at 8 P.M. W. H. GARRINGTON, Esq., J.P., will occupy the Chair.

Notice has been received of the following communications.

1. Inspector-General Smart, M.D., C.B.: Remarks on the Secondary Epidemics of Cholera in Europe.
2. J. R. Kealy, M.D., and W. H. Axford, M.B.: Cases of Rupture of the Uterus.
3. Cases of Disease and Preparations.

J. WARD COUSINS, *Hon. Sec.*

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETINGS.

THE next meeting of the above Branch will be held in the Library of the County Hospital, Canterbury, on Thursday, November 19th, 1874, at 3 o'clock; JOHN BOWES, Esq., of Herne Bay, in the Chair.

Dinner will be provided at the "Fleur-de-Lis" Hotel at 5 o'clock precisely. Charge 5s., exclusive of wine.

Notices have been received of the following communications to be read at the meeting.

1. Mr. Arthur Long: Case of Scrotal Hernia, with complications.
2. Mr. Hutchings: Case of Intestinal Obstruction.
3. Mr. C. G. M. Lewis: Case of Intracranial Tumour.
4. Dr. Wallich: On the Effects of Chloral.
5. Mr. Thurston: Case of Amputation of the Thigh by Esmarch's plan.

Gentlemen who intend to be present at the dinner, are particularly requested to inform me on or before Tuesday, the 17th instant.

EDWARD WHITFELD THURSTON, *Honorary Secretary.*
Ashford, November 11th, 1874.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICT MEETINGS.

A CONJOINT meeting of the above Districts will be held at the Royal Pavilion, Brighton, on Friday, November 20th, at 3 P.M.; Sir JOHN CORDY BURROWS in the Chair.

The Chairman invites all country members to luncheon at his residence, 62, Old Steine, from 1 to 2.30.

By the courtesy of the directors, all members will have free admission to the Aquarium on presenting their cards.

The Brighton Town Council have placed the use of the Pavilion rooms at the disposal of members on the above occasion; and, in addition, the Town Library and Museum, where Sir Cordy and Lady Burrows propose to give a *soirée*.

W. J. HARRIS, Worthing,
THOMAS TROLLOPE, M.D., St. Leonard's-on-Sea, } *Hon. District Secretaries.*

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE next meeting is appointed to be held at the Ophthalmic Hospital at Maidstone, on Friday, November 20th, at 4.45 P.M.; H. CECIL SMITH, Esq., in the Chair.

Dinner will be provided at the Mitre Hotel, at 7 P.M.

Dr. Monckton has promised a paper on Rheumatism and Pyæmia.

FREDERICK JAMES BROWN, M.D., *Honorary Secretary.*
Rochester, November 3rd, 1874.

STAFFORDSHIRE BRANCH.

THE next meeting of the above Branch will be held at the London and North Western Hotel, Stafford, on Friday, November 20th, at 4 P.M.

VINCENT JACKSON,
RALPH GOODALL, } *Honorary Secretaries.*
Wolverhampton, November 9th, 1874.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next meeting of the above Branch will be held at the Black Lion Hotel, Aberdare, on Thursday, November 26th, at 12.30 P.M. Meeting of Council at noon.

Dinner will be provided as usual. Members intending to be present are requested to communicate their intention to Dr. Sheen, Cardiff, on or before the 23rd November.

Those members who desire to read papers are requested to forward the titles of the same to Dr. Sheen, as early as possible.

ANDREW DAVIES,
ALFRED SHEEN, M.D., } *Hon. Secs.*
Cardiff, October 29th, 1874.

BATH AND BRISTOL BRANCH.

THE second ordinary meeting of the session will be held at the York House, Bath, on Thursday evening, December 3rd, at 7.30 P.M.; F. MASON, Esq., President.

R. S. FOWLER,
EDMUND C. BOARD, } *Honorary Secretaries.*
Bath, November 1874.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

THE annual meeting of the above Section was held on Friday, October 30th, 1874; present, T. WATKIN WILLIAMS, Esq., in the chair, and thirty members.

Reports.—The report of the Secretaries was read and adopted. The report of the Treasurer, showing a balance of £22:11:3, was read, audited, and adopted.

Officers.—On the motion of Mr. FURNEAUX JORDAN, seconded by Mr. WEST, Dr. Russell was elected President for the ensuing year. Mr. Vincent Jackson and Dr. Jolly were re-elected Secretaries.

Alteration of Laws.—It was proposed and seconded that law 2 shall read as follows: "That the meeting shall be held on the last Friday of the months of October, November, January, and February".

The late Mr. Ebbage of Leamington.—A letter was read from Mrs. Ebbage, thanking the members of the Section for their resolution of sympathy and condolence upon the death of her husband.

Communications.—1. Mr. HUGH R. KERR exhibited a male patient whose lost Nose had been restored by an operation. The destruction of the organ had been caused by Syphilitic Ulceration.

2. Mr. WEST presented a Resected Knee-Joint. The specimen was taken by Mr. Birt of Stourbridge from the body of a young man, aged 21, for whom Mr. West had twelve months previously performed resection of the knee, but who had recently died from phthisis. The condyles of the femur had been the seat of extensive necrosis, and had been removed in their entirety, as also the patella. Complete bony ankylosis had taken place between the femur and tibia, and an useful limb would have remained to the patient, had he not succumbed to extensive lung-disease.

3. Mr. **Eales** exhibited for Mr. Solomon a case of Choroido Iritis relieved by a free vertical incision of the cornea.

4. Mr. **Priestly Smith** showed a new Demonstrating Ophthalmoscope.

5. Mr. **Bartleet** showed the bones removed in an Excision of the Knee-Joint. The patella was ankylosed to the femur, and a sequestrum lay loose in the head of the tibia. A peculiar feature in this case, was the very slight symptoms which attended such an advanced stage of articular disease.

6. Mr. **Ottley** exhibited the right Scapula of a man aged 50. The body of the bone was transversely fractured in two places, and this injury, together with that of fracture of the underlying ribs, was caused by the wheel of a cart going over the chest.

7. Dr. **Jolly** exhibited a specimen of Caries of the Bones of the Wrist Joint, for which amputation of the forearm had been performed.

CORRESPONDENCE.

THE RECENT ELECTION AT WESTMINSTER HOSPITAL.

Sir,—Will you allow me to state, in justice to myself, that my election to the office of Physician to Westminster Hospital occurred on Friday, November 3rd, and I only followed the usual custom there of resigning the office of Senior Assistant-Physician before becoming a candidate for the post of Physician. The difficulty of getting a quorum on October 23rd, was due to the balloting for an Assistant-Physician from 10 till 2. The requisite number to elect a physician, of those who were entitled to vote, was never present at any one time.

I am, etc., G. Duncan Gibb.

Bryanston Street, November 7th, 1874.

SKILLED MONTHLY NURSES.

Sir,—A letter from Mr. Wood on the above subject, in your issue of the 7th instant, is too important to be allowed to pass without consideration. He there compares a modern trained monthly nurse, with her superior knowledge, with a plain common-sensed countrywoman—the former without common sense, and the latter with it; and he naturally, like all other medical men, prefers the plain clean-minded countrywoman to the so-called trained woman with the puffed-up and dirty, but by no means exalted mind. I have, however, in my limited experience of eighteen years, met with honest country nurses without much common sense, who sickened the mother (in *first* cases) with castor-oil, gave the infant cinder-tea, and rubbed its little breasts, to get the milk down, I suppose, or to pass their time away, not being given much to reading, and quite as tyrannical in their way as the trained nurse—country nurses who were just as totally unfit to be monthly nurses as the so-called trained nurses to whom Mr. Wood alludes, and whom he was quite right to dismiss. I can safely assert that the objection of Mr. Wood to trained nurses, that, without any discretion, they are prone to engage the patient's attention, it may be from the time of her confinement, with stories of their experiences, refers equally to the rustic nurse—the one without common sense. I once heard one exclaim, "There they are burying poor Mrs. B., and the baby only —— days old". The patient in whose presence this was said had, after one confinement, precipitated herself into the hall from the first floor, with no other injury, fortunately, than a scalp-wound. The reign of terror here was suddenly set up, but with a kind of *coup d'état* was upset; for, the husband being in, I advised a change of nurses—to another untrained one, it is true, but one with plenty of common sense. My advice was taken.

All will, no doubt, agree with Mr. Wood when he says that a nurse must be wise and discreet, as well as trained and skilled. Surely, unless a woman be this, she is not fit to be a nurse; and I would go further than Mr. Wood, when he says it would be well if those under whom the nurses acquire their training would strive to inculcate a humility of mind and a kindliness of manner, as well as caution them against telling the patient too much about herself. I would say it is the business and duty of teachers, so far as in their power and judgment lies, to prevent such a woman as Mr. Wood depicts to go forth as a trained nurse. As a nurse, the woman is an utter failure. I believe the percentage of women who fail to become good nurses is very large. It would be highly interesting to know the facts and to have the figures. I cannot, of course, claim more common sense for the trained nurse; but I claim this advantage in employing one from a nursing institution: I can report her conduct, if unsatisfactory; I can utterly condemn her by dismissing her as Mr. Wood has done; and no manager of a nursing institution would, in all probability, employ her as a nurse again. In short, a trained nurse from an institution is more under medical restraint, which I hold to be a good thing.

I am, etc., C. Orton.

Newcastle-under-Lyme, November 8th, 1874.

Sir,—The engagement of a monthly nurse at present is made independently of the patient's medical attendant. Lately I have insisted on seeing the nurse beforehand, and have thus prevented the occurrence of such an accident as that recorded by Mr. Miles Wood in last week's Journal. The average standard of education amongst monthly nurses is at present exceedingly low, and, with the exception of two or three instances, I cannot mention a properly qualified monthly nurse out of a long list of names. If others will pursue this rule, and insist on examining the capability of the nurse in every case they undertake to attend, we shall soon have a better class of women to conduct a most important branch of nursing. I am, etc.,

An Obstetric Physician.

P.S. As it sometimes happens that the patient considers she is bound to employ a nurse, or pay her, if the engagement have been made previously to that with her medical attendant, I should be glad to know how far such an engagement is binding.

INQUESTS ON PREVENTABLE DEATHS.

Sir,—Though there can be no doubt that a judicial inquiry in cases of preventable death would tend very powerfully to check the culpable carelessness that often produces them, it is not clear why an inquest by the coroner's jury would do this better than an inquiry before the magistrates. Any person who wilfully so acts as to endanger another is liable to indictment for misdemeanour, and may, if a strong *primâ facie* case be proved, be committed or held to bail for trial, or, in such a case as that mentioned at Chepstow in your number for the 7th instant, to be fined or imprisoned; and it seems most probable that magistrates would be as likely as a coroner's jury to decide wisely and well. Indeed, it is not evident what a coroner could do in such a case. It is unlikely that an accusation of manslaughter could be maintained; and, if not, the jury could only censure, which they have no legal right to do, and which magistrates could do with far more propriety and effect; and magisterial censure of those in fault would go far to warn others against similar disregard of the public safety, even if no actual punishment were inflicted. I am, etc., H. H. P.

HOSPITAL "CHARITY".

Sir,—It is probable that through the medical journals the public mind may be enlightened on the subject of hospital charity. A little plain speech may be used to advantage where reform is so much needed. If we are honest, and free from every feeling but that of justice to the public, and of proper respect for ourselves and our honourable profession, we must desire such reform.

"Charity" is no term for such a system as has grown up among us. Where is it? we may ask. Amongst the Committees of Management? There are contention, pride, base competition, but not charity. Amongst the medical officers does that virtue exist? Is their readiness to do the duties of an out-patient room the offspring of charity? For whose real good is all this expenditure of time and money, this begging, this advertising, this wonderful "charity"?

Our profession is indeed becoming degraded, if it allow such a state of things to continue. Mr. W. Fairlie Clarke suggests that the Council of the British Medical Association should do something to improve the present evils. Honest men will help. I am, etc.,

An Old Member of the Association.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Alcester.—Mr. G. H. Fosbroke, the medical officer for Alcester Union, makes a report for his district, which shows the remarkably low death-rate of 13.4 per 1,000; of the deaths, there were but three due to fevers. This low rate of mortality, however, cannot be ascribed to the excellence of the drainage, for the sewers are very faulty in construction. The majority of the drains are untrapped, and open close to the doors and windows of houses, allowing free ingress to sewer-gas, so that, should an attack of typhoid commence, the surroundings are favourable to its spreading, and especially so, as the well-water supply is in many cases more or less contaminated from close proximity to cesspools and privies. Mr. Fosbroke gives sound advice as to the measures which should be taken to remedy this state of things, and regrets that he has so much to complain of. The unusual healthiness of the town certainly is due more to luck than to the judgment of the sanitary authorities.

NEWCASTLE-ON-TYNE.—The death-rate of this town during the past year has been unusually high (30.1); the excess over the average being caused by a severe outbreak of scarlet fever and diarrhœa, the latter complaint having alone been the cause of 23 per cent. of the entire number of deaths, while scarlet fever caused 18 per cent. of the general mortality. The excessively dry weather which prevailed during the last year was not favourable to the health of the town. Situated in parts on a steep hill, the sewers were not sufficiently flushed, and the gases naturally ascended to the higher streets, and from the condition of many of the houses found ready access into the interior. The borough engineer having taken steps to ventilate the sewers, a decline in the rate of mortality from scarlet fever at once took place. The want of rain, also, injuriously affected the health of the low-lying portions of the town from a different cause. The atmosphere needs washing, and in these districts the air, to which the carbonic acid and other gases stagnate, is apt to gravitate. The vigilance of the sanitary inspector has reduced the overcrowding evil to the minimum, and consequently typhoid has not prevailed to any extent. One special indirect cause of disease and death is pointed out as well worthy of the attention of medical officers of large manufacturing centres, as it gives in a few words the medical effects of strikes on the death-rate, a view which is generally overlooked by the principal actors. Mr. Armstrong says, "There are also influences powerful in the production of disease and the shortening of life which belong rather to the moral than the physical sanitarian, and whose effect, though undoubted, can be but vaguely estimated. Foremost among them are to be considered the engineers' strike of two years ago, and the prevalence of drunkenness. Some proof of the extent and ill effects of drunkenness in this town is afforded by the governors of the Newcastle Infirmary, who report that 367 cases of accident to intoxicated persons received treatment in that institution during the twelve months ending March, 1874. I believe the privation to which the wives and children of operatives were exposed during the late strike, and the dissipation consequent on the high wages and short hours of labour since that time, have helped considerably to impair the constitutional vigour both of adults and of children, rendering them an easy prey to disease". Dr. Armstrong has very carefully prepared some diagram-tables which show the rate of mortality from specific diseases at any period of the year, and for clearness and simplicity of arrangement are of the greatest utility.

SELBY.—In a report communicated to the Selby Rural Sanitary Authority, Dr. Parsons gives a complete sanitary description of the village of Cawood. The place possesses many natural advantages; the houses are well constructed and efficiently ventilated, and there is little or no overcrowding or destitution; but the water-supply is to a great extent of a polluted character; there is, practically, an absence of any system of sewerage, the means of excrement disposal are imperfect, and enteric fever has to some extent prevailed there. Dr. Parsons makes certain recommendations with a view of remedying these defects, and amongst other things he gives some excellent advice as to the proper management of closets, in which the admixture of ashes and the excreta is aimed at.

POOR-LAW MEDICAL APPOINTMENTS.

ALEXANDER, William, M.D., appointed Medical Officer to No. 2 District of the Liverpool Union.

CLARKSON, William, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for Nos. 1 and 8 Districts of the Morpeth Union.

COLLES, Abraham, M.B., appointed Medical Officer for the Workhouse and No. 3 District of the Bridgnorth Union, Salop.

DAVIES, Frederick, M.R.C.S.Eng., appointed Medical Officer to the Brentford Union Workhouse.

GIBBS, Robert, M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Harrold District of the Bedford Union.

HERRING, John F., Esq., appointed Medical Officer to the Builth District of the Builth Union.

HUBBARD, Thomas C., L.R.C.P.Ed., appointed Medical Officer to the Borough District of the Walsall Union.

IRVINE, William, M.D., appointed Assistant Medical Officer at the Workhouse, Liverpool.

MACLACHLAN, James, M.D., appointed Medical Officer to the Workhouse of the Walsall Union.

M'LAREN, William, M.B., appointed Parochial Medical Officer and Public Vaccinator for Pentland, Edinburghshire.

OWEN, Rober M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Anglesey District of the Bangor and Beaumaris Union.

SHARP, Henry, M.R.C.S.Eng., appointed Medical Officer for the Blackpool District of the Fylde Union, Lancashire.

TURNER, Horace, M.R.C.S.Eng., appointed Medical Officer to District No. 1 of the Foxhoe Union.

APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

MARTLAND, William, M.R.C.S.Eng., appointed Medical Officer of Health for the Blackburn Urban Sanitary District.

SPEAR, John, L.R.C.P.Ed., appointed Medical Officer of Health for the South Shields Urban Sanitary District.

THE VACCINATION ACT.

SIR,—The provisions of the Vaccination Act are year by year more and more sedulously carried out, and probably very few children are now left unprotected from the ravages of small-pox. Doubtless in this the nation is blessed; but the working of the Act is so inimical to the interests of the private practitioner, that his silence and long-suffering are a daily wonder. Parliament, in its wisdom, enacted that vaccination appointments should be held only by union medical officers. Mine is a private practice amongst all classes of the community. Week by week, month by month, year by year, I see mothers and babies (my mothers and my babies, many of them) thronging the doors of the vaccination officers. These gentlemen are, or ought to be, polite and agreeable; moreover, they have the credit of "doing the children for nothing", so that it is but natural their services should be in requisition on future occasions of illness. This is, in effect, what does happen: and gradually nearly the whole of the labouring, artisan, and small shopkeeping class have forsaken my fold, diminishing my income to the extent, perhaps, of one or two hundred a year; at the same time, I am precluded from maintaining my succession of vaccinations as heretofore. The reply to my request to be allowed to vaccinate upon the same terms as the union medical officers, that I may retain my connection, is—that the thing is impossible. This is a grievance that must apply to a vast number of practitioners; and I can only suppose it is because of the feeling that remonstrance is hopeless, that they sit down quietly under their losses. Under a wise and paternal government, such things ought not to be.

I am, etc., SUSPIRIUM.

MILITARY AND NAVAL MEDICAL SERVICES.

IN accordance with the provisions of an order in Council of February 22nd, 1870, Inspector-General of Hospitals and Fleets John Davidson, M.D., C.B., has been placed on the retired list from the 20th October, 1874.

A VACANCY has occurred on the list of Staff-Surgeons and Staff-Surgeons Second Class on the pension list of Greenwich Hospital, in consequence of the death, at New Cross, on the 4th instant, in his 70th year, of retired Deputy Inspector-General of Hospitals and Fleets Frederick Wm. Le Grand, M.D., R.N.

IN accordance with a decision of the Director-General of the Army Medical Department, orders have been issued at Aldershot directing that, when medical officers attached to regiments are junior to the medical officer in charge of the station hospital of the brigade in which they are serving, they are to do duty in the hospital under his supervision, in addition to their regimental or other duties.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon-Major T. P. Wright is allowed to proceed to Europe, on medical certificate, in anticipation of furlough.—The services of Surgeon D. H. Cullimore, of the Madras Medical Department, are placed temporarily at the disposal of the Foreign Department.—Surgeon-Major R. C. Thorp, M.D., civil surgeon Kuladghee, is allowed furlough to Europe for two years from November.—Surgeon-Major Finnemore has rejoined at Portobello Barracks from leave of absence, and resumed charge of the Transport Branch.—Surgeon-Major O'Leary has returned to Portobello Barracks from leave of absence, and resumed medical charge of the Royal Horse Artillery.—Surgeon Thomsett has been placed under orders of readiness to proceed to India during the next troop season.—Surgeon R. D. Bennett, recently returned from the Ashantee expedition, is effecting an exchange to India with Surgeon Peatfield. The following officers of the Army Medical Department have embarked for India: Surgeon-Major Smith and Surgeons Webb, Mapleton, Ray, Wilkins, Ryan Smith, and Parnell.

ARMY MEDICAL APPOINTMENTS.

BUCHANAN, Staff-Surgeon R. F., to the medical charge of the 2nd Battalion 10th Regiment.

BURNETT, Surgeon W. F., 68th Foot, to officiate in medical charge of the Poorundhur Sanatorium, during the absence of Surgeon Watling, on leave.

CLEVELAND, Surgeon-Major E. S., M.D., 4th Light Cavalry, to perform the military duties of the garrison-surgeon, Billary, during the absence of Surgeon-Major L. W. Stewart, on leave.

COCKBURN, Deputy Surgeon-General R., temporarily to the Saugor Circle.

FRAZER, Deputy Surgeon-General, M.D., appointed Medical Officer of the military prison at Greenlaw, on retiring on half-pay.
HARVEY, Surgeon C. A., 11th Madras Native Infantry, appointed to the medical charge of the 2nd Light Cavalry.
HUNT, Surgeon S. B., from the 7th Madras Native Infantry to the Native Infantry Depôt at Palaveram.
MOOKERJEE, Surgeon P. N., 39th Madras Native Infantry, to 7th Madras Native Infantry; to remain with 39th Madras Native Infantry till relieved.
ROSS, Deputy Surgeon-General J. T. C., Saugor Circle, to the Decca Circle (as a temporary arrangement).

NAVAL MEDICAL APPOINTMENTS.

BUCKLEY, Staff-Surgeon John, second class, to the *Endymion*, additional, in lieu of a Surgeon.
DUCKET, Staff-Surgeon C. A. (second class), to the *Duncan*.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent Second M.B. Examination.

First Division.

Branfoot, Henry Seymour, Guy's Hospital
Crocker, Henry Radcliffe, University College
Duncan, Andrew, King's College
Duncan, Peter Thomas, University College
Eastes, Thomas, Guy's Hospital
Gould, Alfred Pearce, University College
Harris, Vincent Dormer, St. Bartholomew's Hospital
Nicholson, Arthur, King's College
Rigby, James Arthur, Guy's Hospital
Sturge, William Allen, University College
Whittle, Edward George, University College

Second Division.

Ashby, Henry, Guy's Hospital
Beach, Fletcher, King's College
Briggs, George Chapman, King's College
Davies, David Arthur, University College
Houghton, Walter Benoni, University College
Morley, Thomas Simmons, Guy's Hospital
Moss, Herbert Campbell, King's College
Percival, George Henry, Guy's Hospital

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 5th, 1874.

Kershaw, Joseph, Manchester
Newton, Edward Shackfield, Canonbury Park
Stringnell, Frederick William, Carlton Road, Kilburn
Tomlin, Robert Francis, Lewisham Road, New Cross

The following gentlemen also on the same day passed their primary professional examination.

Henwood, John Davey, Charing Cross Hospital
Lingard, Alfred, St. Thomas's Hospital
Saunders, Edward Argent, University College

MEDICAL VACANCIES.

THE following vacancies are announced:—

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon: £80 per annum, board and residence. Applications on or before December 14th.
CASTLEBAR DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.
CITY OF LONDON UNION WORKHOUSE—Resident Medical Officer.
CORK FEVER HOSPITAL—Physician.
COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY—Resident Medical Officer: £100 per annum, board, etc., or £120 per annum, lodging, etc., without board. Application, 16th inst., to Howel Howells, Secretary.
DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer: £250 per annum, with residence, coals, gas, etc. Applications on or before 16th instant.
DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. No salary, but apartments, board, and washing. Applications, not later than 21st instant, to Mr. Samuel Whitaker, 4, Victoria Street, Derby.
EAST LONDON HOSPITAL FOR CHILDREN and DISPENSARY FOR WOMEN, Ratcliff Cross—Resident Medical Officer: £60 per annum, board, lodging, and washing. Applications on or before 19th instant.
EVELINA HOSPITAL, Southwark—House-Surgeon; £70 per annum, board and washing. Applications on or before 20th instant.
FRIENDLY SOCIETIES' MEDICAL INSTITUTE, Northampton—Out-door Assistant: £120 per annum. Applications, 14th instant, to Secretary.
FROME UNION—Medical Officer for No. 3 District. £75 per annum.
HACKNEY UNION INFIRMARY—Resident Medical Officer: £200 per annum, board and lodging.
HUDDERSFIELD INFIRMARY—House-Surgeon: £80 first year, £90 second year, and £100 third year, with board and washing. Applications on or before 23rd instant.
KENT LUNATIC ASYLUM, Barming Heath—Resident Medical Officer.
LEXDEN and WINSTREE UNION—Medical Officer for No. 2 District: £36 per annum.
LOUTH UNION—Medical Officer for Hainton District: £8 per annum.
MALE LOCK HOSPITAL—Dispenser. Applications on or before 19th instant.
MARKET BOSWORTH UNION—Medical Officer and Public Vaccinator for the Desford District: £30 per annum, and extras. Applications, on or before 24th instant, to T. B. Fitch, Clerk, Congerstone, Atherstone.
OAKHAM RURAL SANITARY DISTRICT—Medical Officer of Health; £60 per annum.
QUEEN'S HOSPITAL, Birmingham—Resident Secretary and General Superintendent (unmarried): £150 per annum, board, and lodging. Applications, 25th instant, to the Chairman of the House Committee.
RIPON DISPENSARY—Resident Medical Officer: £100 per annum, furnished apartments, etc.
RYDE DISPENSARY—Physician.
ST. GEORGE'S and ST. JAMES'S DISPENSARY—Accoucheur. Applications on or before 19th instant.
ST. JAMES'S, Westminster—Medical Officer of Health: £200 per annum.
SALISBURY INFIRMARY—Physician.
TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.
TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.
UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-upon-Tyne—Lecturer on Anatomy, Lecturer on Midwifery, Lecturer on Medical Jurisprudence, and Lecturer on Botany. Applications not later than 21st inst.
WESTERN GENERAL DISPENSARY, Marylebone Road—Physician. Applications to the Secretary on or before 23rd instant.
WORCESTER UNION—Medical Officer: £65 per annum.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

ALDERTON, T. G., L.R.C.P.Lond., appointed House-Surgeon to the West London Hospital, *vice* W. L. Webber, L.R.C.P., resigned.
*BAXTER, Evan B., M.D., appointed Assistant-Physician to King's College Hospital.
CAMERON, J., M.B., appointed Medical Superintendent of the Argyll and Bute Lunatic Asylum, Lochgilphead.
*COUGHTREY, Millen, M.B., appointed Professor of Anatomy and Physiology in the University of Otago, New Zealand.
CURNOW, John, M.D., appointed Assistant-Physician to King's College Hospital.
DONKIN, H. B., M.B., appointed Assistant-Physician to the Westminster Hospital.
*FENWICK, John C. J., M.D., appointed Physician to the Belgrave Hospital for Children, *vice* *F. E. Anstie, M.D., deceased.
*GIBB, Sir George D., M.D., appointed Physician to the Westminster Hospital, *vice* *F. E. Anstie, M.D., deceased.
HALLAM, Walter, M.R.C.S.Eng., appointed Assistant House-Surgeon to the Sheffield General Infirmary.
HORNE, T., L.R.C.P.Ed., appointed Assistant Medical Officer at the Fisherton House Lunatic Asylum, Salisbury.
LAKING, Francis H., M.D., appointed Visiting Apothecary to St. George's Hospital.
MASON, R., M.R.C.S.Eng., appointed Resident Medical Officer to the Ramsgate and St. Lawrence Royal Dispensary, and House-Surgeon to the Seamen's Infirmary, *vice* T. H. Hills, L.R.C.P., resigned.
MUNRO, A. C., M.D., appointed Assistant Medical Officer to the Southern Counties Lunatic Asylum, Dumfries, *vice* J. Cameron, M.B.
SEYMOUR, Francis, M.R.C.S.Eng., appointed Assistant Medical Officer at the Norfolk Lunatic Asylum, Thorpe, *vice* J. Shaw, M.D., resigned.
SUTTON, John R. H., L.K.Q.C.P.I., appointed Local Physician to the Convalescent Home, Stillorgan, near Dublin.
WREFORD, Samuel, M.R.C.S.Eng., appointed House-Surgeon to the York County Hospital, *vice* A. Kebbell, M.R.C.S.Eng., resigned.
WHITMORE, W. T., M.R.C.S.E., appointed House-Surgeon and Chloroformist to the West London Hospital, *vice* T. G. Alderton.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

MOORE.—On November 7th, at 7, Museum Street, Ipswich, the wife of Harry Gage Moore, L.R.C.P.Lond., of a daughter.

DEATH.

BORLASE, Henry W., M.D., at Helston, Cornwall, aged 48, on October 18th.

THE LATE PROFESSOR SEDGWICK.—About £10,000 has at present been subscribed towards the proposed geological museum at Cambridge in memory of the late Professor Sedgwick, which will, it is estimated, cost £31,700.

PRESENTATION.—Mr. E. Swain, the Assistant Medical Officer of the Brookwood Asylum, having been appointed Superintendent of the Three Counties Asylum at Arlesey, Bedfordshire, his retirement was made the occasion of a celebration and presentation of a piece of plate subscribed for by the patients and members of the staff. The testimonial consisted of a black marble clock with bronze figures and ornaments inlaid with gold and red marble, a pair of Wedgewood vases to match, and a centre-piece for table floral decorations. On the clock was the following inscription: "Presented to Mr. Swain by the officers and staff of the Brookwood Asylum, as a token of their respect and esteem for him during his residence among them as Assistant Medical Officer for the period of six and a half years. November 4th, 1874."

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—Lon- don, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M. —Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hos- pital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Braine, "Abnormal Growth of Lip (living specimen)"; Dr. Cleveland, "Specimen of Warty Tumour"; Mr. Napier, "Something new (or believed to be so) in Dental Surgery"; Dr. R. J. Lee, "On Maternal Impressions".

TUESDAY.—Pathological Society of London, 8 P.M. Dr. Whipham: Epithelioma of the Œsophagus ulcerating through into the Trachea. Dr. Silver: Abscess of the Liver associated with Dysentery, and Sloughing of Small Intestine. Dr. Graily Hewitt: Ovarian Cyst, with Muscular Envelope. Dr. Fred. Taylor: Induration of the Sterno-mastoid Muscle in an Infant. Mr. Clement Lucas: Cystic Cancer of the Kidney. Dr. Curnow: Double Arch of Aorta enclosing Trachea and Œsophagus. Dr. King: Aneurism of Aorta, which ruptured into the Left Auricle.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. W. F. Teevan, "On Dribbling of Urine; its Diagnosis and Treatment".

FRIDAY.—Medical Microscopical Society, 8 P.M. Dr. Goodhart, "On Buccal Psoriasis, or Ichthyosis of Tongue".

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

PREVENTION OF ACCIDENTAL POISONING.

SIR,—I have read with great interest your account of the poisoning case at Dewsbury, where morphia had been given by mistake for pepsine. I have made up my own prescriptions upwards of forty years, and I invariably read the label of the bottle before I measure or weigh, and repeat the process before I replace it on the shelf, and the consequence is that I have never made a mistake.

I am, etc., J. LIDDELL, M.R.C.S.E.

Newcastle on-Tyne, November 1874.

*** In addition to these precautions, which in a hurry sometimes fail, we think that a "poison-cupboard" should always be used, and that Savory and Moore's fluted bottles should be employed for storing poisonous substances and drugs.

THE "PEN-VACCINATOR'.

SIR,—Under the above name, Dr. R. Harvey Hilliard presents to the profession, in your issue of November 7th, a new instrument for vaccination. Permit me to point out that this so-called new invention is simply a slightly modified form of an instrument invented by myself upwards of eighteen years ago, to which I gave the name of the "vaccine-insitor"; and a full description and drawing of which is to be found in the JOURNAL of September 17th, 1856. The only alteration effected by Dr. Hilliard apparently consists in making the shoulders of the blades broader near their points, in order to adapt the instrument for scarification in the place of making a punctured wound; the latter being the object for which I designed the "insitor", as being more favourable for absorption, as well as for inserting the lymph at one operation.

I am, etc.,
GEORGE EDWARD NICHOLAS, M.D., Medical Officer of Health for Wandsworth.

Nos. 2 and 3, Church Row, Wandsworth, November 11th, 1874.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

WE regret that Dr. Miller's enclosure arrived too late for insertion in last week's JOURNAL.

DR. T. M. WILLS (Bootle).—In omitting the letters F.R.C.S., we acted in accordance with our custom of inserting only one professional title. We do this without any doubt as to the possession of those titles which are omitted.

ON THE RIGHT MANAGEMENT OF THE PUERPERAL STATE.

SIR,—It is the conviction of the writer that the conditions favourable to a rapid recovery from childbirth are the very opposite of those ordinarily enjoined. First of all, "let there be light". There is no reason in the world why, as a rule, the patient should be kept in a darkened room. Let there be, if possible, an abun- dance of cool and refreshing air circulating through the chamber. Let the patient be plentifully supplied with good solid food—no slops. Let her be removed from the bed to the sofa on or before the third day. If she be accustomed to the use of a cold bath, let her take one on or before the fifth day, and at the end of a week she will in all probability be thoroughly restored.

In contrast to the case alluded to in my previous letter, let me mention the following. In the autumn of 1872, after undergoing considerable fatigue, the wife of the proprietor of one of the largest *pensions* in Switzerland—a woman of splendid physique—miscarried at the fifth month. A doctor of the place was sent for, who insisted that she should be kept in bed for some weeks. Her room was darkened and her windows closed. Under such conditions she at once lost her appetite, and took nothing but slops. At the end of a fortnight she was taken with a deadly faintness. The doctor was sent for, who then made the discovery that the placenta was lying in the vagina in a putrid state; the natural consequence of which was, that she gradually sank.

Let the unprejudiced reader reflect what would probably have been the result had this unfortunate lady been treated in the manner I have suggested.

I am, etc., M.D.

Harlesden, November 1874.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Nov. 9th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press: The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Hampshire Telegraph; The Sheffield and Rotherham Independent; The Standard; The Portsmouth Times; The Armagh Guardian; The Morpeth Herald; The Bradford Observer; The Stroud News and Gloucestershire Advertiser; The Glasgow Herald; The Liverpool Mercury; The Liverpool Porcupine; The Scotsman; The Hackney Express; The Bedale and Northallerton Times; The Broad Arrow; The Surrey Advertiser; The Sussex Coast Mercury; The Ulster Advertiser; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—Dr. J. Hughes Bennett, Nice; Dr. Wardell, Tunbridge Wells; Dr. J. Matthews Duncan, Edinburgh; Dr. James Russell, Birmingham; Dr. H. Sutherland, London; Dr. T. P. Lucas, London; Dr. Edis, London; Mr. T. W. Blackshaw, Stockport; Mr. J. Liddell, Newcastle-upon-Tyne; Dr. R. J. Lee, London; Mr. W. M. Banks, Liverpool; Mr. N. Dobson, Clifton; Dr. J. A. Menzies, Naples; Mr. Eastes, London; Dr. W. B. Woodman, London; The Editor of the *Pharmaceutical Journal;* Dr. Kelly, Taunton; Mr. G. de Gorrequer Griffith, London; Dr. Cheadle, London; Mr. Wreford, London; Sir G. D. Gibb, London; Our Dublin Correspondent; Cosmopolitan; Surgeon; Mr. J. Ashburton Thompson, London; Mr. F. Fry, Maidstone; Mr. North, York; Dr. John Brunton, London; Mr. Turner, Edinburgh; Dr. Hayden, Dublin; Dr. Jukes Styrap, Shrews- bury; Dr. Hime, Sheffield; Dr. A. B. Steele, Liverpool; Mr. Symmons, Ledbury; Dr. Miller, Glasgow; Dr. Lawrence Turnbull, Philadelphia; M.R.C.S.; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Buchanan, Glasgow; M.D., Harlesden; Dr. Tuckwell, Oxford; Mrs. Dalrymple, Norwich; Dr. Bakewell, New Zealand; Mr. Anthony Bell, Newcastle-upon-Tyne; Mr. Thurston, Ashford; W. W.; Mr. Vincent Jackson, Wolverhampton; Mr. R. Goodall, Wolverhampton; Dr. Orton, Newcastle-under-Lyne; M.R.C.P.; E. H.; Mr. R. Garner, Stoke-upon Trent; Suum Cuique; Mr. T. Holmes, London; Mr. R. S. Fowler, Bath; An Associate; Mr. E. B. Board, Bristol; Dr. Allan, Fort William; Mr. W. E. Buck, Leicester; Sir Wm. Gull, London; Dr. Trollope, St. Leonard's-on-Sea; Mr. W. J. Harris, Worthing; Our Edinburgh Correspondent; H. M. G; A Member of the British Medical Association; Mr. W. S. Savory, London; Mr. W. Wallis, Hartfield; Mr. Allan Macbean, Caistor; Mr. Charles Williams, Norwich; Dr. Brailey, Witham; Dr. Cummins, Cork; Dr. E. Klein, Wands- worth; Dr. Farquharson, London; Mr. Groves, London; Dr. Rutherford, Edin- burgh; Mr. Henry Barnes, Carlisle; Dr. Shettle, Reading; Dr. Crisp, Chelsea; Dr. Morton, Glasgow; Dr. Meymott Tidy, London; Dr. A. B. Vesey, Maghera- felt; Mr. T. G. Alderton, London; The Secretary of the Statistical Society; Mr. G. W. Joseph, Warrington; Mr. Warburton, Pately Bridge; Dr. Sutherland Rees-Philipps, Cheltenham: etc.

REMARKS
ON THE
ACTION OF HYDRATE OF CROTON-CHLORAL ON MEGRIM.*

By SYDNEY RINGER, M.D.,
Professor of Materia Medica in University College, and Physician to University College Hospital.

It is hardly necessary to observe that under the term megrim I include those affections commonly called sick headache, bilious headache, nervous sick headache, and hemicrania. The most characteristic and commonest symptoms of megrim are headache and sickness; but, in a typical case, these symptoms are preceded by other significant and interesting phenomena. At the onset of an attack, a peculiar affection of the sight first occurs, soon to be followed by perversion of the sense of touch and of the muscular sense in the arms and legs; by disordered speech and defective ideation; the headache then comes on, and, as it becomes intensified, nausea gradually sets in.

The affection of the sight may consist of mere absence of vision, beginning at the centre or circumference of the field of sight. When at the circumference, the defect is generally situate to the right or left of the axis of vision. From the centre of the visual field, the blind spot gradually expands, and as it enlarges it then clears up in the centre, and so gradually disappears to the circumference. As the blind spot expands, its margin is often lighted up with spectra variously described as glimmering, dazzling, bright zig-zag lines, coruscations, etc.

In ten minutes to half an hour, on one or both sides of the body, numbness and loss of sensibility occur, followed by tingling, formication, "pins and needles", felt most distinctly in the hands, tongue, and lips. Speech is commonly disordered, the aberration in some cases being simply memorial, in others simply motorial; in others, again, these two derangements of speech are more or less combined. In other words, one patient forgets his words, another forgets how to utter them, whilst a third manifests a combination of these two defects. There is, too, loss of memory, confusion of ideas, and a bewildering feeling, as if the patient were going out of his mind. In half an hour or a little longer, these phenomena are followed by headache, which is generally felt on waking in the morning; it is at first slight, but intensifies till it may become most severe, indeed, almost unbearable. It affects one or both brows, and, beginning at one spot, gradually extends, till it may involve the greater part of the head. The throbbing, stabbing, cutting, boring pain is increased by movement, noise, light, smells, or food. When the area of pain is very limited, the complaint is termed *clavus*. As the pain subsides, or even during the whole attack, the patient may suffer dull or shooting pains in the eye of the affected side. There is much tenderness of the scalp during and after an attack.

Throughout the attack, the patient complains of nausea, which may be slight, but usually increases, and, when the pain is at its worst, ends in vomiting, which may be severe and prolonged, causing much prostration; yet occasionally vomiting affords relief.

Lasting a few hours, the whole day, or even two or three days, the attack generally ends in calm refreshing sleep, but sometimes it gradually subsides or ends abruptly in vomiting, perspiration, or, more rarely, a copious flow of tears. The attack may be preceded and followed by very obstinate constipation or by diarrhœa, the liquid motions being in some instances pale, in others of a deep brown, mahogany colour. Before and after the attack, there is often much dusky discoloration around the eyes.

It is now almost universally held that megrim is an affection of some part of the nervous centre. Dr. Liveing, to whose exhaustive work I am considerably indebted, considers that, in a typical case, the disturbance takes place first in the optic thalamus, and passes backwards and downwards, reaching to the nucleus of the vagus below; for, as he observes, in a typical seizure, the visual disorder is always the initial symptom, the headache the middle, and the vomiting last. Where morbid intellectual phenomena and disorder of speech occur, the affection radiates from the thalamus to the hemispheric ganglia, and, where emotional phenomena occur, to the mesocephale.

Though the affection is seated in the nervous centres, yet it must be recollected that the frequency and severity of the attacks both depend on peripheral exciting causes, due to the stomach, intestines, liver, womb, etc. Even when the affection is strongly developed and the periodic attack recurs apparently spontaneously, the seizures may be rendered more frequent and severe by remote exciting causes; nay, in many cases, the affection may remain so slight, that it lies dormant till roused into activity by some near or distant irritation, on removing which the seizures altogether cease.

The successful treatment of megrim depends less on change to be effected in the disordered nervous centres than on the removal of the exciting cause. The treatment of megrim, therefore, falls under three heads:

1. The treatment of the central nervous affection;
2. The removal or prevention of exciting causes;
3. The treatment of the paroxysm.

Many remedies act in a twofold or even threefold way. Thus bromide of potassium is often extremely serviceable in two ways. It is very useful in those cases where the seizure is due to uterine disturbance, as in menorrhagia and dysmenorrhœa. Sometimes the attacks are more severe and frequent, arising from the exhausted state of the nervous system. Perhaps, from overlong town residence, or from mental troubles, the patient becomes irritable, depressed, nervous, excitable, with broken sleep, harassed by dreams. The ensuing general depression increases the headache. Now, bromide of potassium soothes the patient, and, by promoting refreshing sleep, strengthens the nervous system, and thus lessens the frequency and severity of the headaches. Bromide of potassium, moreover, is serviceable in the paroxysm itself, for it may produce several hours' sleep, from which the patient awakes free from headache.

The pain of megrim is situated in the fifth nerve; and, remembering how closely megrim is allied to neuralgia, and how useful hydrate of croton-chloral is in facial neuralgia, I have been induced to try this remedy for the seizures of megrim, and have found it useful in cases of which the following may be taken as a type.

A woman has been subject for years to nervous sick-headache; then, owing to some great trouble, or to excitement, fatigue, or flooding, or prolonged suckling, or most frequently at the change of life, the headache becomes much more severe. The headache is continuous for weeks, perhaps months, but is intensified greatly by fatigue, excitement, or at the catamenial period. If not actually continuous, the headache comes on daily, lasting, perhaps, for many hours, or several attacks may each day occur. The pain is often intense, and whereas, previously to the worst form of headache, the pain was probably limited to one bone, it now affects both, and perhaps the greater part of the head. The skin is generally very tender. There is also a sensation of bewilderment, or, as some term it, a stupid headache, and the patient often says she feels as if she should "go out of her mind". The sight may be dim, especially during the exacerbations of pain. Some patients of this class are very excitable and irritable, and are upset with the slightest noise. Nausea and even severe vomiting may occur with each exacerbation of the pain. Five grains of croton-chloral every three hours, or even oftener, will give in most cases considerable relief. I need hardly say, that the drug does not entirely free the patient from her attacks; but, in one or two days, the pain ceases to be continuous, then the attacks recur, but only once or twice a week, the interval gradually extending till an onset occurs only every week, then about every fortnight, or even longer, till the illness assumes its old type and periodicity. In some cases, a week's treatment suffices to bring back the headache to its original type of an attack once in three or four weeks. Then the croton-chloral appears to be far less serviceable, manifesting but slight effect on the periodical attacks. In many cases of ordinary periodical headache, the patients say that, in the milder forms, the drug distinctly lessens the severity and duration, but in the severer forms it is without effect, even when sickness is absent. In those cases accompanied by severe vomiting and retching, croton-chloral is useless, being speedily rejected.

Croton-chloral, I have found, will relieve the slight attacks experienced by some delicate and nervous women after any slight fatigue or excitement.

In the continuous sick headache just described, as the pain grows better so the cutaneous tenderness disappears. It seems to me that, in many instances, two kinds of headache coexist, one sometimes predominating, sometimes the other. One appears due to affection of the cutaneous nerves, and is generally accompanied by tenderness. Patients describe the other as a "stupid headache", "a feeling of bewilderment", "a bewildering headache". After the dispersion of the first form by croton-chloral, this stupid headache often continues, but may ordinarily be relieved by bromide of potassium. Indeed, in many cases, I have found it useful to combine these remedies.

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* Read before the Medical Section at the Annual Meeting of the British Medica Association in Norwich, August 1874.

CASE OF LYMPHO-SARCOMA, ASSOCIATED WITH LEUCOCYTHÆMIA.

By R. SHINGLETON SMITH, M.D.Lond., B.Sc.,
Physician to the Bristol Royal Infirmary.

William Pope, aged 31, married, was admitted into the Bristol Royal Infirmary, under the care of Dr. Beddoe, on July 2nd, 1873, with enlarged spleen. He had been a shoemaker in the army. In 1861, he went to the Mediterranean, and was laid up with "fever" whilst at Beyrout. During three months, he frequently had attacks of shivering, but they did not recur at regular periods. He had had feverish attacks every year at the spring and fall since that time. His general health continued fairly good till a month ago, when he noticed some enlargement and felt pain in the abdomen, which rendered him unable to continue his occupation as shoemaker.

On admission, he was noticed to be thin and markedly anæmic. He had a large abdominal tumour (manifestly spleen) occupying the left side of the abdomen, forwards to the middle line and below as far as the crest of the ilium, with a solid feel, dull on percussion, smooth on the surface, with a rounded edge in front. Liver-dulness was not increased, but the splenic dulness merged into that of the liver. He complained of some tenderness over the splenic tumour. Evening temperature was 99 degs., morning 98 degs. Tongue clean; appetite good. His urine was pale, acid, with fawn-coloured lithates, normal in quantity and free from albumen. The blood was found to contain a large excess of colourless corpuscles; they were about equal in number to the red blood-discs. In addition to the abdominal tumour, he had noticed a swelling over the sternum, which first manifested itself two months previously to his admission to the infirmary. At the time of the first examination, it was about the size of a walnut, situated over the cartilage of the first rib and the part of the sternum adjoining the right first rib; it was hard and painless, but the skin over it was of a dusky venous colour and firmly adherent; it could not be moved in the cellular tissue, and was very ill defined at its margin. It presented the character of an infiltration in the skin and other tissues over the bone and cartilage, rather than those of a defined new growth pushing aside the normal tissues of that region. There was no history of his having received any injury at the spot. No indications of syphilitic taint could be discovered. He was ordered quinine in five-grain doses twice a day, and a drachm of syrup of iodide of iron three times a day.

On August 30th, he was ordered iodide of potassium in twenty-grain doses three times daily, and this drug was continued in full doses for three weeks, but without any manifestation of improvement.

On September 12th, it was noted that the swelling over the sternum was increasing rapidly, and that an additional swelling had appeared in the left posterior triangle of the neck, over the clavicular insertion of the sterno-mastoid muscle, but not isolated, as a hard cord could be felt extending to it from the episternal growth, the skin between the two tumours being indurated by some interstitial infiltration.

On October 12th, the tumour over the sternum had much extended; there were general infiltration, gradual and progressive, of all the tissues around, and considerable increase in the depth of tissues between the skin and chest-wall; several hard cords could be felt in the skin around the growth; there was induration of the tissues around the base of the neck, and a hard mass could be felt in the posterior triangle of the right side similar to that on the left. The cutaneous veins around the tumour in the part still free from induration were in a varicose condition. The centre of the growth was of a dark red colour, and now covered with a hard dry scab, the result of spontaneous vesication. No nodules could be felt in either axilla. His general health was not much impaired; he was able to get about, to eat and sleep well. The spleen was smaller. He was still anæmic, but not losing flesh; the proportion of colourless corpuscles in the blood was increasing. At this date, he was sent into the country a few miles; but, soon after he reached his destination, the swelling over the sternum began to bleed, the blood seeming to come from small arteries in the skin which were opened by the cracking of the scab on the surface of the tumour. The hæmorrhage recurred frequently during the ensuing three or four weeks, but was stopped without much difficulty by torsion and pressure.

On October 22nd, he was well enough to be brought back to the infirmary. He had not been in bed during the whole time of his absence, but lay on a sofa, and did not dare to move for fear of hæmorrhage. He was much blanched from loss of blood, and the spleen was much smaller than before; but there was nothing cachectic in his aspect; his appetite continued good, and there was very little constitutional disturbance. His eyelids had become œdematous, and there was general puffiness of the face, with œdema of the right arm and hand. Some induration could be felt in the right axilla, and there was a brawny œdematous condition of the whole upper arm. The veins of the right side of the abdominal wall were becoming enlarged and tortuous. The skin immediately around the tumour was full of small veins in a varicose condition. The surface of the tumour was raw and secreted a thin serous discharge; there was no tendency towards sloughing, but merely superficial excoriation; the secretion drying caused scabs, which cracked frequently, and then hæmorrhage occurred in small arterial streams of pale watery blood. There was almost complete absence of sensation over the whole of the diseased tissues, contrasting strikingly with the intense pain from tension of inflammatory swelling.

October 25th.—Three days later, œdema of the left arm first came on.

October 30th.—There was now considerable swelling of face and both upper extremities, also enlargement of the epigastric veins, suggestive of pressure on the vena cava superior; but indurated masses could be felt in both axillæ, and the lower part of the neck was a hard brawny mass as high as the cricoid cartilage, feeling very much as if the tissues had all been infiltrated with plaster of Paris. There was now difficulty in swallowing, and his neck felt "tight and obstructed". The general varicose condition of the cutaneous veins on the right side of the thorax caused blue discolouration from the right axillary line to the median line, and from above the transverse line through the nipples down to the edge of the ribs.

October 31st.—There was some dyspnœa, which was relieved after copious bleeding from several points of the tumour at the same time, the blood being of very thin consistence, with little coagulating tendency.

November 3rd.—Death took place from exhaustion induced by repeated hæmorrhage.

Examination, twenty hours after death.—There was a large raw surface over the upper part of the sternum and the lower part of the neck, extending from the third ribs below as high as the cricoid cartilage, and from the middle of the clavicle on one side to a similar distance on the other side of the median line. A thin scab, consisting of dried blood and secretion, covered the whole of this surface; but this could be peeled off, leaving a cuticular surface underneath almost intact. There was no loss of tissue, no sloughing or indication of gangrene. Some enlargement of the cutaneous veins was still visible, but much less than during life. There was some œdematous infiltration of the tissues over the upper half of the abdomen and the lower part of the thorax, with considerable œdema of both upper extremities, but no œdema of the legs. On cutting into the tissues over the sternum, they were found to be much infiltrated, firm and unyielding to the touch, but easily torn and cut, one inch and a half in thickness at the middle line over the manubrium sterni, but much thicker opposite the middle of the clavicle. No separation could be traced between the skin and the tissues beneath, everything down to the bone being of uniform consistence, pale in colour, not exuding any juice from the cut surface. All the tissues of the neck were infiltrated in a similar way, and some rounded masses existed in each axilla, connected with the central growth by bands of indurated tissue. In the anterior mediastinum, there was a firm fibrous growth surrounding and compressing the innominate veins; this growth was in direct continuity with the infiltrated tissues in the neck, all the cellular tissues in this region being alike affected successively by a process of gradual infiltration from the primary source in the skin, the morbid process having proceeded from the skin towards the neck and thence behind the sternum and clavicles to the mediastinum. The sternum itself was slightly softened, but there was no thinning of the bone and no abnormality visible in its coarse structure. The lungs were not invaded by the morbid growth; there were no adhesions, and they were crepitant universally. The heart was soft; its fibres pale; its right ventricle full of pale, very slightly coherent clot, surrounded by an opalescent milky fluid. The blood everywhere was pale and watery, and most of the organs were markedly anæmic. The liver was enlarged, soft, slightly fatty. The spleen weighed four pounds. Several pale patches were noticeable of a more or less conical shape, the base being at the surface of the organ. The kidneys were pale, bloodless, but of normal size and structure. A small rounded fibroma was visible in one of the cones towards the apex, about the size of a pea. There was no enlargement of the lumbar or of any other glands, except those in the axilla.

The parts examined microscopically were: *a.* The superficial part of the growth over the sternum; *b.* The deep part of the growth; *c.* The tissues in the anterior mediastinum; *d.* The tissues in the right axilla; *e.* The spleen; *f.* The kidney.

The pathological peculiarity common to all the tissues of *a, b, c, d* was "an infiltration of the normal tissues of the part with numerous small cells imbedded in a faintly reticular stroma". The cells had for the most part an oval or rounded outline with a granular appearance, giving them some resemblance to pus-cells or colourless blood-corpuscles. Acetic acid disclosed the existence of one large nucleus or of two or three small ones. Almost the whole cell became coloured with carmine, so that the nuclei were not easily distinguishable from the cell-wall. With these nucleated cells were interspersed numerous small nuclei free, not indicating any cell-wall with acetic acid. The cells varied in size in the different parts. In the axillary growth, where there was least of the fibrous element, there the cells were largest; they ranged from the $\frac{1}{2000}$th to the $\frac{1}{5000}$th of an inch. Here and there, a small oil-globule was seen in the centre of the nucleus and two or more small nucleoli. There was no indication of anything resembling an *alveolar stroma*, such as exists in carcinoma; the cells were scattered about amongst the original elements of the parts involved without order or regularity, infiltrating and pushing aside the original tissues amongst which they were developed.

a and *b*. *The growth over the sternum* consisted of, first, a layer of epithelium, the normal cuticular layer of the epidermis, but much thickened, the epithelium dipping down into the tissues of the cutis in long lines between ridges of infiltrated tissue. Beneath this epithelial layer were bands of a fibrous tissue infiltrated sparingly with cells, the latter becoming more and more numerous till nothing but cells in a faintly reticular stroma was visible; below this was another fibrous layer, consisting of long bands of white fibrous tissue, with here and there streaks of cells running longitudinally between the fibrous bands. Immediately on the sternum was the fibrous periosteum, in which no cellular infiltration was discoverable. (Fig. 1.)

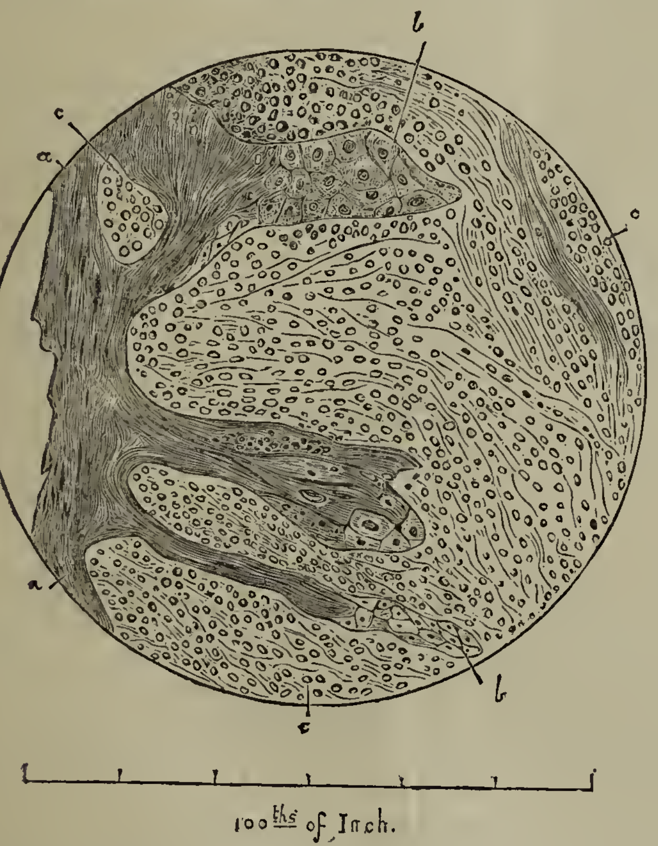
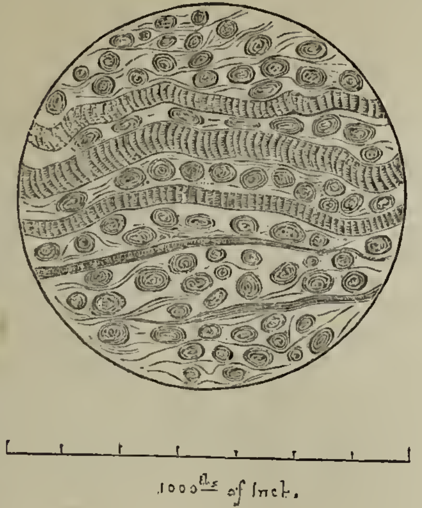


Fig. 1.—Section through the Cutaneous Tissues over the Sternum. *a*. Epithelial Layer. *b*. Epithelium dipping down into the Cutis. *c*. Fibrous Tissues of Cutis Infiltrated with Cells.

c. In the *anterior mediastinum*, the fibrous element was much more abundant than externally; but it was everywhere interspersed with the cell-growth. The cells were arranged in rows and masses between bundles of fibrous tissue and between bands of striated muscular fibre (*triangularis sterni*); the intermuscular tissues being infiltrated, the fibres themselves in a normal condition. (Fig. 2.)

d. In the *axillary growth*, the fibrous element was almost absent, the cells being packed together in a very firm stroma, separating easily from each other, larger in size than elsewhere, mostly rounded, but with a tendency to the spindle shape; the nuclei were distinct from the cell-wall, and easily coloured with carmine. On removing the cells from the tissue by washing and pencilling, a finely reticulated stroma remained, similar to that of a healthy lymphatic gland. (Fig. 3.)

e. *The spleen* contained cells of similar character to those of the other diseased tissues, infiltrating a fibrous network with fibrillary reticulations. Masses of dark red granules were seen infiltrating the fibrous stroma in patches, which appeared to be due to fatty degeneration commencing in the fibrous stroma of the organ.



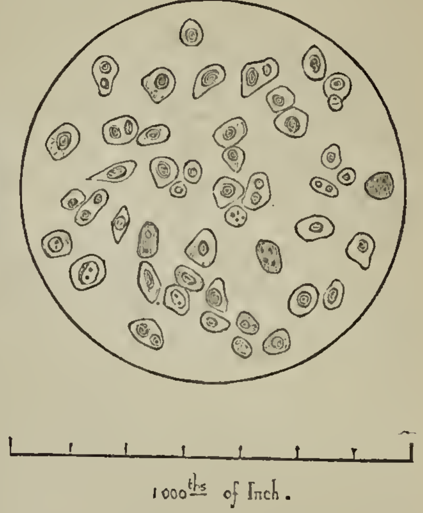


Fig. 2.—Section of Growth from the Anterior Mediastinum, showing transversely Striated Muscular Fibres (triangularis sterni) with new Growth infiltrating the Intermuscular Septa, Cells separating the Fibres.

Fig. 3.—Cells removed from a Section of the Axillary Growth, and treated with Acetic Acid.

f. The small white tumour visible in one of the cones of *the kidney* presented under the microscope a fibrous structure, but it had no definite sharply defined margin. Wasted tubes and shrivelled granular cells lining them were interspersed amongst the fibrous tissues towards the edge of the growth; but, internally, the tumour consisted entirely of white fibrous tissue. The kidney-structure outside the fibroma presented the normal characters.

REMARKS.—This patient seems to add another to the now long list of recorded cases of *lymphoid growths*; but this instance presents several points of peculiarity in which it differs from most of the other cases to be found in pathological records. The *Pathological Transactions* of recent years contain reports of numerous cases, called by different names, in which tumours of lymphatic origin have been found occupying different regions of the body, more frequently the liver, spleen, and lymphatic glands, and in which leucocythæmia has existed. Dr. Wilks, in the *Guy's Hospital Reports* for 1856, details a series of cases of "Hodgkin's disease", in which there was general hypertrophy of the lymphatic glands and asthenia, but in which there was no excess of the colourless corpuscles of the blood.

Dr. Murchison, in vol. xx of the *Pathological Transactions*, gives an account of a case in which "lymphatic new formations" were found in the liver, associated with enlargement of the spleen, but not accompanied by leukæmia. Professor Virchow, too, has observed that the enlargement of the glands in cases of "leukæmic tumours" is often unaccompanied by leukæmia. In vol. xxi of the *Transactions*, Dr. Tuckwell reports a case of enlargement of the "lymphatic glands, with the formation of peculiar morbid growths in the spleen and peritoneum". Dr. Dickinson reports another of "lymphoid growths in spleen", and Dr. Murchison another, which is also reported on by Dr. Burdon Sanderson, of "lymphadenoma". In vol. xx, page 409, of the *Transactions*, a case is reported by Dr. Hermann Beigel from notes taken by myself, and which Dr. Beigel calls "lepra tuberosa", presenting similar pathological conditions, but not associated with leukæmia. All these cases seem to present one pathological feature in common, the development of morbid tissue of similar histological character, but varying according to the locality in which it is developed, and associated with different symptoms according to the organ or organs affected, and running a very variable history. Dr. Sanderson seems to have first described the real character and affinities of the growth; and Messrs. Cornil and Ranvier agree with Dr. Sanderson in the belief that the morbid growth consists of the adenoid tissue of His. The name "lymphadenoma" is that given by Messrs. Cornil and Ranvier; but, inasmuch as the condition is not always associated with hypertrophy of the glands, the more general name of "lympho-sarcoma" may be preferable. The case reported presents peculiarities.

First, as regards *the locality* in which the disease commenced. The growth was first noticed as a hard lump beneath the skin over the sterno-clavicular joint, from which point as a centre the morbid process extended to all the tissues around, and ultimately affected the glands of the neighbourhood; but the glands themselves were not primarily affected, and did not become implicated afterwards, excepting by direct structural continuity with the focus of the disease.

Secondly, the absence of any tendency towards *suppuration*, sloughing, or gangrene was remarkable. There was no loss of tissue up to the time of death; vesication had occurred on the surface of the growth, but the part was still covered with epithelium. There was venous turgescence in all the infiltrated tissues, as indicated by the dark colour which they assumed; but microscopic examination did not indicate any marked vascularity, such as would have been the case if the development of new vessels had progressed *pari passu* with the growth of the disease. The original tissues became more and more swollen by a process of infiltration; but the new product did not manifest any tendency towards permanent organisation, nor did it manifest any retrograde tendencies.

Thirdly, the combination of a very rapidly growing lympho-sarcomatous growth with a condition of *leukæmia* is interesting. What is the relation of the two? That the one is not indispensable to the existence of the other, is shown by the numerous reported cases where lymphoid growths have been found, and the blood has presented no abnormality. The history of this case can leave no room for doubt as to which was the primary condition: the spleen was enlarged and leukæmia existed when the patient first came under observation, and at a time when the morbid growth was small. Growths of this kind must result from either—

a. Proliferation of the connective tissue-corpuscles.

b. Hyperplasia of adenoid tissue.

c. Development from the leucocytes of the blood which have escaped from the vessels, have retained their vitality, and have continued to reproduce similar cells in the part where they are found. It seems probable that, just as pus results from the escape of the colourless blood-corpuscles from the vessels, so a lymphoid growth may result from a similar cause by a slight modification in the nutritive changes which the cells undergo. Presuming, then, that it is possible for the tissues to become infiltrated with leucocytes from the blood, a morbid growth of lymphoid origin may be a direct, though not a necessary, result of leucocythæmia. The commencement of the process may be accidental; but, having once commenced, the leukæmic condition is likely to cause a very rapid growth in any part once affected. A lymphoid growth is likely, therefore, to be of short duration when associated with leucocythæmia, whereas, in other cases, the process may continue for several years. In the case of Pope, death took place in seven months from the first appearance of the morbid growth; but, in the clinically and histologically very similar case reported by Dr. Beigel as "lepra tuberosa", and in which the blood was in a normal condition, the patient lived for three years after the morbid growth first commenced.

The *cause of death* was asthenia, in consequence of frequently recurring hæmorrhage. The blood was thin, pale, and had little tendency to coagulate. If death had not resulted from this cause, it would have been impossible for him to survive the rapid spread of the morbid infiltration of his tissues which was going on; breathing and swallowing were becoming impaired from the infiltration of the tissues in the neck.

It would be interesting, in future cases of this kind, to note the appearance of the colourless corpuscles, particularly with regard to the activity or otherwise of their amœboid movements, also to compare the size of the leucocytes within the vessels with the cells which are found to infiltrate the diseased tissues.

RIGOR MORTIS IN AN INFANT AT BIRTH.

By J. ASHBURTON THOMPSON,
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DR. GRIGG has added two important observations to his first description of the above case; that the jaw again became fixed after extension had been made and the stiffness thereby removed, and that the legs were not so firmly set as the upper part of the body. These two facts, considered in relation to each other and the well known phenomena of *rigor mortis*, are all important, and may be admitted to establish the presence of that condition in the case described. It is much to be regretted that they were not included in the original report of it, which even now lacks the scarcely less important information as to time of examination, and of the return of stiffness to the forcibly extended muscles. With these additional facts at command, I am not surprised that Dr. Grigg declines to discuss his case with me.

Still, I must confess myself unable to share the conviction with which Dr. Grigg asserts his view; and it is possible that others of the Associates may feel sufficiently interested in the subject to make it worth while to point out the chief difficulties to be met with in maintaining it. In the first place, bearing in mind that rigidity invariably occurs in the bodies of individuals, whether they die within a few hours of birth or at the most advanced age, the extreme rarity with which it has been observed in the fœtus at birth is enough to raise a suspicion that the latter is of another kind. Those who wish to maintain its identity with the former, must account for its rareness; they must show that the one or two cases in which it has been detected differ in some essential particular from all the other cases in which it has not occurred; for, since the *rigor mortis* is the result of a physical property of a constituent of the muscular mass, it must always occur under similar circumstances. This difference cannot exist in the time of delivery as compared with the time of death; because all those obstetricians of experience who have failed to note rigidity of the fœtus have had the opportunity of inspecting bodies at every period, from a few minutes to a few weeks after death. Secondly, granting the liability of the still-born to cadaveric rigidity, on what ground is it to be anticipated that it may show itself earlier in those than in other bodies? Still, bearing in mind that it is the result of a physical change, must not the same conditions always modify it in the same way? Dr. Grigg himself supposes this fœtus to have lived within an hour and a half of birth, and there is every reason to regard this as the extreme period at which death may have occurred; for the hæmorrhage—or, in other words, the partial separation of the placenta—only began at that time. It died, in fact, of asphyxia; and that is a tedious mode of death *in utero*. What conditions are here to favour the speedy occurrence of cadaveric rigidity? Not the mode of death—that is one cause of its delay in the individual; nor the temperature to which the body was exposed, for a high temperature has no influence over the time at which the rigidity occurs.[*] So the precipitate occurrence of rigidity under circumstances unfavourable to the development of true *rigor mortis* affords a further ground for suspicion that it is rigidity of another kind.

I say "suspicion", because I ventured an opinion on grounds which I still think not unreasonable; and to better reason such an opinion will always yield. While, therefore, I now admit willingly that Dr. Grigg did observe *rigor mortis* in his case, I do not yet see clearly that it occurred *in utero*. Cadaveric spasm is fairly described by many writers—by Taylor among others; and it is a peculiarity of it worth noting in this connection that, whether the result of a final act of volition or of convulsive action, it persists until the supervention of cadaveric rigidity. Not, therefore, because the latter state was observed by Dr. Grigg under these apparently so adverse circumstances, was it the only state which had affected this fœtus.

ON PLEURITIC EFFUSION.

By JOHN RICHARD WARDELL, M.D., F.R.C.P.,
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[*Continued from p.* 615 *of last number.*]

THE first means to be had recourse to in order to ascertain the presence or otherwise of thoracic effusion is *inspection*. When the condition now considered obtains, careful observation notices less mobility in the affected side. There is generally, at the lower third, a greater or less degree of bulging, and the surface looks smooth and rounded. The intercostal spaces are less defined, and the intercostal muscles are often absolutely motionless. When the liquid has for a long time been effused, the intercostal muscles, from having been continuously stretched, lose their contractile power, become paralysed, flat, and then even tend to protrude. Albertini supposed, and Stokes believed, that such state denoted pus. A decomposing and debased fluid in contact with the wall of the chest, it has been thought, is sufficient to produce such flabby and flattened condition of these muscles. When the effusion is considerable, there is, as the result of left pleurisy, visible displacement of the heart; the apex-beat may be seen far away from its normal position, at or beyond the right edge of the sternum, or below the ensiform cartilage in the epigastric region. I saw one marked example of such dislocation of the heart not long ago, where the apex-beat was near the right nipple. Murchison says there is greater danger of fatal syncope when the effusion is in the left side. My own experience is certainly that there is more frequently irregular and feeble heart's action in left-sided effusion. Increase of motion in the sound side is often apparent. The patient, when asked, will tell you he feels the air go down deeper into the one side of his chest than the other. The side of effusion not only looks larger, but mensuration proves it to be larger. Fourteen out of the eighteen cases measured more on the diseased than the sound side. The increase, according to my own observations, seldom exceeds an inch; sometimes, when the cavity is almost filled, the excess will be an inch and a half. On the contrary, I have known a considerable amount of fluid collected when the measurement of the diseased side has been the same as the other. Much depends upon the yieldingness of the thoracic wall. In thin and debilitated people, the parietes are more prone to expand; and in those whose muscular systems are well developed, there is a less extensile tendency. In children, it should always be held in view there is a ready and early expansion of the chest-wall; in them, the white and elastic tissues are more developed, the cavity more easily distends, and there is less liability to visceral dislocation.

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[*] See Taylor's *Medical Jurisprudence*, 1865, p. 14; see also, at p. 13, the account of experiments by Sommer, who placed two children, born asphyxiated and still, in a tepid bath of from 90 deg. to 99 deg. *Rigor mortis* did not set in until between three and four hours.

In cases of empyema of long standing, inspection beholds a different condition of configuration and anatomical change. The most obvious of those alterations which have been effected is the greater or less degree of approximation of the costal edges. The intercostal and pectoral muscles become wasted; false membranes bind down the lung, and prevent its filling the cavity; and thus there is less resistance to the pressure of the external air, and hence the side becomes flattened and smaller. But this flattening and approximation of the ribs, and pressing inwards of the chest-walls, is in most cases conservative. Partial expansion of the lung and partial contraction of the thorax not unfrequently result in the obliteration of a vacuum and a secreting surface, and constitute the main means whereby nature will effect a cure. When this falling in of the chest-wall is considerable, the spine is apt to curve towards the affected side. I have known marked deformity thus produced, and long continue, when there has been a fistulous opening; but when the orifice closed, the inclination of the spine quite disappeared. I can well call to mind one case, that of a gentleman whose trunk, for three or four years, depended towards the side of his complaint, but who ultimately became erect. Laennec gives so characteristic a description of this change, that it may here be fitly quoted. "The subjects", he says, "have the appearance of being bent upon the affected side, even when they try to keep themselves erect. The affected side of the chest is evidently narrower; on measuring it with a cord, a difference of more than an inch is often found between it and the sound side. Its breadth is also diminished; the ribs are in closer than normal proximity to each other; the muscles, particularly the pectoralis major, are only one-half the size of those of the opposite side. The difference between the two sides is so striking, that, at a first glance, one would suppose that it is much greater than it is found to be on measuring. The vertebral column generally retains its straightness; but sometimes, however, it deviates a little, in consequence of the patient always leaning towards the affected side. This habit imparts to the mode of walking a peculiarity somewhat similar to limping." There is another reason why the sound side not only looks, but becomes actually, larger than its normal condition. When the breathing has to be mainly carried on by one lung, the efforts of a needed compensation gradually enlarge the pulmonary tissue. The minute bronchial ramifications and the air-cells become dilated, and the puerility of the breath-sound gives confirmation to this fact. The chest-wall by degrees accommodates itself to the pulmonary enlargement consequent upon a demanded excess of the respiratory function. I lately, in the instance of a person between thirty and forty years of age, who for many years had had a fistula consequent on empyema, and whose right thorax was much contracted, saw a marked illustration of this unsymmetrical alteration effected by the compensating power of the sound lung. His left thorax had become large and rounded; and at all points it was hyperresonant. Another instance of this peculiarity came before me. A man presented himself at the Infirmary whose left chest bore the traces of a fistula, which, it was reported, had for a very long time been open, and which for many years had been closed. The ribs were in absolute approximation; and thus half of the chest was so small and flattened, that it looked as if it had been crushed in. Scarcely any respiratory murmur could be heard, and that which could be heard was merely a little tubular breathing at the interscapular region. The right side was unsymmetrically large. His breath was good, and for years he had pursued an out-door occupation with little or no inconvenience from his ancient malady. This person, who was a labouring man, and who had necessarily been exposed to great excesses of temperature, had lived long and procured his livelihood by hard work, and looked fairly well. In fact, it might have been said of him, in more than the significative language which is often employed, that he lived by one lung.

In making our investigations in this complaint, *palpation* confers no little certitude in addition to the other physical signs. If the flat hand be placed first on the side of effusion, and then on the sound side, the absence of vocal fremitus in the one, and the distinct voice-thrill imparted in the other, supply facts of great significance. The rounded, smooth, even feel adds testimony to those impressions made by inspection. The flat hand, glided first over one thorax, then over the other, *feels* the difference. If the palmar surface of the index finger be applied horizontally, so as to coincide with an intercostal space, and repeated pressure be made, the sensation given to the finger will be that of pressing upon fluid. In thin and attenuated subjects, this means of diagnosis is of much value, more especially in children, whose chest-walls readily give way, and in cases of some standing, and where there is a large quantity of fluid. There are other instances in which the sense of touch supplies a knowledge of the condition of things within. When absorption is taking place, and the effusion has become considerably diminished, and roughened surfaces, the results of fibrinous deposition on the pulmonary and costal pleuræ, are brought into contact, a distinct thrill can often be perceived. This was eminently so in case No. 11. This sensation augurs well of recovery. Again, this thrill, but in less degree, can sometimes be felt when the opposing serous surfaces are at the first rendered tumid, and lymphic deposition is commencing. It soon, however, passes off, because increase of serous secretion interposes between two surfaces which normally glide with smoothness over each other, and ere long keeps them apart. If the palmar aspect of both hands be placed simultaneously on each chest-wall, and full inspiration be made, the difference of mobility will be very perceptible. In certain of the foregoing cases, such inequality of expansion was readily felt. In case No. 16, ascites and some anasarca were associated with the other conditions. Dr. Handfield Jones gives an instance of this dropsical complication in a young man aged nineteen, who had left pleuritic effusion and ascites at the same time, and from whose chest eighty ounces of fluid were withdrawn, and who made a full recovery (BRITISH MEDICAL JOURNAL, 1871, vol. i, page 139). I published, some time ago, the case of a child eleven years of age, who had thoracic effusion with considerable anasarca, and whose parents would not consent to tapping, but who fully recovered under the means taken to promote absorption.

On none of the physical signs can more reliance be placed than on *percussion*. The evidence which it bears of fluid is striking and distinctive. That dulness which tells of fluid is quite characteristic, and unlike the dulness elicited in lung-consolidation. It is more profound and absolute than in condensation. Its lines, when the chest is not full, are narrowly and nicely demarcated. At an earlier date of effusion, the movement of the trunk, as the rule, varies the dull line. In examples of long standing, this variableness may not obtain. When the liquid is not localised by adhesions and false membranes, and more especially at an early date of the disease, the dull line ascends to variable heights—that is, according to the quantity of effusion. I have known the dulness to reach as high as the clavicle, and up to the supraspinal fossa behind. When the fluid has thus largely accumulated, the sac is pressed laterally, and visceral dislocation in a marked manner supervenes. Sometimes the secretion is contained in septa; then the dull lines do not vary on trunk-movement; succussion gives no splash; nor is the dulness continuous from below upwards. In a case of long-standing empyema, which some time ago was under my care, there were dulness immediately below the clavicle, and some resonance below the dulness, and dulness at the base. And the full recovery of this case showed it did not proceed from tuberculosis; and the subclavicular dulness was altogether too absolute and characteristic for it to be attributed to solidification. When the effusion is in the left side, and in great amount, the diaphragm may be so pushed downward as to have its convexity below, and the spleen may be felt at the costal edge, or depending under the thoracic border. It is well to bear this in mind, or dulness so low might be regarded as produced by splenic enlargement. In left-sided effusion, the cardiac lines of dulness may be substernal, or distinctly traceable quite beyond the right sternal edge. Sometimes the cardiac dulness can be followed into the epigastrium. In case No. 11, the cardiac dulness was absent. It was evident that the organ was thrust inwards and backwards. When the right pleural sac is the seat of disease, the hepatic dull line is carried low down into the hypochondrium, and the epigastric and colonic resonances may become considerably lower in the abdomen than normal. Encephaloid tumour and large hydatid cyst in the liver may give marked dulness; but then the clinical history, and certain negative and positive facts, will be our guide. On referring to my note-book, I find the ample report of the case of a gentleman who for some time was under my care. He had very distinct dulness of the lower third of the left thorax, which was most proclaimed at the back. He had cough, could not lie on the right side, and only slight and distant tubular breathing could be heard over the dull region. Succussion gave no splash, nor did movement of the trunk vary the line of dulness. Remedies gave no relief. The respiration became affected, and the heart's action was much increased on exertion. He consulted three London physicians, but none could speak with certainty as to the ailment. In the course of time, the disease proved to be encephaloid cancer of the lung. Such instances, however, are most rare, and, as the rule, need not be regarded as a source of fallacy in diagnosis. I have observed that in children there is, as the rule, less visceral dislocation than in adults. The diaphragm is not so often driven downwards, nor is the heart thrust away so frequently from its position. Their yielding chest-walls expand, and percussion discovers but occasionally that the heart or liver is displaced. When recovery from absorption takes place, the percussion-dulness of the hepatic edge and the resonant sound of the stomach ascend to a higher level. If the heart have been pushed from its place, the pleximeter indicates its gradual recession; and the same fact obtains when the spleen has descended. When paracentesis has been employed, it is curious to observe how soon dislocated viscera right themselves. I have known the heart, on some occasions, fall back to its position before the whole of the fluid had been withdrawn; and the same occurred when the spleen had been forced from its site. Dulness may, and often does, remain in the thorax long after either absorption or the withdrawal of the fluid. Fibrogenic deposits may be thrown out in considerable quantity, false membranes be formed, and adhesion of the pulmonary surface to the costal pleura may eventuate, and thus a certain amount of dulness, though not of that absolute character produced by fluid, will afterwards be permanently discoverable. When such is the case, its presence is not of significance.

That this physical sign was the constant accompaniment of the examples which have been given to the reader, is clearly seen. In No. 1, there was marked dulness up to the angle of the scapula, and the line of dulness varied on the movement of the trunk. I examined this lady after her recovery, and resonance was quite restored. In No. 2, there was dulness at the lower two-thirds. In No. 3, there was that absolute dulness denoting fluid. No. 4 had great dulness over the lower two-thirds of the left back. No. 5 had three-fourths of the left chest dull, and when he was discharged the dulness had disappeared. No. 6 had unusual dulness over the left thorax. In No. 7 this sign was most marked; and, in No. 8, the same condition obtained. No. 9 had much dulness. In No. 10, the same sign was distinct. In No. 11, the dulness was absolute. In No. 12, the dulness at the right back ascended to the scapular angle. In No. 13, percussion gave that absolute dead sound which is alone elicited when there is fluid. In No. 14, the dulness was evident up to the spine of the scapula. In No. 15, the dulness was discovered at the left inferior back. In No. 16, the utter loss of resonance over the region of the effusion was a cardinal sign. In Nos. 17 and 18, the dull, dead sound, given by percussion, left no sort of doubt as to the existence of fluid. It is thus seen, that the condition in question is never absent in effusions; in fact, it is one of the most commonplace laws in physics, that liquid thus placed, should not, when percussion is made over its site, emit sound. It is, as I have said, the most reliable of all the physical signs.

The next most potent means whereby we ascertain the presence of effusion is *auscultation*. In all the previously given cases, it has been shown how the stethoscopic signs bore out the inferences to be deduced by the other modes of diagnosis. In each instance, bronchial breathing, and bronchophony at the spinal hollow; and faintness, or most generally abolition, of the respiratory murmur over the dull regions, were the significant facts elicited. In some of the examples, there was scarcely any tubular blowing at all; in fact, the displacement of the lung into the spinal fossa, and the great pressure exerted by the fluids, doubtless, so compressed not only the pulmonary tissues, but the bronchial tubes, as to exclude the air. Some time ago, a young woman was admitted into the infirmary, whose left chest was dull to an extreme degree at every point, nor could the least breath-sound be heard at any part. Paracentesis was decided upon. She died, however, suddenly, in the night previous to the day on which the operation was to have been performed. Inspection showed that no air whatever had entered the lung. It was carnified, bound close down to the spine, and thus its functions became absolutely and entirely abolished. In the earlier stages of effusion, I have always first noticed tubular breathing, and bronchophonic cough and voice-sounds. These vary in the degree of their intensity according to the amount and continuance of effusion. In the more advanced conditions, and in exceptional cases, amphoric respiration, gurgling and cavernous voice, are well recognised when pulmonary excavations might be thought of; but concomitant symptoms will be our guide. Béhier is of opinion that amphoric breathing is only heard when the indurated lung is compressed against the larger bronchial tubes. It would be well to bear in mind that, in some cases, mucus in the large tubes will produce gurgling. It is said by Trousseau, that amphoric sounds may be produced when the effusion is inconsiderable; and it may also be said that the pathological states which give rise to amphoric sounds are by no means uniform. In effusion, there is no crepitant rhonchus; and the blowing respiration is of the diffused quality, deep, and best heard at the spinal hollow, and sometimes alone heard at the last named place. When recovery is going on, and the lung is expanding, the tubular breathing becomes less pronounced, and coarse crepitation is heard at points where before there had been only silence. In the sound side, the stethoscope recognises very customary and characteristic changes. The breath-sound becomes loud and puerile, because increase of function is thrown upon the lung which can perform its office. Sometimes the respiratory murmur becomes so intensified, that it can be heard on the effusion side of the spine—a fact which was first pointed out to me by Dr. C. J. B. Williams many years ago. In chronic cases of empyema, it is well not to lose sight of what may thus occur. In most of the chronic cases puerility is strikingly proclaimed. In long standing empyema, the sound lung gradually relinquishes its right to that expression—it becomes hypertrophous and enphysematous. Excess of action is followed by excess of volume; just as mitral obstruction gives rise to ventricular enlargement, or as the liver grows large in tropical climates. On *post mortem* inspection after protracted empyema, I have seen the compensating lung so large, that it seemed to be too big for its proper cavity. Walshe remarks that a lung in this state, instead of receding when the chest is opened after death, may actually protrude through the opening.

In Nos. 1, 2, 3, 4, and 5, the main points elicited by the stethoscope were, the abolition of the respiratory murmur, and the presence of bronchophonic voice over the dull area. As recovery gradually ensued, coarse crepitation became audible at points where previously no air entered, and by degrees the normal vesicular murmur became re-established over the greater part of the space before occupied by the effusion. In No. 6, the breath-sound was abolished generally throughout the left thorax. Even at the subclavicular space, it could not be recognised; and, above the clavicle, only an indistinct tubular blowing could be heard. In the right chest, supplementary sounds were at once audible; everywhere over that side there was puerility. The inference could only be, that the cavity of the affected side contained a large quantity of fluid; and this opinion I had, on my first examination of this patient, expressed with much certainty; nor did the fruitless attempts which were made, by the introduction of the catheter, to draw it off, influence this conviction. As before related, inspection proved the existence of nearly two quarts of straw-coloured liquid; and this too was present, not with a lung collapsed and driven upwards and backwards into the spinal hollow, but with a lung consolidated and adherent to the chest-wall. Under such circumstances, fluid of that quantity could not do otherwise than fill the chest. When the pulmonary tissue becomes so compressed as to resemble a mere membrane, there is then far greater capacity for effusion than in instances like that of this patient, in which there was such an abundance of tuberculisation. The tubercular deposit, and the adventitious products thrown out by a low form of inflammation, solidified, and in a great extent maintained the configuration and volume of the organ, and thus prevented that compression which is so notable in empyema. In cases No. 7 and No. 14, it is extremely probable that much the same condition of things obtained as in No. 6. The woman Lawrence had a phthisical aspect, and the man referred to had evidently tubercular mischief at the right apex. In case No. 9, the air did not descend into more than the lower third of the left chest; and, externally, the auscultatory examination traced abolished breath-sounds up to, and until confounded with, the increased extent of cardiac dulness. In the young gentleman No. 10, only tubular breathing was heard at the lower half; and, as he progressed towards recovery, it was matter of much diagnostic and pathological interest to watch the steady increase of coarse crepitation, and afterwards of vesicular breathing, almost to the base. In No. 11, the stethoscopic signs were in close accord with the facts elicited by palpation and percussion. Tubular breathing, without admixture of vesicular sound, added to the testimony of many other facts which told the tale of long standing lesion with abundant effusion. In nice correlation with the improvement of the stethoscopic signs, there was less dyspnœa, less feeling of fatigue, fewer tendencies to fainting, and greater ability to ascend steps and lie on either side. In case No. 12—the pale young woman admitted into the Infirmary—as the absorption went on, the auscultatory sounds improved. In the woman No. 13, with regard to the stethoscopic indications, the same remark might be applied. In the man No. 14, auscultation gave evidence of much interest. By two operations, no less than 153 ounces of fluid were withdrawn; and, as reported, on each occasion much comfort followed the evacuation. Not only did the vesicular murmur return over a considerable space at the affected side, but the moist crepitations at the right apex at length almost disappeared. The relief afforded by paracentesis seemed to have a curative tendency at the top of the other lung, which, when I first saw him, was not only dull, but had evidently begun to break up. The practical conclusion, then, deducible, is that, in effusions which we know to be of tubercular origin, paracentesis becomes warrantable merely with a view to the mitigation of existent symptoms. In the young gentleman No. 16, there were all the stethoscopic signs above in repetition noticed as so indicative of effusion. Dr. Day, Mr. Bisshopp, and myself, at our examinations after the two operations, were much interested at the descent of respiratory sound as the more general symptoms of amendment became manifest. When he had made what might be regarded a full recovery, and when I examined him six months after the operation, only a patch of coarse crepitation, and at the very base, existed; and this, doubtless, was soon to be succeeded by the normal vesicular sounds. This patient, at this date, is without a trace of his malady. In No. 17, in the instance of empyema in the little boy, the auscultatory sounds were quite in accordance with the other conditions of long standing compression of the pulmonary tissue. I was informed several months ago by Mr. Manser that the breathing was then heard low down, and that the little patient gave every promise of full recovery. In the last named example, absorption was followed by the proper puerile respiration, and full recovery.

It is always important in these cases to carefully note the cardiac sounds; and, in those instances in which thoracentesis is contemplated, it is absolutely imperative, as the trocar can never safely be introduced without a knowledge of the exact position of the heart. In eight of the above recorded examples, this organ was pushed under or more or less beyond the right edge of the sternum. In No. 6, the cardiac sounds were heard in greatest intensity at the right sternal edge; here there was no risk of entering the pericardium when the left thorax was pierced. In No. 7, the apex-beat was felt, and the sounds were best heard beyond the right sternal border. In No. 11, the cardiac sounds were but very faintly heard; and I concurred with Dr. Fuller and Mr. Rix that, in such a case, the greatest caution was needed in the introduction of the trocar. The side of effusion was most carefully auscultated, lest the pericardium should be wounded. In case No. 14, the heart could be felt and most distinctly heard beneath the right nipple. In No. 16, the cardiac sounds were intensified towards the right. Displacement of the heart, and the twisting of the aorta and large vessels, may give rise to morbid sounds, which cease to be heard when, by absorption or operation, the fluid has been removed and the organ has resumed its normal position. When orthopnœa is added to other of the graver symptoms, the heart-sounds are generally pronounced feebly, consequent upon the mechanical pressure exerted upon this organ or the great vessels. Auscultation in such cases gives information of the greatest consequence. The removal of the apex-beat and the greatest intensity of the sounds are by far most marked in left-sided effusion. In antero-posterior expansion, the cardiac sounds become feeble or lost. The auscultatory signs, not only of the lungs, but of the heart, are necessarily varied by a variety of phenomena. Pericardial effusion may be coexistent with pleural effusion, as in case No. 9. Cohesions, empyema, costal approximation, long duration of the disease, and other circumstances, must very naturally modify cardiac action. In some cases of left pleurisy, the cardiac sounds are best heard to the left of the nipple, and, in exceptional instances, even below the axilla.

In some cases, a considerable amount of fluid may be contained in the pleural sac; and for some time this may remain, without giving rise to any marked symptoms, or to any great inconvenience to the patient. A person under such circumstances may look tolerably well, have a fair appetite, and even pursue his occupation; nor may there be much fever, pain, or local distress. Bronchitis, pneumonia, and phthisis present objective symptoms which at once lead us to suspect the true nature of the malady; but it is not so in certain low and masked forms of pleuritic effusion. In the last named affection, a strict attention to the physical signs is of the greatest importance; and it has repeatedly come to my observation that a neglect of the physical signs has led to the gravest mistakes. A patient will present himself under the idea that his case is by no means serious. He does not, and has not, suffered much. The absence of acute pain, and not having experienced any marked attack of illness, favours the supposition that his complaint is not of great consequence; and it has most probably been referred to cold or some undefined temporary loss of health. He tells you, however, of his having for some time had a cough; that his breathing becomes accelerated on increased exertion, and that he cannot lie on either side; and, on being interrogated, he admits the loss of flesh and strength. The facial indication confirms our suspicion. If, in addition, there be languor of the circulation, as evinced by cold extremities and an irregular pulse, and a tendency to syncope, very conclusive evidence is then presented. Effusion into the pleural cavity cannot, however, remain there for an indefinite period harmlessly. Its mechanical disturbance, and the other derangements to which it gives rise, fail not sooner or later to become manifest. Hasse says sometimes the effusion may prove perilous or fatal through its character or amount, without the appearance of such symptoms as to excite alarm. Amongst the other morbid conditions produced, a febrile temperature is generated; the digestive organs become impaired, and a diminished vitalism is the consequence. Claude Bernard has beautifully shown that, when digestion is not normally carried on, the gastric secretions do not retain their physiological properties, and are unequal to those functions in vital chemistry which are so necessary to the process of chymification; hence we see one cause why it is that fever in pleuritic effusion becomes of the hectic character, and is followed by exhaustion. In chronic cases, flatulent dyspepsia is most common, and the patient is usually troubled with acid eructations. In empyema, I have generally noticed these conditions as permanent symptoms.

It is a fact of practical importance, and one which should always be borne in mind, that thoracic effusion is sometimes thrown out with great rapidity, and even a few hours will be long enough for a large amount of liquid to collect. Its sudden presence in the sac generally produces much systemic disturbance; but, as the mediastinum and the diaphragm give way, and as the intercostals become stretched, the feelings of dyspnœa and distress become mitigated; the organism is rendered more tolerant of, and accommodates itself to, the extraneous product. I have been astonished at the celerity with which these collections form in children, which peculiarity may, perhaps, be accounted for by the quicker circulation and the greater exudative tendency which there is in children than in adults. In all the acute affections of childhood, if there be any dyspnœa or signs of pulmonary disturbance, physical examination of the chest should never be omitted. When effusion occurs in children, it is nearly always as the complication or sequel of some other form of disease. Bronchitis, pneumonia, or pleuropneumonia, are the frequent associations or forerunners of this condition. It forms the not uncommon sequel in eruptive fevers, when the liquid is nearly always sero-purulent or purulent. The younger the child, the less chance is there of recovery in this affection. In the acute empyema of children, pus may be secreted from the outset of the inflammatory symptoms. In children, the effusive tendency is more prone to extend to the pericardium than in the adult; and a fatal termination in these little patients sometimes comes on in sudden and unexpected manner.

[*To be continued.*]

ARSENICAL POISONING BY ARTICLES OF DRESS.

By R. R. CHEYNE, F.R.C.S.Eng., Nottingham Place.

THE following case of arsenical poisoning, in a little relative of my own, from wearing a ruby-coloured merino tunic, occurs *àpropos* to give emphasis to the remarks in the JOURNAL upon the poisonous nature of red wall-papers, founded upon an article in the *Gazette des Hôpitaux*. The attention to which this case is entitled, as a warning against the too confident use of articles of clothing dyed red with coralline dye, will be rendered evident by the concise report of the analysis made by Dr. Dupré of the Westminster Hospital for the purpose of investigation.

Master T. B. M., aged 2 years and 4 months, after some indications of disorder and a few restless nights, vomited several times on October 1st last, and had slight diarrhœa. Vomiting after food continued until the 6th, when it ceased until the 13th. During the same period, there existed depression, anorexia, now and then tremor, or a kind of quivering of the muscles, once a screaming fit in the night (as if from fright), and a state of extreme irritability, with frequent micturition. The degree of illness in the child thus far seemed to be out of all proportion to any discoverable local lesion. On the sixth of the month, however (the day on which the vomiting subsided), he awoke agitated, and, after a warm bath, a rubeoloid rash appeared, succeeded by a cough, which day by day became more troublesome, being most severe for an hour, between 3 and 6 A.M. The eruption was capricious as to its extent and duration, leaving, when absent, a mottled look of the skin, which was also stained by the red dye drawn out of the tunic by the very profuse perspiration characterising the disorder. It was this latter circumstance, with the fact, now observed, of the recurrence of the vomiting not long after the tunic (which had been left off for several days) was again worn, that led me to the discovery of the real wolf in lamb's clothing with which I had to contend. Upon inquiry, I learnt that this ruby-coloured merino frock was first put on on September 24th, and was laid aside on October 6th, when the little patient was strictly confined to bed. For the week following, there was exemption from sickness; and then (two days after the use of the tunic was resumed) the stomach again rejected food. It seemed likely, therefore, that the gastric disturbance was in some way excited by wearing that particular garment; and if, as I imagined, the existence of arsenic therein could be proved, the case and its treatment would become plain. Of course, the needed proof was now sought, the merino in the process being committed to destruction.

Decided amelioration of the symptoms followed at once. The vomiting did not recur, the cough subsided, the eruption, less diffused, took the form of patches of erythema, and the perspiration soon diminished. Yet the progress towards recovery was very slow. At the end of the month, there was still but little power of taking food, and an appearance of cachexia, in marked contrast to the fair condition of health presented by the child upon his return from the country a few weeks since. It is to be hoped that a careful tonic treatment, and a stay for some time at the seaside, may do much to repair the mischief and restore the constitution.

It will be noticed that this case did not present all the symptoms sometimes observed (Taylor's *Medical Jurisprudence*, page 111) in similar instances of arsenical poisoning. Thus there was no conjunctival irritation, etc. The salient points of the case were depression, sickness, anorexia, profuse perspiration, eruption, cough, nervous irritability, and frequent micturition, leading to and leaving a cachectic state of constitution.

In the following report of Dr. Dupré, reference is made to a cerise-coloured cashmere frock, as well as to the one now in question, of a ruby colour. The former had been left off last May, and, therefore, has no relation to the present inquiry. Still it may be supposed that, before the washings to which it had been subjected, it, too, contained more than mere traces of arsenic.

Dr. Dupré's report is as follows.

"I have carefully examined the little frocks you brought to me some time since, with the following results. Both frocks are dyed with one of the red coal-tar colours; this particular one is called coralline, I believe. The colour of one frock was tolerably fresh and dark; from the other frock, a great part of the colour had apparently been washed out. The darker one contains 0.048 grain of arsenious acid per square foot. The paler one also contains arsenic, but in excessively minute traces only. (Signed) A. Dupré."

The evidence I have adduced in the above case clearly, I think, confirms the statement that red, no less than green, colours in articles of dress may contain arsenic, an arsenical mordant being often used to fix the coralline dye, and as such are highly prejudicial (*Gazette des Hôpitaux*).

Green and (it thus appears) red wall-papers, artificial flowers, linings of caps, cakes, sweetmeats, covered with arsenical green, or packed in arsenical paper, French plums, figs, and other fruits, similarly packed, and other miscellaneous articles, have all been sources of arsenical poisoning. It is also well known that the process of manufacture has a most unwholesome influence, and is fraught with danger to those employed. The question, then, may, with all earnestness, be asked, Are the facts of the great competition in trade and the excessive desire for rich and beautiful colours in the decoration of our houses, etc., sufficient reasons for disregarding the painful lessons of experience? Undoubtedly, there is often great ignorance, if not criminal recklessness, displayed upon this very important subject.

OBSTETRIC MEMORANDA.

THE USE OF THE TOW-PESSARY.

Having read the communication of Dr. Copeman on the above subject in the number of the British Medical Journal for October 24th, 1874, and having had some experience in the use of the tow-pessary, I venture to give a few remarks, in accordance with the wish he has expressed that, "if others try it, they will record their experience in the Journal".

I have long used a cotton-wool pessary, both in my private and in my hospital practice, with great comfort and advantage to my patients; indeed, in cases of retroversion and retroflexion, I now never employ any other kind of supporter. However, I must take exception to the following words of Dr. Copeman. "The instrument to which I specially allude is the pessary, of which there is now such an infinite variety; perhaps proving that, where so many different ones are contrived, many of them have been found of little value. My experience of them certainly leads me to the conclusion that but few of them are to be depended upon, and that some of them are quite useless." The writer evidently finds fault with the instruments. This I hardly think fair to the several pessaries; and, as I have devised no special instrument, I speak without bias when I say the instrument may be perfect as a pessary, needing only to be suitably adapted. Of necessity there must be "an infinite variety of pessaries", since the vaginæ of an "infinite" number of women vary much. Indeed, I believe the variety to be so great, that each vagina has to be studied carefully in its bearings and relations—in fact, in its every aspect—in order to properly fit a pessary. As the ophthalmic surgeon has with the nicest care—even to the use of decimals in his numbers—to adapt by means of glasses the focus of the vision of his patient, so must it be with the pessary; and it was for this reason I cast about me to find one which, without all this delicate nicety of application being required, would mould itself to the vagina into which it might be introduced, and of itself, as it were, fulfil all expected of it and required. For this, the cotton-wool is in many respects the best agent. In order to save expense, I recently tried, in the hospital, tow instead of cotton-wool, and I shall record my experience of it.

I must first state that I did not use "the piece of linen greased on the outside to facilitate introduction", but simply the tow itself, well larded over its surface; the Ferguson speculum being introduced, and the tow pushed through it by means of a long curved forceps, sufficient being used to meet the wants, as I considered, of each particular case. The power of adaptation to the vagina seemed to me to be less than that of the cotton-wool; and the patients complained of discomfort—some of heat and smarting, others of actual pain, not before felt, when I employed the wool.

I allowed the tow, if it would, to remain in for two or three days; and, on withdrawing it, noticed the pain it gave, especially if the speculum were not used. And, on examining the os, the vaginal portion of the cervix uteri, and the vagina itself, I found them, especially the two former, scarlet; so red from excessive congestion were they. In some instances, the engorgement ran on so far that, as I withdrew the tow, the overfull blood-vessels gave way—the compression from the tow being removed—and the blood flowed from them just as if leeches had been applied, or the scarificator been used.

Satisfied in my own mind that this agent was a powerful irritant to the delicate mucous membrane, and was doing my patients harm, I discarded it at once, and have not since tried it, as it did not occur to me that it would answer better swathed in the greased linen in the manner Dr. Copeman has described. This plan, I must say, did enter my mind, but was rejected, because, theorising, I imagined the linen would curtail the expansile power of the tow and its capability of adapting itself to the vagina, and, when greased, would facilitate its slipping from the vagina, and would, moreover, require to be renewed with each fresh dressing, so that nothing was gained on the score of economy. Again, I found in many cases that the tow became rolled into a hard ball, and was forced from its berth *in vaginâ* by the efforts in defæcation and even in emptying the bladder. For these reasons, I have returned to the cotton-wool; but, as Dr. Copeman speaks so highly of the tow covered with the greased linen, I shall try his method, and report the result.

Better than even the simple cotton-wool pessary, is the cotton-wool soaked in glycerine or in glycerine-water; for it may be retained *in situ* much longer, owing to the deodorant properties of the glycerine. Moreover, in cases of congestion of the uterus and vagina, the blood-vessels are depleted, the serum being withdrawn by the process of exosmosis; and, if any abrasion or ulceration be present, the reparative processes are brought into play, and the mischief remedied.

G. de Gorrequer Griffith, L.R.C.P.Lond., Senior Physician to the Hospital for Women and Children, Pimlico.

THE INDUCTION OF PREMATURE LABOUR.

I very much doubt whether another reader of my last communication, On the Induction of Premature Labour, besides Dr. Swayne, could be found who would assert that I had compared my two cases with his case (No. 11). No such comparison was made or intended.

Dr. Swayne has laid great stress as to the safety of the child in the difference between the "old fashioned method" and the new. As briefly as possible, I will give the result of Dr. Swayne's twenty cases as I find them in the summary of his cases in the Journal of August 8th.

Dr. Swayne gives three cases in which the "old fashioned method" of treatment was employed, two of which recovered and one died. Of the remaining seventeen cases under the new method, five recovered and twelve died. If, from his own statistics, Dr. Swayne is satisfied that the safety of the child is greater under the use of the new method than the "old fashioned method", I am not, but I am inclined to believe that Dr. Barnes's bags are superior to either of the two methods; and, should I ever be called on again to induce premature labour, that would be the method I should employ, certainly not sponge or tangle-tents.

Dr. Swayne complains of unfair treatment on my part towards him. If I have in any way been unfair, I can truly say I am sorry for it, and assure him it was not my intention to be so, but that I only wished, if possible, to arrive at the best method of inducing premature labour.

STEPHEN CLOGG, Looe.

P.S.—At the end of the last paragraph but one in my paper in the JOURNAL of October 24th, the word labour should be left out, and the clause should stand thus: "when compared to the tediousness of the sixteen days under the sponge-tent, tangle-tent, etc., method of treatment".

THERAPEUTIC MEMORANDA.

EMPLOYMENT OF BELLADONNA IN CASES OF EXCESSIVE PERSPIRATION.

DR. SYDNEY RINGER, in his *Therapeutics*, points out the value of belladonna in checking excessive perspiration. A member of our profession lately called my attention to some cases of his in which the internal administration of atropia in very small doses controlled heavy sweating in a most striking manner. The following is my clinical experience of the therapeutic value of belladonna in this affection.

CASE I.—Alexander McD., aged 24, suffered from debility and dyspepsia, with suspicion of phthisical element. On September 24th, 1874, he had ten minims of tincture of belladonna at bedtime in a draught. On the 25th, he stated that the perspiration was not checked, but he did not feel so weak. He was ordered to have ten-minim doses three times a day. On the 26th, the perspiration was reported to be checked. The medicine was repeated. On the 27th, he perspired a little. The dose was increased to fifteen minims thrice daily. On the 28th, he had perspired heavily the previous night. He was ordered to have twenty minims three times a day. On the 29th, he had no perspiration. The medicine was discontinued.

CASE II.—Donald McK., aged 21—a decided case of phthisis—on September 24th got a draught containing ten minims of tincture of belladonna. On the 25th, perspiration occurred, but was not nearly so heavy. The draught was repeated. On the 26th, there was only slight perspiration this morning. The draught was repeated. On the 27th, perspiration was almost quite checked. There was only slight moisture this morning. The dose was increased to fifteen minims. On the 28th, he perspired more last night. He was ordered twenty minims of tincture of belladonna in a draught. (The nurse stated that the ward was unusually warm on the night of the 28th.) On the 29th, he had no perspiration. The medicine was discontinued.

CASE III.—Catherine McL., aged 45, suffering from debility (with suspicion of phthisical element), on September 25th had a draught containing ten minims of tincture of belladonna, to be taken at bedtime, to check perspiration. On the 26th, the patient said that the medicine checked the perspiration, and her menses also. The medicine was discontinued.

JAMES W. ALLAN, M.B., C.M., Belford Hospital,
Fort William, N.B.

TREATMENT OF HYDROPHOBIA.

IN the JOURNAL of October 31st is a quotation from a letter written by Mr. C. L. Prince, that "he has lately obtained information respecting two cases of hydrophobia successfully treated by the Groombridge medicine". Mr. Prince had, in a previous letter to the JOURNAL of May 16th, stated that he had reported twenty cases of persons who had been bitten by mad dogs, eighteen of whom had experienced no ill effects from the bite after taking this medicine; but that the two who did not take it died of hydrophobia. At the Uckfield meeting of the East Sussex District Branch of the Association, many doubts were expressed as to the value of the evidence offered by Mr. Prince in favour of this medicine; and I ventured to express my scepticism as to the value of the remedy, and also of the advantage likely to follow the purchase of this nostrum. I must now, at the risk, perhaps, of being thought uncourteous, ask Mr. Prince to remember a favourite maxim of John Hunter's: "Before making a statement, be sure of your facts." In relation to the last case reported as one of "hydrophobia cured", this is the case of "Mary Garrett, of Hartfield, in Sussex". This case occurred more than forty years ago, and I can vouch for the accuracy of the following statement. When a child about ten years old, Mary Garrett was bitten in the arm by a dog *supposed* to be mad. The wound was excised and cauterised by my late father; and, by desire of her friends, she also took the Groombridge remedy. *She never had a symptom of hydrophobia* or any other ailment at that time. I have more than once heard the history of this case, both from my late father and the friends of Mary Garrett, who are still resident in this village; and it is the more strongly impressed on my memory by a curious circumstance—viz., that Mary Garrett, before her marriage, consulted me about a tumour in her mouth, which some ignorant people supposed to have been caused by the bite of the dog. It proved to be a small epulis, which I successfully removed.

Mr. Prince has lately purchased the Groombridge recipe for the large sum of £100, and is naturally anxious that it should prove to be a valuable remedy, and asks the profession to give it a "patient and exhaustive trial". As it is no longer a secret remedy, the public will, I fear, have lost faith in its efficacy; and the profession will, I think, as a body, believe as I do, that the medical treatment of hydrophobia has in every case hitherto proved unavailing, and that the few recorded cases of recovery have a veil of obscurity hanging over them sufficient to damp our confidence in any medicine that has yet been tried.

As a prophylactic, the liverwort, box, staggerwort, and other herbs mentioned, have been in use from a very remote period, and are noticed by Hippocrates, Galen, and Celsus; and Sir Thomas Watson, in his valuable *Lectures*, says that "even now scarce a year elapses but some correspondent of the newspapers, whose philanthropy is more conspicuous than his judgment or his knowledge, recommends a new and infallible preventive".

WILLIAM WALLIS, M.R.C.S., etc., Hartfield.

CLINICAL MEMORANDA.

POISONING BY MUSHROOMS.

IT is so seldom that we hear of poisoning by the true meadow-mushroom—*Agaricus Campestris*—that it would be deeply interesting to those who have studied fungology to know whether, in the cases referred to, either Dr. Drummond or Mr. Sedgwick examined a specimen of the fungus eaten; because, in the absence of such scrutiny, I rather hesitate to deem it possible that a true *Agaricus Campestris* in a healthy condition is capable of poisoning. It may have been eaten when in a semi-putrid state, or in immoderate quantity. Under any such condition, what food would not induce irritation? As there are upwards of six hundred species belonging to the mushroom order, it is not improbable that a non-edible variety had been eaten in each case. There are several varieties of the common meadow-mushroom, differing in appearance; so also there are many non-edible or poisonous kinds, easily mistaken by a careless observer, although they are in reality totally different from the former—such, for instance, amongst the poisonous kinds, as the *Agaricus Phalloides* and *Agaricus Vermis*. It is almost impossible, in seeking for edible mushrooms, for the uninitiated to incur danger, or for tyros in this science to be misled, if they observe the golden rule which teaches us to reject all kinds of fungi that are disagreeable to both taste and smell, or, in other words, to select those possessing the well known agreeable aroma and flavour.

ROBERT CUFFE, M.R.C.S.Eng., Woodhall Spa.

THE PHYSIOLOGICAL AND CHEMICAL ACTION OF ALCOHOL.

As one of the few who wage war against the absurd practices of many of our profession in the administration of alcohol, I cannot but admire the bold manner in which Mr. Lucas denounces the unscientific practices of the many; but, to my mind, some of his statements are loose and inaccurate. He may, however, be able to set me right, after I have explained my objections.

1. May I ask for reference to the authority for the statement that Dr. Dupré found an acid in the urine which responded to the chromic acid test? I have never found urine unimpregnated with alcohol so respond; and Dr. Thudichum says, in his Report to the Privy Council for 1867, that "normal urine, when tested, gives no reaction for alcohol under any circumstances, unless alcohol has previously been taken".

2. Mr. Lucas says, "The passage of unchanged alcohol would set up irritation and inflammation in *all* the excretory organs". A few lines further on, he says, "Coldness of the skin would be a sequent; for the evaporation of the alcohol from the skin would cause an increased radiation of heat, and thus leave the parts chilled or cold". Now, if the unchanged alcohol would produce inflammation of the sweat-glands, how would it also chill the skin by evaporation?

3. After having criticised the opinions of Drs. Anstie and Edmunds, Mr. Lucas gives his opinion emphatically as to what the action of alcohol is. He says, "I maintain that it is a *pure stimulant*". Lower down, these lines appear: "There are, however, other phenomena resulting from the administration of alcohol. These are the narcotic

effects: stupor, sleepiness, drunkenness". How can it, then, be a *pure* stimulant? Again, he says, "No stimulant action will induce drunkenness". How then can alcohol be a *pure* stimulant? Again, he says, "Looked at in this light, narcotism or drunkenness is the safety-valve of the drinker". How can it be a stimulant, if "no stimulant action will induce drunkenness"? I confess this mystifies me entirely, because, later on, in speaking of the use of alcohol in disease, the following occurs: "If, in disease, we would administer a stimulant, such cannot be the remedy, because of its depressor action."

Mr. Lucas will perhaps advance, that he has already said that the narcotic effects are due to the carbonic anhydride retained in the blood by this drug; but nevertheless, even if this be so, it is still due to the alcohol, and is part of its action on the system. Here we arrive at another point. Has Mr. Lucas absolutely determined the carbonic acid which he asserts to exist in the blood on these occasions? If so, what are the figures? The most recent experiments give the proposition that alcohol enters into combination with the hæmato-crystalline of the blood corpuscles, and thus forms a new compound acting directly on the nerve-centres. I shall be glad of correction on these points; and it is also my intention before long to bring forward a series of experiments which are now in hand on the subject.

S. W. MOORE, Physiological Laboratory, St. George's Hospital.

SPINA BIFIDA CURED BY INJECTION.

IN reply to the queries of Mr. E. N. Smith, I beg to state, and with some degree of pleasure, that as yet I have had no opportunity of making a *post mortem* examination of an injected case; and now five have been successfully treated. There have been no deaths.

In an abstract of a clinical lecture on the first case, published in the BRITISH MEDICAL JOURNAL of April 6th, 1872, my belief in the probability (nay, all but certainty) of the presence of the cord is stated. This presence may be partial or complete, and probably the latter in dorsal cases. Since the first case was treated, a dorsal case was admitted into the Glasgow Royal Infirmary with the fluid draining off, and the child speedily died. On dissection by the pathologist, the cord was found projected into the swelling in the form of a curve corresponding to the outline of the protrusion. Examination by transmitted light enables an operator to ascertain the absence of solid contents in certain parts, and there he ought to puncture. It may now be assumed that the mere presence of the cord does not preclude success. The possibility of its being entirely absent in five successive cases will scarcely be admitted.

JAMES MORTON, M.D.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

TWO UNUSUAL CASES OF INJURY OF THE SPINE.

(Under the care of Mr. ERICHSEN and Mr. HEATH.)

[Abridged from the Notes of Mr. RICKMAN GODLEE, M.S., Surgical Registrar.]

CASE I. *Fracture (?) of the Spine in Lower Dorsal Region: Recovery with Angular Curvature.*—Whether there was in this case actual fracture of the spine, or partial dislocation with laceration of ligaments, or both combined, could not be stated with certainty; but there was considerable contusion of the spinal cord—the motor tract being slightly, the sensory more severely injured; and the distribution of the symptoms, and the order in which they disappeared, was interesting. About 10.30 P.M. on June 28th, a blacksmith, aged 23, was seated on the top of a pleasure-van, when the driver attempted to pass under a low archway leading into a mews. The blacksmith stooped forwards, the edge of the arch struck the lower part of his back, and he was thus dragged through the archway, forcibly doubled up and crushed between it and the top of the van. He felt at once great difficulty in breathing, and was brought to the hospital. When seen, a few minutes after the accident, the patient was suffering from great dyspnœa; the breathing was almost entirely thoracic; the rectum had been emptied involuntarily. The left leg was paralysed, and there was intense hyperæsthesia over the lower part of the thorax and back, *i.e.*, below the level of the third costal cartilage, as well as over the abdomen and the upper two-thirds of the thighs; even slight pressure on any part of this area caused intense pain, and firm pressure still more. Above and below the limits mentioned, sensibility was apparently normal. Opposite the spines of the tenth, eleventh, and twelfth dorsal vertebræ was a considerable prominence, which terminated abruptly below in a depression. Ice-bags were applied to the spine.

June 29th.—There was still much dyspnœa, but the patient could draw up the left leg in bed and move the toes. The hyperæsthesia was much the same as on admission. The patient had control over his bladder; there was no priapism.

June 30th.—On more careful examination, the limits of the hyperæsthesia were as follows. On the front of the left leg, it extended to three inches below the knee; on the right, to the upper border of the patella; posteriorly, it extended to the middle of the thigh in both limbs; above, it began at the lower border of the ribs. The patient's breathing was rather easier. He still complained of the sensation of having a band tied round the abdomen.

July 1st.—Since 3 A.M., the patient had had painful twitchings of the muscles of the left thigh, especially of those in front, and the symptom was becoming more troublesome. The hyperæsthesia did not extend so high as yesterday, only to the level of the iliac crests.

July 2nd.—Pulse 60, soft and regular; respirations, 24; temperature, 99. The patient was decidedly better. The hyperæsthesia reached from the level of the iliac crests to the upper border of the patella in the left leg, and to the junction of the middle and lower third of the thigh in the right. The twitching of the left thigh was less. The patient could not raise either foot from the bed, but, in attempting to do so, the right rectus contracted more strongly than the left.

July 3rd.—The area of hyperæsthesia had again diminished, the difference being greater below than above.

July 8th.—The hyperæsthesia was now limited to the pubes and scrotum. The patient still had the feeling of a tight band round the abdomen, but it was less marked than it had been before, and was felt at a lower level. His general health was improving.

July 16th.—The hyperæsthesia was now confined to the scrotum, and chiefly to the left side. The sensation of a band round the body had quite disappeared.

July 30th.—For the last few days, the patient had been up and about the ward daily. He stooped much when standing or walking, the shoulders being rounded and thrown forwards. There was some angular curvature of the spine, the ninth dorsal vertebra standing out most prominently. The patient was discharged convalescent.

CASE II. *Fall on Head, causing complete Dislocation of the Fourth from the Fifth Dorsal Vertebræ and Laceration of the Spinal Cord; no Fracture of Skull.*—A stout old woman, aged 75, fell from a top storey window, a height of about fifty feet, alighting on the top of her head. She was at once brought to the hospital. On admission, she was collapsed and quite insensible. There was a triangular wound on the head a little to the right of the vertex, and the scalp was extensively separated from the skull; but no fracture of the bones could be discovered. After a time, the patient became sensible and spoke rationally; she was able to move both arms freely, but her lower limbs were completely paralysed. Signs of slow asphyxia soon appeared; the patient's breathing became more and more embarrassed; she became gradually cyanosed, and died about two hours after her admission.

At the necropsy, the skull was found to be very thick, but unfractured; the brain and membranes were also uninjured. There was an extensive bruise on the right shoulder. On opening the chest, both pleuræ were found to be full of dark fluid blood; the parietal pleura and intercostal muscles of the fourth space were found to be completely torn through from the spine to the middle of the axilla on the right side, and less extensively on the left. The fourth and fifth dorsal vertebræ were completely separated one from the other, their contiguous surfaces being comminuted. The dorsal muscles at the seat of fracture were reduced to a pulp. The spinal cord and membranes were quite torn across, and there was effusion of blood throughout the whole length of the spinal canal. Several ribs on the left side were broken, but there were no fractures of the lower limbs, nor was there anything remarkable about the internal organs.

GENERAL DISPENSARY, BOURNEMOUTH.

FRACTURE OF VERTEX OF SKULL: HERNIA CEREBRI: DEATH: NECROPSY.

(By J. GEORGE DOUGLAS, M.B., Surgeon to the Dispensary.)

THOMAS B., a lad eighteen years of age, while engaged in witnessing some athletic sports held near Bournemouth in August, was accidentally struck with a 5 lb. quoit, which had been thrown almost vertically up in the air a distance of about twenty yards. It fell on his skull about the anterior fontanelle, crushing in the parietal and frontal bones, and causing him to become immediately insensible. On being seen about twenty minutes after the accident, he was suffering from all the symptoms of compression of the brain, breathing heavily and stertorously, with a full slow pulse; the pupils were rather dilated, and acted slowly on exposure to light; he had vomited some brandy which had been administered.

After his admission to the Dispensary, the depressed bones, to the number of six distinct fragments, were removed under chloroform, by merely enlarging the small external wound and using an elevator. One of the fragments, of irregular shape and about the size of a sixpence, was embedded in the cerebral substance of the right hemisphere, being partially driven under the frontal bone. The fracture had extended through both tables of the skull, but the injury to the brain itself was limited to the part where the piece of bone was embedded, and appeared about the size of a shilling. The gap left in the calvarium after this operation was of an irregular triangular shape, measuring over five inches in circumference; the pieces of bone removed consisted chiefly of fragments of the right parietal; and, on the largest, part of the mark of the sagittal suture was distinctly seen. A marked improvement took place almost immediately on the removal of the pieces of bone: the face assumed a more natural expression; the breathing became quieter and not so laboured; and the pupils acted normally. Simple water-dressing was applied to the exposed surface, and an ice-bag ordered to the head; the diet to be of a nourishing but unstimulating kind.

August 6th, M. He had recovered from the chloroform nicely, and had had some quiet sleep. There was no hæmorrhage from the wound. Pulse, 84; temperature, 99 degs. He was perfectly conscious, and took nourishment well.

August 8th, M. He had passed a more restless night, moaning and tossing about as if in pain. The pupils acted naturally. Consciousness was in no way affected. He had slight difficulty in voiding urine, but it passed off without any occasion for the catheter. The wound looked healthy. The ice-bag was still assiduously applied to the head, and strict quietude enjoined.

August 12th. He had not been so well. The pulse and temperature had risen considerably, the former to 90, and the latter to 104.2 degs. He had become unconscious, and lay muttering to himself. He passed urine involuntarily, and was only roused with difficulty to take food. On the wound being dressed, pus was seen coating the dura mater, and a dark sloughy piece of brain seemed separating. An antiseptic lotion of carbolic lotion (1 to 20 of water) was ordered for the wound; and a turpentine enema.

August 16th. The patient had rallied and become conscious. The pulse and temperature had fallen respectively to 86 and 100.2 degs. For a few hours, he had had convulsive twitchings of the muscles of the face; they had assumed the nature of fits, lasting each time from five to ten minutes, at intervals of an hour and a half to two hours.

August 20th. He was in much the same state, except that there had been no convulsive twitching since the 18th. The wound looked healthy, but the part where the brain was injured seemed gradually protruding in the form of hernia. There was a tendency to bed-sores on the parts subject to pressure.

August 23rd. His general health was improving, and he walked upstairs to another room to-day during the nurse's absence. The ice was discontinued. The hernia cerebri was considerably increased, and a pad with strapping had been applied over it.

August 28th. The patient continued in the same state, and bore the pressure of the pad well; but it seemed quite ineffective in retarding the hernia, which had much increased. An antiseptic catgut ligature was therefore applied round the base, for the purpose of gradually strangling it. The dimensions of the hernia were—longitudinally 3¼ inches, transversely 2½ inches, and in circumference 6½ inches. Pulse, 106; temperature, 100.4 degs.

September 3rd. He was weaker, and had had attacks of regurgitation which had resisted all treatment. The pedicle of the hernia had now become so much smaller, owing to the ligature, that the fungoid growth above it was removed by the knife; it weighed an ounce and a half, and consisted of broken-down sloughy material, pus, and blood.

September 10th. He was much weaker in health; and there was much discharge from the wound. After removal of the fungus, the brain seemed to recede, forming quite a cavity; but this had now filled up, and a fresh growth was protruding, which it was found necessary again to remove. The pulse had remained between 90 and 100 since last report, and temperature between 102 and 105 degs.; both were invariably higher in the evening.

September 14th. A recession of brain-substance had again taken place; and an ordinary probe could be passed down to almost the full extent. Some antiseptic tow was used to absorb the discharges. Pulse 102, weaker; temperature, 101.3 degs.

September 23rd. He had lost flesh considerably during the last week, and did not turn about so readily in bed. He suffered, however, no pain; nor was consciousness or his memory in any way affected. Nearly an ounce of serum was removed from the cavity in the brain by means of a pipette.

September 26th. He had become much worse since the preceding day, and swallowed nourishment with difficulty. He was only conscious at intervals, but did not seem to be in any pain. In the evening, the pulse at the wrist was almost imperceptible.

September 27th. He sank quietly, and died without a struggle at six o'clock this morning.

Necropsy, made thirty-six hours after death.—The head only was examined. On removal of the calvarium, the dura mater was found adherent to the bones. The upper surface of the brain had a congested appearance most marked in the neighbourhood of the wound. The sides of the cavity caused by the injury had partly closed in, but were still of sufficient depth to admit half the length of a probe. It was situated in the right hemisphere about an inch to the right of the longitudinal fissure, and involved the frontal lobes. The shape of the cavity was conical, with the apex running almost vertically into the brain. There was no fluid in the lateral ventricles, but a slightly purulent coating lined their cavities. There was also a covering of greenish-looking pus over the dura mater on the under surface of the brain, which resembled that seen in tubercular meningitis; its odour was most offensive. The weight of the brain was fifty-one ounces.

REMARKS.—The preceding case presented several points of interest. Firstly, it showed the great amount of injury that the cranium can receive without immediate death being produced—injury not confined to the bones of the cranium, but extending to the vital and delicate organ they are destined to protect. A great deal in this case depended on the situation where the force of the blow was received, which was the most favourable one that could be desired. A stiff felt hat, which the patient wore, to a slight degree retarded the impetus of the blow.

The treatment was comparatively simple, and consisted—1, in removing the cause of compression; 2, in subduing the consequent inflammatory action. Chloroform was administered and taken most easily; it not only relieved the pain of the operation, but subsequently induced the necessary rest and quiet. For the second indication, the subdual of inflammatory action, an admirable agent was found in the ice-bag, and to its assiduous application the long duration of the case might be attributed. The hernia, a common result of such accidents, resisted all treatment—compression, ligature, and slicing off were used in vain.

Death was hastened by the occurrence of inflammation around the vital parts at the base of the brain, as the *post mortem* examination revealed; the patient having been already exhausted by the discharges and irritation of the hernia. The long duration of life, and the retention of consciousness, memory, and the special senses, were all points worthy of notice.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BRANDT'S ESSENCE OF BEEF.

THIS well known preparation is already largely used by leading medical practitioners in the metropolis. It is prepared in two forms: in the solid extract preserved in skins, and a semifluid extract preserved in tins. The first is for ordinary use; the second is more especially suited for very delicate stomachs and for invalids. It is prepared with great care from English meat of good quality, and, in delicacy of flavour, the fluid extract is well known by London physicians to be a preparation on which they can entirely rely. Hence the favour with which it has met, and our reason for mentioning now with approval the samples which have been submitted to us.

THE Secretary of State for the Colonies has appointed Surgeon-Major T. J. Orton, Army Medical Department, Colonial Surgeon at the Straits Settlements, with a salary of £750 a year, and right to private practice.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 10TH, 1874.

WILLIAM WHITE COOPER, F.R.C.S., Vice-President, in the Chair.

ON THE ELIMINATION OF UREA IN CERTAIN DISEASES. BY SAMUEL WEST, B.A.OXON.

THE method employed for estimating the urea was that described in a paper read before the Chemical Society by Dr. Russell and Mr. West (*Journal of the Chemical Society* of August, 1874). The cases examined were three of pneumonia, four of rheumatic fever, two of Addison's disease, and one of diabetes mellitus.

Pneumonia.—The total volume of the urine was much reduced during the fever, returning to the normal during convalescence. The percentage of urea was always high during the fever, and fell suddenly when the fever terminated. There was no more definite relation to be observed than this very general one between the percentage of urea and the temperature. Where the nervous symptoms were very marked, the percentage, though above the normal, was below that of the other cases. The total urea during the fever was in all these cases below normal, and markedly reduced when compared with the quantity of nitrogen ingested. There were several possible explanations of the fact. The most probable were two, of which the first accounted for the apparent disappearance of nitrogen by its being stored up in the body—(*a*) by retention, in which case there must be a critical discharge during convalescence; or (*b*) by going in some way to form the nerve-tissue produced in the lungs. The second explanation was, that nitrogen left the body by the kidneys, but in some other form than urea, and so escaped estimation. In convalescence, the total urea at first was reduced, and subsequently increased, rising gradually to the normal. From a comparison of these cases of pneumonia with others quoted in books, it was probable that there were two sets of cases of pneumonia, in one of which the total urea was increased, while in the other it was diminished.

Rheumatic Fever.—As in pneumonia, the total volume of the urine was much reduced. The percentage during the fever was very high; at its termination dropping suddenly, and returning gradually to the normal. Changes in diet produced oscillations in it. The great increase in the total amount of urea mentioned in books was not found to occur in these cases.

Addison's Disease.—The total volume of the urine and the total urea were much reduced. The percentage of urea, however, remained normal, so that the emaciation and loss of strength might be connected with the loss of appetite and referred rather to diminished tissue-repair than to increased waste of tissue.

Diabetes Mellitus.—The total volume of urine was small for the disease; the percentage of urea was not above normal; and the total urea was much increased. The increase was not due in this case to excessive ingestion of food, but probably to increased metamorphosis of tissue. The sugar might probably be referred to the same source, a conclusion notably supported by Schultze and Riess's experiments on phosphorus-poisoning, and by Dr. Sydney Ringer's experiments, in which a direct relation between sugar and urea in diabetes was established, and their dependence upon the nitrogenous elements of the food shown. There were probably as many kinds of diabetes as there were factors in its production, and one of these might be self-digestion by pancreation.

General Conclusions.—The author arrived at the following conclusions. From the indefinite variations which occurred from day to day in the total volume of the urine and in the total amount of urea, very little information of clinical importance is to be expected. It is to the percentage that we must look for indications of the greatest value. All information which can be derived in disease from the percentage of the total urine can equally well be derived from that of the urina sanguinis; hence the necessity of collecting the total urine of the twenty-four hours is avoided. It is not yet certain that in health a similar relation exists between the percentage of the urina sanguinis and that of the total urine. The percentage of urea during fever—1, is high, and remained fairly constant as long as fever lasted; 2, does not follow the slight variations of temperature; 3, does not vary with the volume of the urine; 4, shows oscillations with changes in diet (as also during convalescence); 5, fell with the termination of the fever. During convalescence—1, a gradual and progressive fall marks the first period; 2, a gradual and progressive rise marks the second period until a mean of about 1.5 or 2 per cent. is established; 3, there is a fairly definite relation between the specific gravity and the percentage during convalescence. The total urea during fever—1, is much reduced, or, at any rate, not in great excess; 2, varies considerably from day to day independent of any law we can at present determine; 3, is independent of the diet in great measure; 4, is independent of the temperature (hence the total urea is not a measure of fever); 5, these variations depend rather upon the variations in the total volume of urine than upon those in the percentage of urea. These variations were considerable in the different cases quoted. During convalescence the total urea—1, is often much reduced; 2, gives a different average in the two periods, but sometimes that of the first, sometimes that of the second period is higher (perhaps, this depends upon the kind of fever from which convalescence is taking place); 3, similar variations independent, in great measure, of diet, and percentage, and depending upon variations in the total volume of the urine, recur as during fever. Urea does not appear to be the measure of tissue change, and in some of the cases quoted it was not in itself sufficient to account for the nitrogen ingested in the food. Hence the relations of urea to its sources, the tissues and the food must be much changed in disease. This apparent loss of urea may be due to its being stored up in the body, so that there should be during convalescence a critical discharge, or to its being eliminated by the kidneys in some other form than urea. The latter conclusion being, in some cases, supported by the want of relation between the specific gravity and the percentage appears more probable.

Dr. DRYSDALE suggested that the author should explain his process.—The CHAIRMAN said that Mr. West had brought his apparatus to the Society, and would explain it after the meeting.—Dr. DICKINSON said that the Rev. Dr. Haughton was the first to point out that there was in diabetes a constant ratio between the amount of urea and that of sugar. No doubt, the urea was increased in diabetes; but the sugar was present in very various proportions; hence there was no fixed ratio between the total of urea and the total of sugar. An ordinary man, however, must make a certain quantity of urea (about three grains for each stone of his weight). This, which might be called "necessary or vital urea", should be deducted from the total urea excreted in diabetes; and then a generally constant ratio between the remaining urea and the sugar would be observed. The increase of both sugar and urea was due to the breaking up of albumen, probably in the liver.—Mr. WEST described and demonstrated his method of analysis. It consisted in decomposing urea, in a simple apparatus, by means of a mixture of soda and bromine into carbonic acid and nitrogen; the former being absorbed by the soda, the latter was collected in a graduated tube, showing the amount of urea.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 20TH, 1874.

Sir W. JENNER, Bart., M.D., F.R.S., in the Chair.

Fibro-Cystic Tumour of the Neck.—Mr. CROFT exhibited a fibro-cystic tumour of the neck, removed from a healthy man, aged 43, by Mr. West of Birmingham. At the age of twelve, a glandular tumour had been removed from the neighbourhood of the ear. About four years ago, a tumour formed betwixt the hyoid bone and the lower jaw. It was about the size of an orange, and freely movable. It possessed no malignant characters. In April, 1872, it was punctured, and several ounces of fluid escaped. The opening closed, in spite of the efforts made to keep it open. As the tumour continued to grow, it was removed. It was found to be a cyst, with a wall about a twelfth of an inch in thickness, consisting of connective tissue lined with epithelium. In the interior was a quantity of clear yellow fluid. It had no connections with the parotid or other glands.—Dr. PAYNE pronounced it to be in his opinion of a cancerous nature. The specimen was referred to the Morbid Growths Committee.

Aneurism of the Thoracic Aorta.—Dr. PEACOCK showed a specimen of aneurism of the arch of the aorta, from a patient in St. Thomas's Hospital. At first, there was no murmur, and only pain in the chest and back. Afterwards a murmur, first diastolic and then systolic, was heard over the base of the heart. It ultimately shifted over to the left, and then came on dulness and impaired breath-sounds, with an increase in the loudness of the murmur. There was no dyspnœa, but the voice was altered. The patient had become so well that he was leaving the hospital, when he died quite suddenly of hæmoptysis. It was found that there was a sacculated aneurism springing from the arch of the aorta low down in front, which had opened into the left bronchus. The opening was almost closed by a clot. Dr. Peacock said he had had one case of aneurism under notice as long as four years.

Addison's Disease.—Dr. PEACOCK showed a case of Addison's disease in a railway porter. During four months, he had been ailing from dyspeptic symptoms, vomiting, prostration, and a discoloured skin. The man died in a faint. Disease of the suprarenal capsules had been diagnosed in life, and the *post mortem* examination quite corroborated the diagnosis. The glands were entirely destroyed and converted into caseous material. There was old tubercle in the lungs.—Sir W. Jenner said he had intended last session to bring a very interesting case before the Society of marked bronzing of the skin where the suprarenal capsules were free from disease. The solar plexus, however, was involved in a mass of diseased glands.—Dr. Greenhow hoped that the case might be published ultimately; and the President promised to do so.

Cancer of the Omentum.—Dr. Crisp showed a case of cancer of the omentum, where the symptoms had in life closely resembled those ordinarily found in cancer of the pylorus. Its duration was about eleven months. The omentum was drawn up towards the convex margin of the stomach by the cancerous mass, which weighed ten ounces. He regarded cancer not so much a disease of advanced life as some pathologists thought.

Diffused Suppurative Gastritis.—Dr. Hilton Fagge showed microscopic specimens from a case of diffused suppurative inflammation of the stomach, which he had seen with Dr. Wise of Shooter's Hill. The patient had been staying at Brighton. He had returned home and taken a light meal, when he was seized with acute pain in the epigastrium, accompanied by much retching. The disease was diagnosed as biliary colic. The man died in the evening, after being relieved by full doses of opium. Forty hours after death, the body was examined. The lungs were healthy; the heart was soft; the muscular structure brown; and, under the microscope, the muscular fibrillæ were found to be largely converted into granular matter. The liver was soft. The kidneys were healthy. There was no ulceration in either the mucous or serous surfaces of the stomach, but the coats were softened and easily fell asunder. Under the microscope, they were found infiltrated with pus-cells, and the muscular fibres much destroyed and separated. The gastric glandulæ were unaffected. The case was a very rare one, and Dr. Fagge had only been able to find one other, reported by Professor Bamberger.—In answer to questions put by the President, Dr. Fagge said the pulse and temperature had not been recorded.—Referred to Morbid Growths Committee.

Renal Calculus discharged through a Fistulous Opening.—Dr. Cayley exhibited, for Mr. Whateley of Berkhampstead, a renal calculus which had been discharged through a fistulous opening in the loins. It was of irregular shape, and about as large as a hazel-nut. It appeared from one facet to have been broken off a mass. Two smaller calculi afterwards came out by separate openings. The man, thirty-three years of age, worked in an arsenic manufactory, and the question was raised how far the calculus might be arsenical—arsenic being eliminated by the urine.

Hydatids of the Liver.—Dr. Cayley showed, for Mr. Whateley, a specimen of hydatids of the liver. In twelve months, the man had had as many attacks of hepatic pain, together with jaundice. At last, the hydatids came away *per anum*, and the man (aged 36) had remained well since.

Hypertrophy of Bone in Birds.—Mr. Nunn showed some merrythoughts of French partridges, which were hypertrophied. The birds rose badly and flew slowly.

Rheumatic Arthritis.—Mr. Nunn exhibited a case of rheumatoid arthritis in the knee in a man aged 75, who died from renal disease. Detached masses of bone could be felt in the knee. It was the only joint affected.—Mr. W. Adams thought it a remarkable case. In his experience, the hip was the joint most affected. He regarded the new formations as consisting of a growth of osseous material in the articular cartilages, polished by friction, which produced the eburnation.

Aneurism of the Abdominal Aorta.—Dr. Coupland exhibited an aneurism of the abdominal aorta, where the sac had ruptured and the aneurism had become diffused. The patient was syphilitic. He was taken into the Middlesex Hospital. At first, there were no signs of aneurism, and the case was looked upon as one of lumbago. In a fortnight, collapse came on, and a tumour formed in the right flank. In five days he died. An exploratory puncture was made, but only a few drops of blood flowed. It was a large sacculated aneurism extending from the point of emergence at the diaphragm down to the renal arteries. The vertebræ were eroded. The left kidney was displaced, and a large clot embraced the left ureter, the vena cava, the aorta, and pelvic vessels.—In answer to a question of the President, Dr. Coupland stated that the arteries were atheromatous.—Dr. Crisp was of opinion that the atheroma followed the formation of the sac.

Diseased Pulmonary Arteries.—Dr. Coupland showed a specimen of disease of the pulmonary valves with a dilated pulmonary artery, and a patent foramen ovale. The patient was 75 years of age, and had suffered from cough for eight months. When admitted into the hospital, he had cough, œdema of the legs and scrotum; there was emphysema, and a double murmur was heard over a large area. After death, the heart was found to weigh twenty ounces. Both chambers were dilated and hypertrophied. The pulmonary artery was six inches and one-eighth in circumference at its greatest point of dilatation. The arterial coats were very thin. The pulmonary valves were thickened, prized with vegetations, and incompetent to close the orifice, which measured three inches and one-eighth in circumference. The branches of the pulmonary arteries were dilated and atheromatous. Dr. Coupland rejected the hypothesis that these changes were either rheumatic or the effect of the congenital malformation, and regarded them as due to strain—to the great tension in the pulmonic circulation caused by the obstructed bloodflow in the emphysematous lungs. In evidence of this, he pointed out that the mitral and aortic valves were healthy.—The President thought that the opening of the patent foramen ovale was so oblique that no blood-current through it was practicable.

Elephantiasis of the Leg.—Mr. Butlin exhibited, for Dr. Newman, a specimen of elephantiasis of the leg, which had occurred in an English boy. It had commenced at the age of three months as a nodule at the internal malleolus; and from thence it gradually spread. Ultimately the limb had to be amputated, and was found to weigh twenty pounds. It was no less than three inches longer than its fellow. Sensation was unaffected, and motion was only impeded by the weight and bulk. There was a great development of connective tissue in the posterior tibial and popliteal nerves; while the nervous febrils were unaffected.

Primary Tubercle of Lymphatic Glands.—Dr. Pye-Smith brought forward a specimen of primary tubercle in the lymphatic glands of the lungs, sternum, and stomach. They were removed from a woman, aged 45, who had suffered two years with cough and increasing emaciation. There was also a swelling over the sternum and an abscess in the neck. She was treated for tertiary syphilis. Shortly before her death, she was found to have decided enlargement of the glands of the neck, axilla, and groin. The swelling at the sternum developed into an abscess; the anæmia and emaciation increased. A brief improvement preceded death from dyspnœa, with pleuritic effusion. The diagnosis was far from easy. After death, a dense cheesy mass lay behind the sternum. The glands in the thorax were all caseous and continuous. A similar condition prevailed in the abdominal glands, and there were like nodules in the omentum, the pleura, and the pericardium. The large glands showed masses of caseous *débris* and thickened trabeculæ under the microscope.—In answer to a question from the President, Dr. Pye-Smith said the fluid in the pleura was of an inflammatory character.—Dr. Douglas Powell thought the left lung contained a large quantity of connective tissue and was collapsed. He thought the disease rather lymphoma than tubercle.—Dr. Gibbon thought that if it had been lymphoma the spleen would have been affected.—Dr. Fagge said he had described two similar cases in the last volume of the *Transactions*.—Referred to Committee on Morbid Growths.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, November 4th, 1874.

E. J. Tilt, M.D., President, in the Chair.

Recto-Vaginal Fistula caused by a Zwanck's Pessary.—Mr. Churton related the particulars of a case where a patient, aged 60, had worn a Zwanck's pessary for two years. A rent large enough to admit two fingers existed at the time of its removal. This nearly closed up, without operative interference, in about two months.—Dr. Routh observed the case cited showed how necessary it was to know how long such instruments should be retained. He had seen an instance where a globular pessary was retained for five years, and then had to be removed with forceps. He had known also of two cases in which Hodge's pessaries produced fistulæ. His rule was to keep them in for three months at the utmost, and then remove them for a few days before re-introduction; but usually he preferred six weeks.—Dr. Rogers said that no matter how judiciously rules might be laid down, they would not be observed by patients. On one occasion, he had removed one of the old boxwood pessaries placed within the patient twenty years before by the President, Dr. Tilt. He had operated on other cases for removal of both Hodge's and Zwanck's pessaries, as also for fistulæ caused by them. He thought Zwanck's pessary a most useful instrument if removed every night, and its use discontinued for a time, if necessary.—Dr. Cleveland thought that, as it was improbable that a pessary would suddenly make its way through the vaginal wall into the rectum or bladder, the best rule of practice would be to direct the wearer of an instrument to present herself as soon as she experienced any unusual irritation or pain.—Dr. Hope mentioned a case that had occurred to him in the out-patient department at St. Bartholomew's Hospital, where a large vesico-vaginal fistula existed as a result of wearing a Zwanck's pessary for fourteen months.—Dr. Edis alluded to a case where he had extracted, with considerable difficulty, a large ball-pessary from a patient who had worn it for eleven years, the whole of the vagina being in a state of granular ulceration. In several other instances, he had removed instruments imbedded in the vaginal walls that had caused more or less inconvenience.—Dr. Tilt thought these cases should be noted as a warning to others.—Dr. Wiltshire mentioned a case which came under his care at St. Mary's Hospital, in which a Zwanck's pessary caused fistulous openings into both the bladder and the rectum. He thought that if a rule were laid down, it should not depend on time, but on the supervention of symptoms of discomfort, discharge, etc. He regarded gouty women as very intolerant of pessaries, incrustations rapidly ensuing in them. He thought every patient should have clear instructions given to her respecting these instruments.—Dr. Gervis said that on more occasions than one he had removed a Hodge's pessary on finding ulceration of the vagina present corresponding with one or other of its bars; and yet the patient was not conscious of any inconvenience beyond some leucorrhœal discharge.—Dr. Palfrey remarked that there was often great trouble without many symptoms. In one case, eighteen months after the introduction of a pessary, there was a sudden gush of urine, from the pessary having forced its way into the bladder. The patient denied all previous symptoms. He made it a rule with hospital patients to have them removed once a month by the nurse, who then employed the douche; and, if no harm had resulted, the clerk reinserted the pessary.—Dr. Hayes referred to a case where a Hodge's pessary had become imbedded in the vaginal wall.

Six Months' Fœtus.—Dr. Charles Carter exhibited a fœtus born 172 days, or 24 weeks and 4 days after marriage. The patient, aged 26, was married on May 3rd, 1874, menstruation ceasing the last day of April. There had been a coloured discharge for one day at the usual time in the month following. Delivery took place prematurely on October 22nd. She had never experienced any fœtal movements. The fœtus weighed 1 lb. 6 oz., was twelve inches long, of a dark red colour, with abundant hair on the head and down on the cheeks. It cried loudly several times, passed meconium, of a greenish-black colour, and urine whilst being washed, and lived for twenty-one hours; a little milk and water was given to it during life. The nails were well formed on the fingers, reaching almost to the ends. The eyelids were agglutinated together; on tearing them open, the pupillary membrane was distinctly seen. The right lung was perfectly expanded, but only the upper lobe of the left. The testes were lying midway between the kidneys and the internal ring. There was a centre of ossification in the os calcis, but none in the astragalus; centres of ossification also existed in the first three pieces of the sternum. The fœtus was not more than six months old, if so far advanced.—Drs. Routh, Brodie, Wiltshire, Cleveland, and Barnes, made some remarks.

Structure of the Decidua in Cystic Degeneration of the Chorion.—Dr. Hoggan demonstrated this by means of several microscopical specimens, prepared by Mrs. Hoggan, M.D., from a case of miscarriage at the end of the sixth week, under her care, with explanations by her. The decidua caduca was seen to have no connection with any hypertrophy of the uterine mucous membrane (if such exist), but it was really a typical specimen of embryonic tissue formed probably by exudation; and at this stage of growth the embryonic cells, embedded in intercellular substance, had scarcely begun to differentiate themselves into the future tissues; enough progress had, however, been made in the cells forming themselves into rows as to show development to be proceeding. The cystic degenerated ovum was of the size of a hazel-nut, covered with villi, and embedded in deciduæ, which were destroyed in dissecting it out. The cyst-wall was treated with silver, but nothing but fluid was found inside. Epithelium was seen in different stages of growth, which seemed most active where the largest villi formed a sort of pedicle for the cyst; in the same field of the microscope could be seen the separate embryonic cells on dark ground substance, passing by growth and junction into the so-called lymphatic lacunæ, and these again passing by vacuoles into the regularly shaped epithelial cells lining the cyst-walls.

Rat-Trap Forceps.—Dr. Heywood Smith exhibited two new pairs of forceps to aid in the removal of growths, etc., from the uterus, or to be used as vulsella during ovariotomy. One was similar in construction to the ordinary pile-forceps; the other was constructed specially for the removal from the uterus or vagina of large fibroid tumours or polypi after they had been detached. They were made in two parts (as midwifery forceps), and when in position could be locked. The inner surface of the blades was armed with teeth pointing towards the handles, rendering their introduction easy and their slipping difficult.—Dr. Meadows, Dr. Palfrey, Dr. Wiltshire, and Dr. Gervis, made remarks.

Membranous Dysmenorrhœa.—Dr. Alfred Meadows exhibited a specimen of the membrane passed in a case of so-called membranous dysmenorrhœa. Remarking upon the intractable character of these cases, he invited the opinions of the Fellows of the Society on their pathology and treatment.—Dr. Aveling believed that the membrane exhibited was the nidal decidua, or lining of the uterus which is periodically shed, increased in thickness and toughness by hyperæmia of the organ. He had ventured to call this hypernidation. Mercury had been found to prevent this abnormal condition. The rational remedies were those which reduced the supply of blood to the uterus.—Dr. Hayes asked what appearances were presented under the microscope.—Dr. Williams inquired whether any trace of glandular tissue had been noticed; he had examined several, and found it present. Fatty degeneration of the lining membrane took place before the catamenial period; the tissues around were injected, but the uterus was not enlarged. Though mucous shreds were passed, the condition was due to an altered nutrition of the uterus itself; it was not congestion, but was analogous to some skin-eruptions, and was not the product of inflammation. Chlorate of potass had been tried, points of this substance being left in the uterus, which cured it for the time.—Dr. Barnes thought there was no naked eye evidence of glandular tissue. A lady medical student had brought him a specimen she had passed herself, remarking that she had read they only occurred where sexual intercourse had taken place. This had not happened in her case. He thought the membrane occurred in consequence of hyperæmia, apart from gestation. The mucous membrane was not necessarily shed.—Dr. Hoggan remarked it was easy to prepare a specimen, and let the Fellows see for themselves whether it was an exudation.—Dr. Hayes inquired whether there were any traces of the Fallopian tubes in the mould of the uterine cavity, of which Dr. Meadows spoke.—Dr. Gervis could recollect no case of membranous dysmenorrhœa in which extreme uterine congestion was not an abundant and probably antecedent condition; and the treatment that he had found to succeed the best strengthened this view. They were generally very tedious cases, but he had found local depletion by scarification and the internal use of the bichloride of mercury together very frequently effect a cure.—Dr. Rasch alluded to a case where a complete cast of the uterus had been passed.—Dr. Brunton suggested that there might be an element of syphilis in these cases, as several Fellows had stated that the treatment which gave best results was mercury in some form.—Dr. Heywood Smith asked if Dr. Meadows had employed the intrauterine application of pernitrate of mercury.—Dr. Tilt stated that some years ago he had published some cases of this disorder. There was one point to which sufficient attention had not been paid; independently of the body of the uterus being the source of the disease, the irritation and congestive state of the cervix was due to the irritation set up by the attempt to pass the membrane. In one case it was followed by acute inflammation. He had injected tincture of iodine in several cases, in two successfully. It was an important point to bear in mind the congestion of the uterus. As for Dr. Brunton's suggestion, he had never heard it mentioned before, and did not believe it.—Dr. Meadows dissented from the view that these cases were due merely to an active state of uterine hyperæmia. He did not dispute that this condition existed in most, if not all, of these cases; but there must be something more than this, for uterine hyperæmia was a very common condition, whereas membranous dysmenorrhœa was comparatively rare. He believed it was essentially a constitutional affection, not merely local. He knew of no certain remedy; all those which had been mentioned, and many more, he had tried in the present case without the slightest success. Iodine, mercury, iron, cod-liver oil, local depletion, and other local remedies, had signally failed. He believed that many of these cases were practically incurable.—Dr. Williams and Dr. Aveling were requested to report further on the case.

Retroversion of the Gravid Uterus.—Dr. Gervis read a paper on this subject, relating the particulars of two fatal cases, as also of a third which only escaped being fatal. Dryness of the skin was a prominent symptom in all the cases, and absence of any head-symptoms. In the first case, miscarriage occurred a few hours after reposition of the uterus, and death on the following day; complete retention had existed for three or four days. In the second case, retroversion with retention had been present for a fortnight; six pints of extremely offensive bloody urine were drawn off; death ensued the day following reposition of the uterus. In the third case, retroversion probably took place three weeks before, with retention more or less complete, micturition only being accomplished with much difficulty and straining, in small quantities at a time; three quarts of urine were drawn off, and the uterus was replaced in the knee-shoulder position; inability to retain the urine persisted for ten days, but the patient ultimately did well.—The discussion of the paper was postponed to the following meeting of the Society.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 21ST, 1874.

ELECTION OF CORONERS: DUTIES OF THESE OFFICERS.

THE election of a coroner for the Central District of the County of Middlesex, rendered necessary by the decease of Dr. Lankester, brings before us at once all the defects of the present system of appointing these officers. These defects have been frequently described by writers on State Medicine, and suggestions have been made for improvements, but the old routine continues. A writ *de Coronatore eligendo* is issued to the sheriff by the Court of Chancery, according to the statute 28th Edward III, modified to some extent by the 58th of George III, and the 7th and 8th Victoria; and a polling takes place, such as formerly took place at an election for a member of parliament. A heavy expense is thrown on the candidates. Committees with a long array of names are appointed; votes are "earnestly solicited"; and there is often as much excitement at the election as if a seat in parliament were at stake.

Our law places the choice of a fit and proper person to fill the office in the hands of a special class of voters, who, as a rule, are wholly unqualified to form an opinion on the subject. Every elector must have a freehold interest within the county, but the amount of estate is not defined, as it is in the case of electors for members of parliament. However small the value, even the site of a pigstye, it will confer the right of voting. It was even suggested, that the purchase of the ground for a grave in any suburban cemetery would confer the right; but this "cemetery" qualification for an elector, under the advice of the sheriffs, has been dispensed with by the candidates for the coronership of Ccentral Middlesex. The large class of educated householders, it will be perceived, are hereby excluded from voting.

The coroner, it has been said, is in theory both a magistrate and a judge; he has to exercise the duties of both. He should be thoroughly acquainted with the law of evidence, and have a sufficient knowledge of forensic medicine to enable him to form an opinion of the cases in which inquests are required, and of the value of the medical and other evidence which may be necessary to establish the cause of death. He should, also, be able to extract by examination all that is necessary to throw light on the cause of death, and to place the essential facts in a concise and intelligible form before a common jury.

It is obvious that the voters, in whose hands exclusively the law at present places the right of electing a coroner, are quite unfitted to form a judgment on these points. A popular candidate, recommended by his politics or by local or vestry interests, will be elected in preference to one who may possess the requisite medical and legal knowledge, but who may, perhaps, fail as an orator in addressing an election mob at a polling-booth. Men quite competent, whether of the legal or medical profession, are sometimes elected. We could point to many excellent county and borough coroners, but such cases are exceptional; and, on the other hand, we could draw a picture of the injury done by neglect or ignorance on the part of many who have owed their position to this bad system of popular election. 1. Inquests have been held in cases in which a moderate acquaintance with forensic medicine would have shown them to be unnecessary. 2. *Post mortem* examinations have been ordered in cases in which the cause of death was plain without them; and they have been omitted, and no medical evidence called for, in cases in which medical knowledge would have shown such evidence to be indispensable. 3. We could point to a large number of cases in which bodies have been exhumed months and years after burial, in which poison has been proved to have been the cause of death, when the verdicts returned at the previous inquests were deaths from natural causes, convulsions, etc.

The election of coroner has now passed into a contest between the medical and legal professions. The professional battle is carried on vigorously by the respective committees, and every freeholder is earnestly solicited to give his vote and interest to the medical man or the lawyer. Considering the nature of the inquiries which chiefly come before a coroner, it appears to us that a skilled knowledge of medicine is more necessary than that of law. It is well to say that a lawyer can always avail himself of medical evidence. But is he always able to estimate its value or test its accuracy? It generally goes to the very essence of the inquiry, namely, the cause of death; and the results of inquiries in cases of child-murder, criminal abortion, poisoning, wounds, etc., show that a legal coroner is often unable to deal with the medical evidence so as to distinguish that which is reliable from that which is erroneous.

On the other hand, a medical coroner, from want of training, may not have the faculty of putting his questions in a proper legal form to extract the whole truth, or of confining himself strictly to the subject of inquiry: he may not have the power of weighing evidence; but these deficiencies are soon removed by practice, while no amount of practice will supply the wants of the requisite medical knowledge in a legal practitioner. As a rule, in all important cases giving rise to criminal trials, the proceedings in a coroner's court, whether that officer be a member of the legal or of the medical profession, are generally set aside for insufficiency or informality, and the whole of the case is again investigated by a magistrate, and the prisoner committed by him for trial. It is rarely that a person is tried for murder upon a coroner's inquisition alone, and we sometimes find an accused person committed for trial by a magistrate after the verdict of a coroner's jury has led to his discharge on what is called an open verdict. These facts show that, whether an inquest is conducted by a legal or by a medical practitioner, the law attaches but little importance to the result. There is, in all cases of great public interest, a *venire de novo* before a magistrate skilled in his knowledge of law, and in the practice of putting the depositions of witnesses in a proper legal form.

The West Haddon tragedy,* on which we have elsewhere commented, will show to what deplorable results an ignorance of medical science may lead a legal coroner. A statement was here sworn to, and accepted by the coroner as true, which led to a charge of murder against a lady, and ultimately to an act of suicide. Such a statement would probably not have been made before a skilled medical coroner; it was so repugnant to ordinary medical experience, that it would have been received with distrust, or at once rejected. In the case of an unscrupulous or ignorant medical witness giving positive evidence on an inquest, a legal coroner would not have the power to distinguish the false from the true. He would accept the statement as it was made, and direct the jury accordingly, although it might lead to a false charge and the incarceration of an innocent person. A mistake made by a medical coroner on a point of law can scarcely lead to such serious results as those above pointed out. We believe, therefore, that the public incur, under the present mode of election, a greater risk in appointing to this office a legal, in preference to a medical practitioner.

The source of all the present evils connected with the office of coroner is in the mode of election. What sort of judges should we have, if the justices of the Queen's Bench or the Common Pleas were elected by the freeholders of the county, whose "independent vote and interest" they would be obliged to solicit individually? And yet it would be just as reasonable to place the election of these learned personages in the hands of the lowest and most ignorant class of freeholders, as to entrust to them the selection of coroners, who in theory exercise the functions of judges.

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* See BRITISH MEDICAL JOURNAL, January 17th and 24th, 1874.

Our Ministers may probably at another time take this subject "into consideration". A large number of domestic subjects advance to this stage and no further. We have scarcely got beyond the regulations required by the 28th of Edward III (A.D. 1355) and incorporated in later Acts of Parliament. The polling at hustings, and the accompanying expenditure on beer and tobacco, have been abolished in reference to the election of members of the House of Commons; and there is still stronger reason for suppressing this absurd mode of selecting a learned professional gentleman whose functions are to inquire into the causes of death, whether these are natural, criminal, or accidental; to inquire of treasure trove, under the statute 4 Edward I; and, lastly, to inquire of wrecks and royal fishes, such as sturgeons, whales, and the like!

It is impossible to comprehend on what reasonable principle, in the year 1874, the selection of an officer for these in some respects important duties, can be placed in the hands of a very limited and low class of freeholders. But so it is. The mode of election of a coroner for Central Middlesex bears testimony to the prejudice we have in retaining ancient customs, although the necessity for such a course has ceased to exist for at least a century. Until an Act of Parliament can be passed to place the election or selection of these officers on some rational basis, it would be better to leave the nomination of them to the Lord Chancellor and the President of the Royal College of Physicians, than to allow it to depend on the results of a popular election.

THE CLIFTON SEWERS.

THE Medical Officer of Health of Bristol has written a letter to the *Western Daily Press*, in which he denies the statements which have been made as to the occurrence of cases of blood-poisoning from sewer-gas in Clifton, but admits that the sewers are not ventilated, and defends the system, quoting well known authorities as bearing him out. This is likely to do a vast amount of mischief. It is quite true that Drs. Parkes and Sanderson, in their report on the sanitary condition of Liverpool, stated that no special ventilating apparatus was necessary under certain conditions, but that was because they considered that there were a sufficient number of intentional or accidental openings to allow the escape of any foul air which might be produced. In that very report they lay down the following as the means "to prevent the contamination of the air breathed by the inhabitants of a town with sewage emanations". They say "the first requirement is that there should be no air-communication whatever between inhabited houses and sewers or drains; and the second, that the air contained in the sewers should be at all times so diluted with common air that when, as must always be the case more or less, it escapes into the streets, it may be as little injurious as possible".

If there be no foul air in the Clifton sewers, then no one can object to openings being made into them, so that there may be a current of air established through them; if, on the other hand, there be foul air in them, it is better to let it out into the streets, insuring dilution by frequent openings, than to let it escape through defective traps or through open communicating drains into the houses: and we again find our authority in the same report—"We regard the prevention of the entrance of sewer-air into houses as an object paramount to every other in importance; for it is a matter of general medical experience that even a fractional contamination of the air of a sleeping room is almost certain to produce disease sooner or later; whereas, we know that in many towns (as, *e.g.*, the metropolis) the air of the streets is polluted to a very considerable extent without any apparent detriment to the public health."

To try to make Dr. Parkes an advocate for a system of unventilated sewers, is a little too bad. In the last edition of his admirable treatise on *Hygiene*, he says (p. 349): "That no sewer is air-tight is certain, but that openings through which the air escapes are often those we should least desire. It is, therefore, absolutely necessary to provide means of exit of foul and entrance of fresh air, and not to rely on accidental openings. The air of the sewer should be placed in the most constant connection with the external air by making openings at every point where they can be put with safety."

No language could be stronger than this; it is an absolute and unreserved condemnation of the very system pursued at Clifton and defended in the letter before us.

Parent Duchatelet, "the father of modern hygiene", is also brought forward as a witness on the same side, a man who insisted that sewers were to be regarded as elongated cesspools. He devoted a whole chapter of his classical essay, "Sur les cloaques ou égouts de la ville de Paris", to the consideration of the different kinds of smells peculiar to sewer air; and, referring to certain sewers of which the openings were free and very numerous, he says that they were "les seules qui, dans Paris, offrent cette perfection dans leur construction"! (*Hygiène Publique*, vol. i, p. 227.)

There are other points in this letter to which space does not allow us to refer, but we must express our regret that Mr. Davies, who has done so much for the cause of sanitary science, and to whose energy Bristol owes many a debt of gratitude, should have taken up so erroneous a position, the defence of a plan which places the houses of Clifton on the top of a system of unventilated sewers, one of the most perilous situations that can be imagined.

THE DIAGNOSIS OF BLOOD-STAINS.

THE *American Journal of the Medical Sciences* for July contains a paper, by Dr. Joseph G. Richardson of Pennsylvania, on the Value of High Powers in the Diagnosis of Blood-Stains, as a sequel to a former paper on the same subject in that journal for July 1869. He then stated that the residuum of a dried blood-clot left after the action of pure water, long mistaken by Virchow, Robin, and others, for pure fibrin, was composed chiefly of the cell-walls of the red blood-corpuscles, and that, by proper management, these capsules of the red discs could be brought clearly enough into view, to enable him to measure them accurately, and so distinguish the dried blood of man from that of an ox, pig, or sheep, with a certainty disputed by previous observers. He regards this theory of the possession of a cell-wall, deduced chiefly from experiments upon the gigantic blood-discs of the Menobranchus, which are nine times as large as human ones, in which crystals of hæmato-crystallin were seen to prop out of a visible membranous capsule, as the foundation of his success in recognising and measuring blood-discs. The experiments of Owsjanniskow and Dr. Roberts, and the examination of blood-discs upon a dark ground, tend to confirm Dr. Richardson's views. The conclusions then published have not yet met with general acceptance; and a considerable part of the present paper is occupied with answers to theoretical objections. In the course of the argument, he aptly compares various sized blood-discs to shot of different sizes (numbers). It is to be remembered that, whilst the relative differences between corpuscles of human, ox, and sheep's blood remain the same, the absolute difference becomes more perceptible in proportion as the discs are magnified, so that when the former appear nine-eighths of an inch, and the latter five-eighths of an inch across, they can hardly be mistaken for one another.

Among one hundred freshly drawn red corpuscles, from five different persons (three white males, one white female, one black female), the average of mean diameters was $\frac{1}{3378}$th of an inch. The measurement of twenty corpuscles from part of the first of these specimens, hastily dried in a thin film upon a slide, gave a maximum of $\frac{1}{2800}$, a minimum of $\frac{1}{3621}$, and a mean diameter of $\frac{1}{3182}$th of an inch. It can be shown that the smallest of human red discs, whether dried or fresh, are larger than the largest corpuscles of an ox, or, *à fortiori*, of a sheep.

Professor Wormley brought Dr. Richardson a slide of human blood, upon which were seven corpuscles, designated by numbers on a drawing. Dr. Wormley's measurements gave an average of $\frac{1}{3230}$ of an inch; whilst Dr. Richardson's, with $\frac{1}{25}$ immersion-lens, gave an average of $\frac{1}{3200}$ of an inch; whilst some of the measurements (made independently) were identical. Virchow's objections he meets by stating that contraction in drying only increases the differences between the red discs of oxen, horses, pigs, sheep, deer, and goats, and those of man, since all the above are much smaller. But all theory is now practically set aside, inasmuch as Dr. Richardson has solved the question so far by experiment. Professor J. J. Reese and Dr. S. Weir Mitchell sent him three samples of blood, on paper, from ox, man, and sheep, simply numbered 1, 2, and 3, with no clue to their origin. No. 1 was treated as follows. Some small particles were broken up into a fine dust with a sharp knife upon a glass slide, and treated with a solution of common salt, containing 0.75 per cent.; after covering with thin glass, this was then absorbed at one end by blotting-paper, whilst fresh was added from the other end—thus washing away all colour. Then aniline was added, and in its turn washed away by salt. The specimens Nos. 2 and 3 were similarly treated, and all examined under $\frac{1}{25}$ immersion-lens, giving, with the A eye-piece, a power of 1250 diameters. Ten of the most perfect discs in each were examined, giving the following results. Dr. Richardson gives all the measurements in the original.

No. 1......Minimum, $\frac{1}{3572}$; Maximum, $\frac{1}{3125}$; Mean, $\frac{1}{3407}$.
No. 2...... ,, $\frac{1}{4878}$; ,, $\frac{1}{4444}$; ,, $\frac{1}{4694}$.
No. 3...... ,, $\frac{1}{6666}$; ,, $\frac{1}{5405}$; ,, $\frac{1}{5828}$.

Now Gulliver's measurements are $\frac{1}{3200}$, $\frac{1}{4267}$, and $\frac{1}{5300}$ for human, ox, and sheep's blood respectively, and his own experiments had prepared him for slight contraction; he therefore decided that No. 1 was human, No. 2, ox's, No. 3, sheep's blood, which was so.

Three other specimens were treated with liquor iodinii compositus, with these results: No. 1, a mean of $\frac{1}{4062}$, No. 2, of $\frac{1}{5952}$, No. 3, of $\frac{1}{3430}$ for ten measurements. The conclusions were that No. 1 was ox's blood, No. 2, sheep's blood, No. 3, human blood, which again proved correct.

Dr. Richardson says that Robin's favourite solution of sulphate of soda is too prone to crystallise, and often contains large quantities of a peculiar fungus, the spores of which closely resemble human blood-discs. He thinks no fluid equal to the 0.75 per cent. solution of chloride of sodium. Fragments scraped from the edges or thinnest parts of the blood-stain are best, as freest from fibrin. A fragment from a blood-stain prepared in May 1869, after five years, could still be distinguished from those of ox and sheep; and the mean of ten measurements gave $\frac{1}{3425}$ of an inch—the corresponding average five years ago being $\frac{1}{3474}$ of an inch.

He concludes, therefore, that the results of the above experiments prove, that since the red blood globules of the pig ($\frac{1}{4230}$), the ox ($\frac{1}{4267}$), the red deer ($\frac{1}{4324}$), the cat ($\frac{1}{4404}$), the horse ($\frac{1}{4600}$), the sheep ($\frac{1}{5300}$), and the goat ($\frac{1}{6366}$) of an inch, are all so much smaller than even the ordinary minimum size of the human red disc, as measured by him, we are now able, by the aid of high powers of the microscope, under favourable circumstances, to positively distinguish stains produced by human blood, from those caused by the blood of any of the animals just enumerated, and this even after the lapse of five years from the date of their primary production. This question is one eminently deserving the attention of English medical jurists and microscopic observers. It can be no longer possible to ignore these interesting researches of Dr. Richardson. We would, however, earnestly caution that no opinion should be given unless founded upon measurements of several blood-discs, and after much practice with the micrometer and the power employed.

A MONUMENT has been erected in the parish church of Wrexham in memory of Surgeon M'Carthy and the officers and privates of the 23rd Royal Welsh Fusiliers, who fell during the Ashantee war.

DR. GUY, President of the Statistical Society, in his inaugural address on Monday, stated that there had been no competition for the Howard Medal. The subject for competition was the Condition of Prisoners in England and Wales during the latter half of the Eighteenth Century.

WE understand that Dr. Lyttelton Stewart Winslow is about to resume the publication of the *Journal of Psychological Medicine*, edited by his father for sixteen years. It is to be published twice during the year; and the expressed intention of the new editor is to give to the journal a practical rather than a theoretical character.

AT a Session of the Council of University College, on Saturday, November 7th, a free medical scholarship was granted to Mr. Bilton Pollard, on the nomination of the Council of the Royal Medical College, Epsom. Medical Entrance Exhibitions of £30, £20, and £10 respectively, tenable for two years, were, on the report of the Examiners, awarded to Mr. William Banks of Falmouth, Mr. James Isaac Paddle of Mauritius, and Mr. W. Rushton Parker of Bournemouth.

UPON a recent vacancy, by effluxion of time, in the office of Surgeon-Accoucheur to the Sheffield Public Hospital and Dispensary, the governors at a special general meeting decided that, inasmuch as there was now a Hospital for Women in Sheffield, midwifery belonged to it; and therefore midwifery should be discontinued at the Hospital. No Surgeon-Accoucheur was consequently elected; but Dr. Mason, the late holder of the office, was thanked for past services.

THE PROPOSED HOSPITAL AT HAMPSTEAD.

A VERY strong opposition to the scheme which has been sanctioned by the Metropolitan District Asylum Board, concurrently with the Local Government Board, for converting what was the temporary small-pox hospital at Hampstead into a permanent one for contagious patients, has been set on foot. The plan proposed by the Local Boards is described as one which would convert one of the healthiest suburbs of London into a hotbed of disease; and it is also affirmed that, by means of the Fleet Ditch, contagion would be disseminated throughout London; and that Professor Tyndall's opinion was largely in support of this view. A committee of the medical men, gentry, and inhabitants of Hampstead and the neighbourhood, has been formed for the purpose of organising a systematic opposition to the scheme.

THE LATE DR. EDWARD SMITH, F.R.S.

WE much regret to have to record the death of Dr. Edward Smith, Assistant Medical Officer to the Local Government Board. Dr. Smith has been suddenly cut off in the prime of life. He was a man of great bodily and mental vigour, and had recently been much occupied in useful literary work in addition to his official labours, which were not lately of an exacting nature. Dr. Edward Smith will be remembered scientifically by his laborious contributions to biological science, in respect to the action of alcohol, of tea, and other articles, and of exertion, etc., on pulsation and respiration. His contributions to the science of dietetics were valuable; his researches on the dietary of Lancashire, undertaken for the Privy Council at the instance of Mr. Simon in 1862 and 1863, have helped to furnish permanent standards for subsequent reference. Medically, Dr. Edward Smith met with little success in practice, nor did he contrive to conciliate the affection of his colleagues; hence his career, first at the Charing Cross Hospital and subsequently at the Brompton Hospital, was chequered with some disappointments. Every one felt, however, that his appointment as Poor-law Inspector, and subsequently as Medical Officer of the Poor-law Board, one of the latest acts of Mr. Villiers's administration, was in all respects creditable to the Government and due to the labours and capacity of Dr. Edward Smith. He showed in his new office characteristic industry and decision of character. Unfortunately, however, here also his labours were occasionally marred in their fulness of utility by an untoward turn. The attitude which he assumed towards the authors of the disclosures and the suggestors of the reforms which culminated in Mr. Hardy's Act, was one of antagonism. He entered into public controversy with Mr. Hart on the subject of cubic space, and he endeavoured unsuccessfully to combat the suggestions in Mr. Hart's papers on the Hospitals of the State—which became afterwards the programme of the Workhouse Infirmaries Association, and were subsequently embodied in Mr. Hardy's Act—by a counter scheme of shreds and patches which gave satisfaction to no one. Rightly or wrongly, Dr. Edward Smith's attitude in this matter did not inspire confidence either in the Government, on the one hand, or in the public and profession, on the other; and the appointment of Dr. Markham as a special medical inspector for the metropolis was interpreted as a sort of supersession of Dr. Edward Smith in an important part of his functions of medical adviser of the Board. His energy and capacity, however, were too great to be damped or suppressed, and his subsequent publications on the *Principles of Dietary and Construction of Workhouses*, and his labours in connection with provincial infirmaries, were both considerable and useful. The rather anomalous character of the position created for him at the Poor-law Board was increased by the measure of amalgamation which converted the Poor-law Board into the Local Government Board, and made it the centre of sanitary work, while it attached to the Board the staff of which Mr. Simon is the distinguished chief. Dr. Edward Smith, as medical adviser of the Local Government Board, which had besides a special medical adviser in Dr. Bridge and a superior medical officer in Mr. Simon, with a disciplined and accomplished staff, occupied a position of which the full anomaly was seen when, although holding a limited relation to the Poor-law Department only, he at once, with characteristic promptitude, occupied his leisure by compiling and putting forward two semi-official manuals for medical officers of health and for inspectors of nuisances, which bore his imprint as Medical Officer of the Local Government Board, and so gave natural offence. This did not limit his literary work, for he contributed at about the same time an excellent volume on *Food* to the International Scientific Series, and issued a popular book on *Health*, which we have not seen, but which we have heard well mentioned. On the whole, Dr. Smith must be remembered honourably as a man who raised himself by his undaunted exertions to a position of prominent credit and official activity, and whose contributions to science and to the literature of hygiene have, as a whole, however liable to individual exception, aided the progress which the nation has of late years been slowly making to a clearer perception of the importance, and a better knowledge of the means, of preventing disease and preserving the public health.

A CASE OF EMERGENCY.

A WOMAN recently cut her throat; and, seeing that she would bleed to death unless she were promptly attended to, Dr. Turner, the medical officer of the Chelsea Board of Guardians, ordered her immediate removal to the infirmary; and for this prompt action, and the only proper course open to him, the guardians termed his conduct reprehensible. Dr. Turner naturally expressed surprise at that treatment, and remonstrated with the guardians for such remarks; and it is gratifying to know that in the end that body "decided that the Doctor's letter of explanation was perfectly satisfactory".

NEW FORM OF MEDICAL CERTIFICATE.

THE Registrar-General has issued a new form of medical certificate of the cause of death to be used by registered medical practitioners, under the Births and Deaths Registration Act, 1874. In a memorandum prefixed to the forms, Major Graham states that, the heads of the medical profession having from the first taken the deepest interest in the administration of the Registration Act as regards the record of the cause of death, he has submitted the form of certificate contained in this book to H. W. Acland, M.D., F.R.S., President of the General Council of Medical Education and Registration; Sir George Burrows, Bart., M.D., F.R.S., President of the Royal College of Physicians; T. Blizard Curling, Esq., F.R.C.S., F.R.S., President of the Royal College of Surgeons; and Richard Stocker, Esq., Master of the Society of Apothecaries. The form of certificate has met with the approval and sanction of these eminent authorities. The registrars have been instructed, in conformity with the provisions of the Act of 1874, to accept certificates from registered practitioners only, for whose use exclusively these books are issued. The Royal College of Physicians having some time since nominated a Committee to draw up a complete nomenclature of diseases, a list has been compiled from it of the diseases of most common occurrence, in the hope that the names may be generally adopted by practitioners in returning the causes of death.

THE TIMES AND THE MANNERS.

THE stolid apathy and indifference with which men habitually regard or disregard familiar dangers is marvellous, and, were it not so common, would be incredible. We have time after time drawn attention to the, we might say, pestiferous sanitary state in which the majority of our towns are. In looking over the medical officers' reports from all parts of the kingdom, the phrases "open sewers, privies, and cesspools", "overcrowding", "contaminated water", are iterated and reiterated *ad nauseam*. The authorities of Over-Darwen and Lewes were advised of the unwholesome condition of their respective towns long ago. Now that the natural consequent of filth, etc., has occurred, there is great outcry and much lamentation. Pope's lines, indeed, seem to be as applicable to filth and sewage as they are to vice. The denizens first endure, then pity, then embrace it. Occasionally, an epidemic occurs in the very natural course of events; the town attacked is looked upon and talked about much as a nine days' wonder is; and the moral which ought to have been inculcated is forgotten within that time. Has any practical good resulted from the recent sacrifice of life at New Quay? Has the publicity which we gave not long since to Lostwithiel and its surroundings been productive of an improvement in the sanitary condition of that town and neighbourhood? The same questions could be asked of fifty other towns, which may be aptly described as hot-beds of fever; and we venture to say the answer would be commonly "No". The lesson of New Quay is forgotten, and as speedily, we fear, will the lessons of Lewes and Over-Darwen be forgotten; and local authorities will again slumber on in apathy on the brink of their various volcanos, utterly careless of the nature of the waking up to which they are liable, and will then plead doubt, the rival merits of conflicting schemes, the advisability of waiting till the "sewage question" is settled, before going to expense.

HOSPITAL SATURDAY.

THE report of the Hospital Saturday Fund has now been published. It shows that a total of £6,000 has been collected at an expense of over £1,500. The boys in fancy costume who were sent about the streets with collecting-boxes obtained, we are told, on an average seven shillings each; so that the uniform and the cost of the box must have swallowed up the whole proceeds obtained in this way. We have already pointed out that the collection was conducted in a manner which must always carry with it great expenses, and the figures given above fully justify this statement. On the whole, the results of the movement cannot be satisfactory to its promoters, even after making all due allowance for the difficulty of inaugurating a new scheme. To us, the reasons for this comparative failure are obvious. If the council of the Hospital Saturday Fund had been guided by wiser councils and opinions, a somewhat different direction would have been given to the movement. It has proceeded throughout upon a principle which cannot be admitted, in justice to the public or the working men; viz., that the hospitals are intended for "the working classes". This broad and unqualified statement is very far from representing the true state of the case. The hospitals are for the benefit of the necessitous and really poor. The "working class" is a large and comprehensive term. Some of its less thrifty, less skilled members may, perhaps, be considered fit applicants for the out-patient departments, and, in cases of severe illness or of accident, the wards may very properly be opened to a still larger number. But we cannot give our sanction to any arrangement by which the working classes, as a whole, are encouraged to rely upon hospital treatment in ordinary ailments. To do so would be to inflict dishonour on the independent and honourable class of industrial workers, and a great injury upon that large and hard-working body of general practitioners whose business lies more or less among the lower middle stratum of society. We sincerely hope that, before the time has arrived for another collection, the Council of the Hospital Saturday Fund will have duly weighed the comments which we and our contemporaries have made upon the movement, and that they will so far modify their plans as to give a wiser direction to the laudable desire of self-help which appears to be springing up among the working classes, and of which we would fain hope Hospital Saturday has been in some sort an indication.

THE CORONERSHIP FOR CENTRAL MIDDLESEX.

THE election for this post took place on Thursday last, and resulted in a complete victory for the medical candidate. Dr. Diplock had withdrawn from the contest on the previous day in favour of Dr. Hardwicke, whose position against his legal opponent was doubtless thereby greatly strengthened. The polling commenced at eight o'clock in the morning, and Dr. Hardwicke from the first headed the poll. At four o'clock the numbers were stated to be as follows: for Dr. Hardwicke, 1164; for Mr. J. Boulton, 818; majority for Hardwicke, 346. At about half-past four o'clock, Dr. Hardwicke drove to the polling-place in Park Crescent, Marylebone, where he was greeted by the cheers of his supporters, whom he addressed. He thanked them for the support which had been so generously accorded him, and which had placed him in the proud position of Coroner for Central Middlesex, and promised to perform faithfully the duties of his post. We congratulate Dr. Hardwicke on the result of the election; but we trust that we have now seen the last occasion when the freeholders of the county will be called upon to elect a coroner.

CREMATION.

THE Siemens furnace, which was used in the cremation of the body of the late Lady Dilke, has been employed again. The body was that of a lady, the wife of a German physician. The operation is described as being free from anything offensive either to the senses or the imagination. The current of hot air burning up the body appeared as a transparent flame of a pale reddish hue. There was no smoke or any unsightly transformation of the body. When the coffin was consumed, the body appeared in its natural state, then red hot, and at last appeared to be of translucent white. From this it crumbled into ashes. Up to the period of its entire consumption by the flames, the process was merely a rapid drying up. After seventy-eight minutes, all organic matter was gone, and nothing remained but a small heap of ashes, which was conveyed away in an urn.

THE NEW IRISH BRANCH.

WE print in another column the report of the preliminary meeting, at which a Branch of the British Medical Association was constituted by the medical practitioners of Cork and its vicinity. The number of members of the Association residing in Ireland is considerable; but they have not hitherto derived the full benefits of the Association, owing to the fact that they have not formed themselves into those local Associations or Branches in which alone can the objects of the Association be fully cultivated, and by which alone can its benefits be fully realised. The objects of the Association are local at least as much as they are imperial; it aims at "the maintenance of the honour and respectability of the profession generally throughout the United Kingdom, by promoting friendly intercourse, free communication of its members, and by establishing among them the harmony and good feeling which ought ever to characterise a liberal profession". It is by the formation of district centres of union, for the purpose of social and scientific meeting and discussion, that these objects can all be fully attained. We hail, therefore, with much satisfaction the formation of the new Branch, which will probably be followed before long by others of not less local importance.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE ordinary general meeting was held in the library of the Royal Medical and Chirurgical Society, on Friday, October 30th. The President, Sir George Burrows, Bart., was in the chair. The half-yearly statement of accounts was read, showing receipts for the half-year amounting to £1575:19:7, and expenditure £1388:9:3. A sum of £1133:10:0 had been distributed to fifty-eight widows, £119 to twenty-four children, and £24:10:0 from the Copeland Fund to four children variously afflicted, and totally unable to support themselves. A special grant of £10 had been made at the annual meeting to the grown-up daughter of a deceased member. The expenses for the half-year had been £101:19:3. On the recommendation of the Court of Directors, William Tiffin Iliff, Esq., was elected a Vice-President in the place of John Miles, Esq., deceased. A vote of thanks to the Chairman closed the meeting.

THE COST OF DISEASE IN SHEFFIELD.

"THE Value of Health" was the subject of a lecture delivered on November 3rd by Dr. Hime at the School of Art, and in treating it he made some very interesting statements relative to the prevalence of disease in the town. Referring to the great advance which had been made in sanitary science, he alluded to the expense of disease in Sheffield; he assumed the cost incurred by a sick man to be two shillings per day, and affirming that a working man earned five shillings per day when in good health, a very serious loss occurred when he had to spend the former amount in consequence of sickness. The average number of sick days per head of the population was from 19 to 20. Sheffield had a population of 270,000, and reckoning 20 sick days for each person, 5,400,000 sick days were obtained, which, at 2s. per day, represented a cost of £540,000 per year. The average mortality in Sheffield for three years had been 27 per 1,000, which, in a population of 270,000, gave 7,344 deaths per year; and if the proportion of cases to deaths in the hospital was the same as that in the town, almost the same number of sick days would be the result. The mortality in Sheffield was at the rate of 27 per 1,000, compared with 22 per 1,000 in London. The present rate of 27 per 1,000 gave 7,344 deaths in Sheffield annually; but, if the rate of mortality were only 22 per 1,000, the number of deaths would be reduced to 5,940, and the saving of 1,404 lives thus effected would result in the saving of £88,303 per year. The loss to the town by deaths from fever was at least £20,230 for the three years, in which 691 deaths had resulted from that disease, but that calculation did not include the cases of fever which had not proved fatal. The lecturer pointed out the great necessity which existed for the establishment of an infectious hospital in the town. He said that very injurious effects were produced by polluted soil, inasmuch as currents of air forced through it by ordinary physical laws passed into the houses erected upon or near it, and spread disease amongst the dwellers therein. He also spoke of the connection between ground-water and fever, and expressed a hope that the Town Council would make an investigation into these matters, which were very important to the health of the people.

PAY AND EMOLUMENTS OF ARMY MEDICAL OFFICERS.

A VERY elaborate and exhaustive article on the pecuniary value of the pay, emoluments, and pensions of army medical officers has appeared in this month's number of the *Edinburgh Medical Journal*. It is from the pen of Surgeon-Major F. De Chaumont, Assistant-Professor of Hygiene at the Army Medical School. So many letters have been written on the pay and emoluments of army surgeons, and such very different statements on these subjects have been published, that a reliable account of them in detail, and a complete estimate of their value from the actuary's point of view, is a very acceptable contribution at the present time, when so much attention is being given to the grievances of our army professional brethren. Dr. De Chaumont's calculations are not limited to the present rates of pay and allowances; but he furnishes comparative tables of these as they are under the existing warrants, with the values of the emoluments, prospects, and pensions of army medical officers as they were under the warrants of 1804 and 1840. We propose to give an analysis of the whole paper at an early date.

PROPOSED TESTIMONIAL TO DR. A. P. STEWART.

Dr. Stewart having in July last retired from the honorary secretaryship of the Metropolitan Counties Branch, after having held the office for seventeen years, a number of his friends and colleagues have considered the occasion a fitting one for marking their sense of the valuable services which he has rendered to the Association and the profession generally. It must be well known to a large number of our members that Dr. Stewart has been for many years a most active and useful member of the Council of the Association; and that, in his position as Secretary of the Metropolitan Counties Branch, he has taken not merely an official, but a lively interest in its work. A meeting of members of the Association was held a fortnight ago at the house of Dr. Sibson—T. B. Curling, Esq., F.R.S., President of the Metropolitan Counties Branch, in the chair—at which it was proposed by Sir William Fergusson, Bart., F.R.S., seconded by Dr. William Farr, F.R.S., and resolved unanimously—

"That a testimonial be presented to Dr. A. P. Stewart, in recognition of his great services to the medical profession and the public during the seventeen years that he has held the office of Honorary Secretary of the Metropolitan Counties Branch of the British Medical Association."

It was resolved unanimously, on the motion of Mr. Watkin Williams (Birmingham), seconded by Dr. Farquharson—

"That T. B. Curling, Esq., F.R.S., be the President of the General Committee of the Stewart Testimonial Fund; that Dr. Sibson, F.R.S., be Treasurer; and Mr. Fairlie Clarke and Dr. Ford Anderson, Honorary Secretaries of the Fund."

An Executive Committee was also appointed, on the proposal of Dr. G. Webster, seconded by Dr. A. Henry; to consist of the President of the General Committee, the Treasurer, and Secretaries; Dr. Heywood Smith; Dr. Tweedie, F.R.S.; R. Dunn, Esq.; Dr. A. Henry; W. H. Michael, Esq.; Sir William Fergusson, Bart., F.R.S.; T. Watkin Williams, Esq. (Birmingham); Dr. R. Farquharson; Dr. Cooper Rose (Hampstead); C. G. Wheelhouse, Esq. (Leeds); Dr. Eason Wilkinson (Manchester); Dr. Falconer (Bath); Dr. Begley (Hanwell); with power to add to their number. The meeting was also addressed by the President, Dr. Sibson, Mr. Michael, and Mr. Dunn; who, as well as the other speakers, most cordially approved of the object in view. The subscription-list contains not only the names of members of the Branch, but those of the President and Vice-President, and other members of the Association in various places. The total amount as yet promised is nearly £400. Members desirous of contributing are requested to send their names and subscriptions to Dr. John Ford Anderson, 28, Buckland Crescent, Belsize Park, N.W.; or W. Fairlie Clarke, Esq., 12, Mansfield Street, Cavendish Square, W.

LEPROSY IN CANADA.

We learn from the *Toronto Globe* that a chronic epidemic of leprosy prevails in New Brunswick. In the village of Tracadie, near the mouth of the Miramichi river, there have been lepers for the last eighty or ninety years, with a hospital for their benefit, supported by the local government, and managed by the parish priest and four nuns from Montreal. The leprosy from which the poor people in Tracadie suffer is stated to be *elephantiasis Græcorum*. The disease is understood to have been brought to the place about ninety years ago through a French vessel being wrecked there. According to some accounts, it had leprous clothing and stores, which had been taken on board from a village in the island of Mitylene; according to others, the vessel brought two lepers, from whom every leper in Tracadie is lineally descended. The opinion in the neighbourhood is, that the disease is not infectious, but merely hereditary. At any rate, persons have been engaged about the lepers in Tracadie for years without contracting the disease. Not only do the leprous people marry among themselves, but the feeling among the poor French in Tracadie is such, that there is no repugnance in many cases among perfectly healthy people to taking lepers for husbands or wives. The taint generally manifests its appearance in every alternate generation. In this way, the disease has become permanently seated in the locality. The duration of the disease from its first appearance varies from five to twenty-five years, according to strength of constitution. Whatever doubt there may be about the contagious character of the disease, every precaution is taken to prevent infection in the Lazaretto. At the time when the writer who supplies these facts visited Tracadie, there were twenty-one patients in the hospital. It would seem that leprosy is on the increase in many of the British dependencies. In some parts of India, one person in every hundred is a leper; and in some parts of the West Indies, as well as in the Sandwich Islands, this disease is also very prevalent. It is generally thought that leprosy is perfectly incurable, and the few instances usually quoted to the contrary confirm rather than otherwise the current opinion. The only thing which, apparently, can be done, is to mitigate the evil by scrupulous cleanliness and great attention to diet.

"MENTAL STARVATION."

At an inquest held on the 12th instant on the body of a female prisoner, at Tothill Fields House of Correction, Dr. Lavies, the prison surgeon, stated that he had noticed for some time past that the woman was gradually wasting away; and, believing her life to be in danger, he had, in four different written communications to the visiting justices, recommended her release. No notice was taken of his representations, and the woman died in prison. The *post mortem* examination showed the lungs and internal organs generally to be free from disease. He had no doubt the death of the woman was due to general debility, produced by mental anxiety; death had been caused by "mental starvation". The woman's life would have been saved had she been discharged from prison upon his recommendation in November 1873. The coroner adjourned the inquiry, in order that any person who might feel aggrieved by the statement made by the surgeon should have the opportunity of attending and giving an explanation.

SCOTLAND.

THE LORD RECTORSHIP OF THE UNIVERSITY OF GLASGOW.

The result of polling for the election of a Lord Rector for the ensuing year was, that Mr. Disraeli was re-elected by a majority of 200 over Mr. Emerson, the only remaining candidate out of the three that started. The votes were, for Mr. Disraeli, 700; for Mr. Emerson, 500. Great excitement prevailed during and after the polling. One of the "tellers" protested against votes being taken for Mr. Emerson on the ground of his being an alien. Two professors, also, it was stated, drew attention to the same question. If this be a valid and fatal objection, it certainly ought to have been made known to the electors before their candidate was put up.

PROPOSED COLLEGE IN DUNDEE.

Principal Tulloch of St. Andrew's, in a recent conference with Provost Cox and Mr. Henderson of Dundee, on a proposal to erect a College for that town, to be affiliated with the University, decided that, for the present, a scheme was impracticable on account of the enormous expense which it would entail, £150,000 at least. In the meantime, courses of lectures under the auspices of the University were arranged to be delivered in Dundee.

THE MEDICAL ACT.

An important decision on the Act was given by the Deputy Sheriff of the Dumfries Court on the 16th instant. John Aitken, physician and surgeon of Lochmaben, complained that Thomas Barrett Stokoe, of Lochmaben, had contravened the Act in granting a certificate of death with the title of "M.D." added after his signature, rendering him liable to a penalty not exceeding £20. The case had been partially heard before, and an adjournment granted, that Dr. Robertson, an American physician now in London, might attend and give evidence.

A letter from Dr. Robertson was put in, asking for a further adjournment to January next, to enable him to obtain affidavits from America in support of the evidence which he intended to give. An objection was made to the proposal on the ground that the defendant was not on the *Medical Register*. His qualifications were not questioned. The Sheriff said the case was founded on the 40th section of the Act; he had doubts as to whether the first clause and the latter clause were in harmony, but on the whole he found that the charge was proven. As it was the first case that came under his notice, he would mitigate the penalty to £2 and expenses, which amounted to £5 : 4 : 9, and failing payment within eight days, the alternative was fourteen days' imprisonment. The case excited a good deal of interest, most of the medical practitioners in town being in court.

NON-PROFESSORIAL EXAMINERS IN THE UNIVERSITY OF EDINBURGH.

AT a meeting of the Edinburgh University Court on November 9th, the following regulations for the appointment of non-professorial examiners in medicine were adopted.

"The University Court, considering that by section *quinto* of Ordinance No. 8, *Edinburgh* No. 3, of the Scottish Universities Commissioners, 1858, as altered by the Court by a resolution of date 6th July, 1874, which received the approval of Her Majesty in Council on 6th August, 1874, the Court are empowered, from and after 1st January, 1875, annually to appoint additional examiners, specially qualified in the subjects of examination for graduation in medicine, under such regulations as they may from time to time issue regarding matters not provided for in the said ordinance or alteration thereof; and further, considering that it is advisable that the persons so appointed should, under ordinary circumstances, hold office for a fixed term of years; and that other matters relative to the appointment of such persons should be made the subject of formal regulation—Resolve:

"1. That each person appointed under the said ordinance, as altered, to examine on any of the subjects requisite for graduation in medicine may, under ordinary circumstances, be reappointed annually for five consecutive years, but no more:—Provided always, that on the first occasion the persons appointed to examine on three of the subjects of examination may be reappointed annually thereto for three years; those appointed to examine on two of such subjects may be reappointed annually thereto for four years; those appointed to examine on three of such subjects may be reappointed annually thereto for five years; those appointed to examine on two of such subjects may be reappointed annually thereto for six years; and those appointed to examine on three of such subjects may be reappointed annually thereto for seven years.

"2. It shall be competent for the Court, under special circumstances, to reappoint any person to examine on any subject or subjects immediately after he has acted as examiner thereon for five consecutive years, for such further term of years as the Court may determine.

"3. No person shall be appointed to examine on two subjects which are in the same division of the examinations for graduation in medicine.

"4. Persons resident in Edinburgh shall not be expected to give in testimonials on applying for such appointments. In the case of persons resident elsewhere who may give in testimonials, not more than four testimonials shall be given in for each subject of examination for appointment to which application is made.

"5. All vacancies shall be advertised in such newspapers and medical journals as the Court may direct, not less than one month before the date at which such vacancies are to be filled up."

IRELAND.

THE PUBLIC HEALTH ACT.

A MEETING of members of the Irish Medical Association was held last week to consider matters relative to the working of this measure. After considerable discussion, it was resolved that it was with feelings of regret they observed that there appeared a disposition on the part of some local sanitary authorities to propose an insufficient amount of remuneration to the sanitary officers for the arduous, distasteful, and onerous duties imposed upon them by the statute; and they regretted that the Local Government Board had thought proper to fix a maximum, instead of a minimum, amount of remuneration. A deputation from the Irish Medical and the Poor-law Medical Officers' Associations, accompanied by several medical officers of the city dispensaries, afterwards waited on the President and Fellows of the College of Physicians, to request their assistance in bringing the subject of the remuneration of the medical officers of health under the notice of the proper authorities. It was ultimately decided that a committee should be appointed by the College to prepare a memorial for presentation to the Chief Secretary supporting the wishes of the deputation.

ULSTER MEDICAL SOCIETY.

THE annual meeting of this Society was held in the library of the General Hospital in Belfast, on the 4th instant, when the following office-bearers were elected for the session 1874-75:—*President:* Dr. Charles D. Purdon. *Vice-Presidents:* Dr. Robert Stewart; Dr. H. S. Purdon. *Council:* Drs. Core, J. W. Browne, H. M. Johnston, McCrea, Murney, and Spedding. *Honorary Treasurer:* Dr. Fagan. *Honorary Secretary:* Dr. J. J. Charles.

MALAHIDE GRAVEYARD.

AN inspector from the Local Government Board held an inquiry at Malahide on the 16th instant in reference to a petition presented to that Board by Lord Malahide, praying for the closing of the cemetery owing to the overcrowding of the place. Two resident medical men, with Dr. Cameron, Dr. Davys, etc., gave in evidence that the graveyard was very much overcrowded, was prejudicial to health, and should not for many years to come be used at all. It was proved that the effluvium from it was very offensive, and that no interment could take place without disturbing a body. On the other hand, Dr. Mapother, the officer of health for Dublin, and Mr. O'Leary, M.P., contended that they could not observe any signs of the graveyard being prejudicial to the public health. The latter witness believed that there was room in it for a hundred more graves, whilst Dr. Mapother thought that sixteen burials might take place without injury. The decision will lie with the Local Government Board; but, surely, in a matter where the facts are forthcoming, all competent authorities should agree.

DUBLIN HOSPITAL SUNDAY.

LAST Sunday being "Hospital Sunday", collections were made in a large number of churches in Dublin, and out of 144 places of worship which have joined the movement, returns have been received from 70 places, which show that the amount realised is £2400, several donations being included in this sum. The inclemency of the weather had considerable effect in thinning the congregations attending the city churches, and thereby diminished the amount obtained.

DUBLIN MAIN DRAINAGE.

A MEETING of the citizens was held in the Molesworth Hall on the 12th instant, to receive and consider the report of the committee appointed at the Mansion House meeting on August 11th, to ascertain whether a scheme for the purification of the Liffey might not be devised, which, while efficacious for the purpose, should be better suited than that of 1871, *i. e.*, by a system of intercepting sewers. It was finally resolved that a memorial should be presented to the Lord Lieutenant, calling upon him to use his influence with the Government to obtain the appointment of a Royal Commission to examine into the matter. It is the opinion of some, that Sir John Arnott's proposition for purifying the Liffey ought to have been tried, especially as it was offered free of expense to the citizens, and if it did not succeed no harm would have been done. Besides, Mr. Walker the engineer, whose plan it is, has tried a similar arrangement in Cork on the river Lee with success; the *Cork Examiner* of Monday stating that, "there is nothing more certain than that for the purpose for which it was intended, that of abating a desperate nuisance, the plan has been up to the present found decidedly successful". The objection urged against it is, that it may affect the navigation; but it is stated by the promoter of the project that, on examination, this objection will be found destitute of force.

THE EDINBURGH MEETING OF THE ASSOCIATION, 1875.

THE members of the Association are aware that the next Annual Meeting of the Association will be held on August 3rd, 4th, 5th, and 6th, 1875, in Edinburgh, under the presidency of Sir Robert Christison.

We are glad to be able to announce that Dr. Warburton Begbie has accepted the office of Orator in Medicine, Mr. Spence that of Orator in Surgery, and Dr. Rutherford that of Orator in Physiology.

A meeting of the profession to arrange preliminaries for organising the administrative details of the meeting, and to provide for the reception of the Association, is summoned in Edinburgh for Saturday, the 20th instant.

The circular is signed by Robert Christison, Bart., William Henry Lowe, P.R.C.P.E., J. Matthews Duncan, Douglas Maclagan, Joseph Lister, J. Warburton Begbie, Thomas Laycock, Wm. R. Sanders, William Turner, Alex. Crum Brown, Alex. R. Simpson, Benjamin Bell, D. R. Haldane, George W. Balfour, Alex. Peddie, William Cumming, Alexander Keiller, T. Grainger Stewart, Joseph Bell, John Chiene, Angus Macdonald, D. Argyll Robertson, Thomas Annandale, Thomas Keith.

The following gentlemen signed the letter of invitation, and are members of the general committee; Sir R. Christison, Dr. W. H. Lowe, Dr. J. D. Gillespie, Dr. R. D. Haldane, Dr. J. Matthews Duncan, Professor Douglas Maclagan, Dr. George W. Balfour, Professor J. H. Balfour, Professor J. Lister, Dr. Alex. Keiller, Dr. Morrison Watson, Dr. Grainger Stewart, Dr. Joseph Bell, Dr. James Sidey, Dr. T. Laycock, Mr. J. Chiene, Dr. C. E. Underhill, Dr. J. W. Begbie, Dr. Angus Macdonald, Dr. J. Bishop, Dr. J. Brown, Dr. A. Peddie, Mr. T. Annandale, Dr. W. Menzies, Dr. J. Halliday Gordon, Dr. Thomas Keith, Dr. J. Batty Tuke, Dr. Francis Cadell, Dr. J. O. Affleck, Dr. George Beatson, Dr. John Duncan, Dr. William Cumming, Dr. James Cumming, Dr. James Young, Professor Alex. R. Simpson, Dr. David J. Brackenridge, Dr. Jas. Carmichael, Dr. D. Argyll Robertson, Mr. Benjamin Bell, Dr. John Saundby, Dr. Wm. Ziegler, Dr. James Ritchie, Dr. John Playfair, Dr. James Dunsmure, junr., Dr. Andrew Smart, Dr. R. Peel Ritchie, Dr. James Andrew, Dr. John Burn, Dr. Thomas A. G. Balfour, Dr. Wm. Stephenson, Dr. John Linton, Dr. David Gordon, Dr. James Cappie, Dr. Wm. Gordon, Dr. John G. M'Kendrick, Dr. F. W. Moinet, Dr. D. R. Black, Dr. William Husband, Dr. J. R. Hardie.

SOUTH OF IRELAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

AT a preliminary meeting of the medical profession in Cork, held on the 3rd instant, in the Royal Cork Institution, Dr. W. JACKSON CUMMINS in the Chair, the following resolutions were passed.

It was proposed by Dr. RINGROSE ATKINS, seconded by Dr. H. M. JONES, both members of the Association, and carried unanimously:

"That, as more than the requisite number of names to form a Branch Association has been laid before the meeting, such a Branch be now formed, and that notice of its formation be sent to the General Secretary of the Association in London, with a list of the names of members."

Dr. Jones read a letter from the General Secretary, promising to give the Branch all the Assistance in his power, and giving instructions regarding its formation.

It was proposed by Dr. J. G. CURTIS, seconded by Dr. CREMEN, and carried unanimously:

"That the following temporary officers be elected prior to the general opening meeting: Dr. Thomas Gregg, President; Dr. Cummins, Vice-President; Dr. Jones, Secretary; Dr. A. O'Connor, Treasurer."

It was proposed by Dr. A. O'CONNOR, and seconded by Dr. F. SMYTH:

"That a notice of the formation of the Branch, and the date of the opening meeting to elect permanent officers and form by-laws, be forwarded to those members of the medical profession who had not been already invited to join."

The following gentlemen have already joined the Branch: Dr. Atkins, Cork; Dr. Adderly, Cork; Dr. Bishop, Kinsale; Dr. Berry, Mallow; Dr. Garde; Dr. Hadden, Bandon; Dr. Hayes, Tralee; Dr. Jones, Cork; Dr. Bricknell, Queenstown; Dr. Cremen, Cork; Dr. Cummins, Cork; Dr. Cooper, Bandon; Dr. Curtis, Cork; Dr. Day, Passage; Dr. Donovan, Skibbereen; Dr. Dwane, Cloyne; Dr. Eames, Cork; Dr. Gregg, Cork; Dr. Golding, Cork; Dr. Hobart, Cork; Dr. Magill, Cork; Dr. Nunan, Kinsale; Dr. O'Reilly, Lismore; Dr. A. O'Connor, Blackrock; Dr. Ryan, Midleton; Dr. R. U. Ronayne, Youghal; Dr. Sisk, Fermoy; Dr. Scott, Queenstown; Dr. Smyth, Cork; Dr. Swanton, Bantry; Dr. Grattan, Cork; Dr. Cagney, Charleville.

The opening meeting of the Branch was held on Saturday last, the 14th instant.

THE CONTAGIOUS DISEASES ACTS.

THE operation of these Acts includes the following seventeen towns:—Portsmouth, Devonport, Sheerness, Chatham, Woolwich, Aldershot, Windsor, Shorncliffe, Colchester, Greenwich, Winchester, Dover, Canterbury, Deal, Maidstone, Gravesend, and Southampton. It is not, as might be supposed, in the hands of the local police of the districts, but is entrusted to a staff of men and officers specially selected for the duty from the Metropolitan Police Force. The report lately presented to the Houses of Parliament, from the commissioner of the police of the metropolis, dated March 1874, is the latest official information on the subject. In this Blue Book, we have a summary of the operations of the Acts since their commencement, and detailed information of the results of the past year (1873), all of which are conclusive evidence of their beneficial influence in checking prostitution in the protected districts. For full particulars, we must refer our readers to the report itself. The following extracts will afford some general information as to the nature of its contents.

The common women in the several places subject to the Acts have attended medical examination with even greater regularity than during the preceding year, the average number of examinations being 21.46.

The police specially employed under the Acts have discharged their duties much to the Commissioners' satisfaction, and not a single instance of excess or violation of duty has been reported. The Acts have, nevertheless, been fully enforced, and all women following the calling of prostitutes have been placed on the register, if they persisted in pursuing that course of life after being cautioned by the police. During the year, 1,568 women have been registered for the first time, chiefly coming from unprotected districts; yet, notwithstanding this influx of "new-comers", the number of common women remaining on the register at the end of the year was 169 less than in the preceding year.

In 5,871 cases, women signed the voluntary submission form; in 62 cases, applications for summonses were made for non-submission; but in only 33 cases was it necessary to obtain a magistrate's order to bring these women within the provisions of the Acts. In 174 cases, proceedings were taken for neglecting to attend medical examination after signing the voluntary submission form on receiving a magistrate's order form to attend.

The dread of being brought under the operation of the Acts has in many instances a deterrent effect upon girls who as yet stand upon the border-land between levity and degradation, and tends to diminish the number of women on the register. One hundred and seventy-nine young girls between the ages of 12 and 18, and 117 women between the ages of 18 and 30, found in bad company and improper places by the police have been rescued from entering upon a course of vice.

The number of brothels has been reduced this year by 17, showing a total decrease of 593 brothels that have been suppressed within the protected districts since the Acts came into operation.

Clandestine prostitution has been greatly reduced, no woman being able to misconduct herself for any lengthened period without being cautioned by the police. The presence, too, of the officers employed is well known to the class of girls most likely to go astray, and the dread of detection is very salutary.

Of 2,085 women remaining on the register for the previous year, and therefore previously subjected to the operation of the Acts, only 172, or 8.25 per cent., were found to be diseased, whilst, of 1,904 women registered and examined for the first time, 701, or 37.93 per cent., were found to be diseased.

There appears to be a greater regard to personal neatness, and an unwillingness to outrage public decorum by coarse language, indecent behaviour, or other unseemly conduct, in the streets. This is openly testified to by respectable tradesmen.

Dartmouth, which, before the extension of the Acts, sent more diseased prostitutes into Plymouth than any of the other towns in the neighbourhood, is now free from disease, not a single case having occurred amongst the women during 1873. Only one woman was brought on the register during the year. She was free from disease; has been reclaimed, and is now doing well in service.

The following is a summary of the numbers for the year 1873.

Women remaining on the Register, December 31, 1872	2,290
Registered during 1873	1,904
Total	4,194
Cases removed from the Register during 1873:	
Left in the District	1,014
Married	72
Entered Houses	200
Returned to Friends	750
Died	37
Remaining on Register December 31st, 1873	2,121
Total	4,194

THE MEDICAL COUNCIL.

A meeting of the Executive Committee of the Medical Council was held on November 12th. It was resolved that Drs. A. W. Barclay, J. S. Bristowe, W. Leishman, A. D. Maclagan, J. Struthers, P. H. Watson, J. K. Barton, and A. W. Foot, and Messrs. G. Busk, H. Power, J. M. Purser, and W. Stokes be deputed to visit, along with members of the Medical Council, for one year from November 1st, 1874, the examinations of the following bodies, viz., the Royal College of Physicians of London, the Royal College of Surgeons of England, the Universities of Oxford, Cambridge, Durham, London, Aberdeen, Edinburgh, St. Andrew's, and Dublin, the King and Queen's College of Physicians in Ireland, and the Apothecaries' Hall of Ireland. A letter was forwarded to the Secretary of State for the Home Department respecting the question of the General Medical Council undertaking to prosecute in the case of offences under the Medical Act. It was stated that in 1859 the matter had been fully considered, and the opinion which the Council then formed was to the following effect, viz.: "That it is legally no part of the functions of the Council, according to the Medical Act, to institute proceedings at large for offences against the Act." And: "That the funds at the disposal of the Council were quite inadequate for the purpose." The letter tended to show that fifteen years' further experience had confirmed the opinions formed in 1859; and it finally requested the Home Secretary to take the subject, which was of great importance, into his consideration. Another communication was forwarded to the President of the Local Government Board, urging that certificates, required by article 178 of the General Consolidated Order, should be received from all registered practitioners, not from members of the Royal College of Surgeons of England only. A letter was received from the Registrar-General enclosing the new form of certificate of the cause of death, under the Births and Deaths Registration Act, 1874, and asking for suggestions respecting it which would be likely to render it more useful to science, and more acceptable to the medical profession. A reply was sent, which stated that the following particulars appeared to deserve consideration, viz.:—That medical men should not be required by law to give information which they did not possess from personal knowledge; that the words "*as I am informed*", which might be struck out if not required, should be printed in the body of the certificate after the word "*died*"; that the medical attendant ought not to be required to send to the Registrar or anyone else, but that the Registrar should apply to him; that in the certificate the word "*whose apparent age was*" should be substituted for "*whose age was stated to be*"; and that the Registrar-General's abstracts should be gratuitously sent to all registered medical practitioners who annually apply for them. Some other minor particulars were also suggested for consideration. A communication was received from Trinity College, Dublin, enclosing the three latest orders of the Board of Trinity College, relating to the School of Physic in the University of Dublin. The name of Andrew McLellan, which had been erased by the Registrar, was ordered to be restored to the Register.

Movements of Army Medical Officers. — Surgeon-Major Stewart, 2nd Battalion 21st Regiment, has been detailed to take medical charge of the 3rd Station Hospital at Aldershot.—Surgeon-Major J. F. Supple, A.M.D., is doing duty with the 2nd Battalion 21st Regiment.—Surgeon E. V. MacSwiney, 2nd Battalion 24th Regiment, has been detailed to do brigade mounted duties in place of Surgeon-Major Stewart, while in charge of the 3rd Station Hospital, Aldershot.—Surgeon-Major T. Y. Baker, A.M.D.; has been struck off the strength of the Aldershot Division from the 7th instant.—Surgeon-Major Blatherwick (of Netley) and J. B. Cockburn (Royal Engineers) are about to retire from the service on half-pay.—Surgeon Drew has resumed his duty at the General Hospital, Dublin, from leave of absence.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

Appointment of Extraprofessorial Examiners.—Election of Lord Rector.—The Medical Societies.—Hospital Sunday.

At a meeting of the University Court held last week, in accordance with powers granted by the Scottish Universities Commissioners in 1858 and revised last July, the Court appointed additional examiners in medicine on and after January 1st, 1875, such examiners to hold office for a fixed number of years.

The election of a Lord Rector took place on Saturday, and resulted in the election of the Earl of Derby to fill the Chair for the next three years. Early in the week, the contest was seen to be between Lord Derby and Dr. Lyon Playfair; the Duke of Argyll, the only other candidate who received support, being withdrawn by his supporters, who gave their votes to Dr. Playfair. The scene at the university-gate on Saturday morning was a most riotous one; on each side of the entrance-porch was a knot of students with bags of flour and peas, which they literally poured upon all electors whose views did not agree with their own. The votes were taken in the various class-rooms by the professors, and, on counting up at 11 o'clock, it was found that Lord Derby had received 770 votes, against 583 for his opponent. Every matriculated student who has also taken out one class is entitled to vote; but 411 declined to avail themselves of the privilege. Numerous cartoons, many of them displaying a considerable deal of cleverness, and several literary squibs, for the most part feeble, were produced during the contest. After the result was declared, a large procession of students paraded the town and made a good deal of noise; but no disturbance of the peace took place. In the evening, the Derbyites signalised their victory by a torchlight procession through the principal streets.

The societies have begun the work for the session well. There was an excellent meeting of the Medico-Chirurgical Society on Wednesday week, at which many interesting pathological specimens were shown and several excellent papers read. The Obstetrical Society met last Wednesday.

To-morrow is Hospital Sunday in Edinburgh, where the custom of devoting all the money collected in almost all the places of worship on a special Sunday to charitable purposes has long been practised. The plan pursued here differs from that in most towns, in that all the proceeds are devoted to the Royal Infirmary, as being the institution which most deserves and requires support. The movement has met with considerable success hitherto, the amount last year collected in Edinburgh alone reaching over £1,500—a considerable increase over the previous year.

CONSTANTINOPLE.

[FROM AN OCCASIONAL CORRESPONDENT.]

Bearded Women.—Small-pox.—Diarrhœa.

We have now staying here on a visit two women from Bassorah, on the Persian Gulf, who are affording a lively topic of conversation in the Turkish circles of society, inasmuch as both the women, who are sisters, Leila and Nahara, aged respectively 20 and 24, are endowed with large flowing beards and whiskers of great length, and of a dark silky texture; they seem apparently well developed, of a short stature, very swarthy in complexion, and have remarkably small hands and feet. At the express desire of the Sultan, they were last week presented to him at his palace of Dolmabaghtché. Their unfeminine endowment gives them a most peculiar appearance; the dark beard showing through the white tashmak or head-dress of muslin, which the Turkish women are compelled to wear.

The health of Constantinople continues unusually good; the city being free from any epidemic disease with the exception of small-pox, which has been endemic during the whole of the summer, and still continues to prevail. A large number of cases, some of a very aggravated form, have occurred during the past month in Therapia, Bukudery, and other Greek villages situated along the shores of the Bosphorus, accompanied in many instances by a fatal result, the disease affecting, as a rule, the children and younger members of the family.

The cold weather has now set in; and with it the closure of the fruit season, which this year has been remarkably abundant. No time during the last ten years has there been so little diarrhœa or enteric disease of any form. This happy circumstance can in no way be traced to improved sanitary arrangements; for, since the Crimean war, it is very doubtful whether the Turk has introduced any sanitary measures whatever into the city, excepting those, perhaps, which have been forced upon him by the European residents, and paid for out of their own capital.

ASSOCIATION INTELLIGENCE.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The next meeting of the above Branch will be held at the Black Lion Hotel, Aberdare, on Thursday, November 26th, at 12.30 P.M. Meeting of Council at noon.

Dinner will be provided as usual. Members intending to be present are requested to communicate their intention to Dr. Sheen, Cardiff, on or before the 23rd November.

Those members who desire to read papers are requested to forward the titles of the same to Dr. Sheen, as early as possible.

Andrew Davies,
Alfred Sheen, M.D., } *Hon. Secs.*

Cardiff, October 29th, 1874.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

An adjourned special meeting of this Branch will be held in the Council Room of the Midland Institute, on Thursday next, November 26th, 1874; the Chair to be taken at half-past three o'clock P.M. precisely.

Business.—Further consideration of the Report of the Committee on Medical Education.

Balthazar Foster, M.D.,
James Sawyer, M.D., } *Honorary Secretaries.*

Birmingham, November 19th, 1874.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

The next meeting of the above Section will be held at the Midland Institute, on Friday, November 27th, at Three o'clock.

Vincent Jackson,
Robert Jolly, } *Honorary Secretaries.*

Birmingham, November 16th, 1874.

BATH AND BRISTOL BRANCH.

The second ordinary meeting of the session will be held at the York House, Bath, on Thursday evening, December 3rd, at 7.30 P.M.; F. Mason, Esq., President.

R. S. Fowler,
Edmund C. Board, } *Honorary Secretaries.*

Bath, November 1874.

MIDLAND BRANCH.

The next meeting of the above Branch will be held at Lincoln, on Friday, December 18th, at 7 P.M.; T. Sympson, Esq., President.

Members desirous of reading papers, are requested to communicate at once with C. Harrison, M.D., *Honorary Secretary.*

Lincoln, November 17th, 1874.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

At a meeting of the Committee of Council, held at the Queen's Hotel, Birmingham, on Wednesday, November 4th, 1874—present, Mr. G. Southam (President of the Council), in the Chair; Dr. Falconer (Treasurer), Mr. Alfred Baker, Mr. E. C. Board, Mr. G. Callender, F.R.S., Dr. A. Carpenter, Dr. R. Farquharson, Dr. B. Foster, Dr. E. L. Fox (Clifton), Mr. R. Harrison, Mr. J. R. Humphreys, Mr. F. E. Manby, Mr. R. H. B. Nicholson, Dr. W. Procter (York), Dr. J. Sawyer, Dr. F. Sibson, F.R.S., Dr. A. B. Steele, Dr. W. F. Wade, Dr. A. T. H. Waters (Liverpool), Dr. E. Waters (Chester), Mr. C. G. Wheelhouse, and Dr. M. A. E. Wilkinson.

Resolved—That the Minutes of the Journal and Finance Committee of October 15th last be approved, and the recommendations carried into effect.

Resolved—That Messrs. Price, Holyland, and Waterhouse be appointed auditors for the year 1874.

Resolved—That the 3rd, 4th, 5th, and 6th days of August, be recommended to the General Meeting of to-day as the date for the Annual Meeting, 1875.

Resolved—That there shall be three Addresses at the Annual Meeting in August next, viz., one in Medicine, one in Surgery, and one in Physiology.

Resolved—That Dr. Begbie be requested to give the Address in Medicine.

Resolved—That Professor Spence be requested to give the Address in Surgery.

Resolved—That Professor Rutherford be requested to give the Address in Physiology.

Resolved—That the Arrangement Committee consist of the President, the President-elect, the President of the Council, the Treasurer, Dr. A. P. Stewart, Dr. Sibson, F.R.S., Dr. Matthews Duncan, Dr. Waters (Chester), Professor Lister, Dr. Grainger Stewart, Professor Maclagan, Dr. Joseph Bell, and the Secretaries, Dr. Batty Tuke, Dr. McKendrick, and Mr. Bishop.

Resolved—That the Committee for reporting on Scientific Grants consist of ten members, viz., five members of the Committee of Council and five non-members of the Committee of Council, with the President of the Council and Treasurer as *ex officio* members.

Resolved—That Mr. Wheelhouse, Mr. Baker, Dr. Wade, Mr. Callender, F.R.S., and Dr. Sibson, F.R.S., be the five members of the Committee of Council.

Resolved—That the time for sending in applications for grants be extended to December 27th, 1875.

Read a letter from Dr. Blunt respecting a member.

Resolved—That Dr. Blunt be requested to place the matter before the Council of the Midland Branch, with a request that, if necessary, they report upon the same to the Committee of Council.

A letter from instrument-makers, asking that the exhibition of instruments be restricted to two days, was laid on the table.

Resolved—That the letter be referred to the Arrangement Committee.

Read correspondence from Dr. Blenkinsop upon the formation of a Branch at Bournemouth.

Resolved—That Bournemouth being in the district of the Southern Branch already formed, the members in Bournemouth, under the circumstances, be earnestly recommended, in the interests of the Association, to join the Southern Branch.

Read letter of Dr. Harrison, forwarding copy of proposed laws of the Midland Branch.

Resolved—That the proposed laws of the Midland Branch be approved and confirmed.

Read letter from Dr. Barnes, Honorary Secretary to the Cumberland and Westmorland Branch, proposing certain alterations of the laws, and to alter the name to the Border Counties Branch, and to include Dumfries, etc.

Resolved—That the proposed alterations and additions in the laws of the Cumberland and Westmorland Branch be approved and confirmed.

Read communication from Dr. Ogston, Honorary Secretary to the Aberdeen Branch.

Resolved—That Mr. Heckstall Smith, Dr. Alfred Carpenter, Dr. Sibson, and Dr. Farquharson, be a subcommittee to consider the communication from the Aberdeen Branch respecting Dr. MacQuibban's case, and the circumstances relating thereto, and report upon the same at their earliest convenience.

Resolved—That the consideration of the letters from the American Medical Association be postponed till the next meeting.

The General Secretary reported that a declaration had been issued by Mr. Christopher Heath against the editor for certain articles that had appeared in the British Medical Journal.

Sixty-six gentlemen were elected members.

SHROPSHIRE ETHICAL BRANCH: ANNUAL MEETING.

The annual meeting was held in the assembly-room at the Lion Hotel, Shrewsbury, on Monday, October 5th, at 1 P.M.; W. A. Davies, Esq., President, in the Chair. The following resolutions were passed unanimously.

Minutes of General Meeting.—"That the minutes of the last general meeting be affirmed."

Vote of Thanks.—"That the cordial thanks of the meeting be given to the late President, Vice-Presidents, Council, Treasurer, and Honorary Secretary, for their valuable services during the past year."

Election of Officers.—"That Richard Wilding, Esq., be elected President; John Rider, Esq., and J. Sides Davies, Esq., Vice-Presidents; and the following gentlemen members of the Council for the ensuing year, in the place of those who retire by rotation or otherwise: S. Tayleur Gwynn, M.D.; J. E. Mayer, M.D.; W. Parry, M.D.; Dr. Jukes Styrap; and W. Thursfield, M.D."

Representatives of the Branch in the General Council.—"That, in accordance with the eighth general law of the British Medical Association, W. A. Davies, Esq., Richard Wilding, Esq., J. R. Humphreys, Esq., and Dr. Jukes Styrap, be the representatives of the Branch in the General Council for the ensuing year; and that the President, W. A. Davies, Esq., be the Branch representative on the Parliamentary Committee."

The Medico-Chirurgical Tariffs.—"That the medico-chirurgical tariffs, which have been submitted to and discussed by the meeting (having also been previously circulated among the members for their consideration and emendations), be approved, and recommended for general use by the associates of the Branch."

Special Vote of Thanks to Dr. Styrap.—"That the most cordial thanks of the meeting be tendered to Dr. Styrap, on behalf of the Branch at large, for the thoughtful care he has bestowed on the revision of the medical tariffs, and for the valuable time that, in deference to the members' special request, he has devoted to the preparation of a tariff of surgical fees, which the meeting would simply but emphatically describe as a difficult problem (especially to a non-surgical practitioner like Dr. Styrap) ably solved; for which, and other zealous labours to promote the honour and true interests of the profession, the members again desire to record their grateful appreciation and acknowledgment."

A Vote of Thanks to the President closed the business proceedings of the meeting.

In consequence of the important and unavoidably long discussion—in which there was an entire accord of opinion—relative to the medico-chirurgical tariffs and preface thereto, various papers and reports of cases were necessarily deferred, and the dinner delayed much beyond the appointed hour—a source of regret to the President, as several of the country members had to leave by inconveniently early (but last) trains.

Dinner.—The dinner was served, as usual, in the ball-room, under the presidency of W. A. Davies, Esq., of Llanidloes. The band, consisting of nine instrumentalists, under the leadership of Mr. Appleby of Liverpool, were placed in the old card-room adjoining. During the dinner, and after each toast, appropriate selections, vocal and instrumental, from Auber, Balfe, Costa, Meyerbeer, Mendelssohn, Rossini, etc., were played by the band, and added not a little to the pleasures of a very enjoyable evening.

CORRESPONDENCE.

THE CONTAGIOUS DISEASES ACTS.

Sir,—I am sure your Liverpool correspondent desired to be impartial in his report of the discussion on the Contagious Diseases Acts at our Medical Institution, contained in to-day's Journal. I cannot help thinking he has been egregiously unsuccessful. He is evidently so strong an advocate for the Acts, that he can see only prurience and fanaticism in those who oppose them, and has a very poor idea of the intelligence of the hundred and eight medical men here who signed a protest against them.

My own main objection to the Acts arises from moral considerations. These, however, are unsuitable for discussion in a medical society, and the author of the paper most carefully excluded them. My impression was that, from a medical point of view, facts would be overwhelmingly in their favour; and I believe the author, when he entered on his labours, thought so too. The result of his examination into public records, the Reports of the Army and Navy Board, however, seemed to prove the very reverse. It was this result, and the steps by which he had arrived at it, that constituted the paper read to the meeting. The immense labour which had manifestly been undertaken, and the careful sifting, arrangement, and discrimination of the statistics, which the paper exhibited, even if they did not bring conviction, certainly deserved commendation and thanks, instead of the disparaging remarks, going almost as far as to the suggestion of disingenuousness, of your correspondent.

I differ from your correspondent as to the feeling of the meeting. It did not appear to me to be strongly in favour of the Acts. I think the majority was on the other side. One thing, however, is certain: no one attempted to grapple with the author's statistics, no one pointed out any fallacy in the methods he had pursued, though some seemed to feel considerable annoyance at the result arrived at. Mr. Acton was no exception. Your correspondent only sneers. I think he shows neither courtesy nor thoughtfulness in such remarks as these: "His (the author's) industry was rewarded by the triumphant evolution from these marvellous figures of a discovery which, for originality and ingenuity, might almost vie with those of Harvey, Hunter, or Jenner; namely, that the contagious diseases among British soldiers and sailors possess some peculiar property which constitutes them an exception to all known laws of disease; inasmuch as their prevalence increases, and their virulence and mortality are aggravated, in a direct ratio with the extent to which they are subjected to remedial and preventive treatment." Now, sir, if the author's results are correctly deduced, without attempting to prove what your correspondent states, he does prove that treatment, hitherto supposed to be remedial and preventive, is not really so; and that, therefore, some other has to be devised before the boast of the advocates of the Acts can be sustained.

I am, etc., James Hakes.

30, Hope Street, Liverpool, November 14th, 1874.

Sir,—I observe, in your Journal of the 14th, a report from your Liverpool correspondent on the communication to the Liverpool Medical Institution of the substance of my "statement" on the Contagious Diseases Acts, prepared for the Home Secretary, in which your correspondent verges upon personality and the imputation of unworthy motives to me, and concludes with informing your readers that the purport of the paper was such a "marvellous evolution" of absurdity as he seems scarcely to have words to describe. As I have observed a report of a very different character in another medical journal, I enclose you a copy, and shall leave it to your own sense of justice and professional fairness to deal with the matter. As, however, your correspondent has endeavoured to make my communication appear an absurdity, I shall state, for the information of your readers, what I did really bring before the meeting; viz., an abstract of the Army and Navy Health Reports from 1860 to 1872. These were the only sources from which I derived my materials, except papers laid before Parliament. From these sources, I showed that venereal diseases of all kinds were rapidly abating for several years previous to the introduction of the Acts; that this improvement then received a check from which it has never recovered; that gonorrhœa has more than doubled in the Home and Mediterranean Stations in the Navy, and that venereal sores have doubled in the Mediterranean Station, since the Acts were in force; that gonorrhœa in the Army has steadily increased, and is now given up by the advocates of the Acts as a failure and not worth considering, although it has produced more than a third as much invaliding in the Navy during the last eleven years as primary and secondary syphilis; that there is no station in the world where the improvement in venereal sores has been so small as in the Home Station; that the average duration of disease is less in the unprotected than in the protected stations; and that disease has increased above 20 per cent. amongst the registered prostitutes, and deaths have more than doubled, since the Acts have been in force.

These are serious rather than absurd results; and, as you have in your possession the "statement" lately presented to the Home Secretary, in which they are proved in full, you are able to judge for yourself whether they are fairly proved or not.

I am, etc., J. Birkbeck Nevins, M.D.Lond.

Liverpool, November 16th, 1874.

*** We have received the copy of Dr. Nevins's paper referred to above, and will carefully review it.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

APPOINTMENTS OF SUPERINTENDENT MEDICAL OFFICERS OF HEALTH IN IRELAND.

Colgan, Henry, L.R.C.S.I., appointed to the Kingstown Urban Sanitary District.
Cronin, James D., M.D., appointed to the Queenstown Urban Sanitary District.
Daly, George W., M.D., appointed to the Dunshauglin Rural Sanitary District.
Davis, W. A., M.D., appointed to the Newry Rural Sanitary District.
Donovan, Daniel, jun., M.D., appointed to the Skibbereen Rural Sanitary District.
Gamble, Baptist, L.K.Q.C.P.I., appointed to the Enniskillen Rural Sanitary District.
Gilligan, Michael, M.D., appointed to the Edenderry Rural Sanitary District.
Gilmore, Samuel, L.R.C.P.Ed., appointed to the Castleblayney Rural Sanitary District.
Graham, Baptist G., M.R.C.S.Eng., appointed to the Irvinestown Rural Sanitary District.
Greene, Wm., M.R.C.S.Eng., appointed to the Urlingford Rural Sanitary District.
Falvey, Francis J., L.R.C.P.Ed., appointed to the Tralee Urban Sanitary District.
Fenton, Wm. Francis, L.R.C.P.Ed., appointed to the Clogheen Rural Sanitary District.
Hadden, Ed., L.K.Q.C.P.I., appointed to the Clonakilty Rural Sanitary District.
Harrison, John, M.D., appointed to the Roscommon Rural Sanitary District.

Hawthorne, John, M.D., appointed to the Banbridge Rural Sanitary District.
Johnston, Benjamin, M.D., appointed to the Middleton Rural Sanitary District.
Kennedy, David, M.B., appointed to the Castlederg Rural Sanitary District.
Kidd, Abraham, M.D., appointed to the Ballymena Rural Sanitary District,
Laffan, Thomas, L.K.Q.C.P.I., appointed to the Cashel Union Sanitary District.
Lane, Alexander, M.D., appointed to the Coleraine Rural Sanitary District.
Lane, William, M.D., appointed to the Newtownlimavady Rural Sanitary District.
Lyster, Patrick Thomas, L.K.Q.C.P.I., appointed to the Athlone Urban Sanitary District.
M'Manus, George, L.R.C.P.Ed., appointed to the Trim Rural Sanitary District.
Mayne, Charles C., M.B., appointed to the Dalkey Urban Sanitary District.
Molony, James, L.K.Q.C.P.I., appointed to the Tulla Rural Sanitary District.
Moorhead, Michael J., M.D., appointed to the Tullamore Rural Sanitary District.
Morrissy, Tobias J., M.D., appointed to the Tipperary Rural Sanitary District.
Nolan, James J., L.R.C.S.I., appointed to the Ballina Rural Sanitary District.
O'Farrell, Harward, M.D., appointed to the Boyle Rural Sanitary District.
O'Grady, Francis R., L.K.Q.C.P.I., appointed to the Swinford Rural Sanitary District.
O'Hanlon, David, M.D., appointed to the Rathkeale Rural Sanitary District.
O'Kelly, Martin T., L.R.C.S.I., appointed to the Celbridge Rural Sanitary District.
Osborne, John A., M.D., appointed to the Milford Rural Sanitary District.
O'Ryan, Anthony, L.R.C.S.I., appointed to the Carrick-on-Suir Rural Sanitary District.
Roche, John, M.D., appointed to the Fermoy Rural Sanitary District.
Powell, Edward, M.D., appointed to the Sligo Rural Sanitary District.
Rawson, Edward A., M.B., appointed to the Carlow Rural Sanitary District.
Ryan, Richard, M.D., appointed to the Balieborough Rural Sanitary District.
Ryan, Richard S., L.R.C.P Ed., appointed to the Callan Rural Sanitary District.
Shaw, William, M.D., appointed to the Lurgan Rural Sanitary District.
Swann, Thomas, M.D., appointed to the Abbeleix Rural Sanitary District.
Tagert, Robt. M., M.D., appointed to the Carrickmacross Rural Sanitary District.
Thorp, Gabriel, M.B., appointed to the Listowel Rural Sanitary District.
Townsend, Richard H., M.B., appointed to the Ennistymon Rural Sanitary District.
Turner, Thomas B., L.K.Q.C.P.I., appointed to the Tuam Rural Sanitary District.
Vance, James, L.K.Q.C.P.I., appointed to the Rathdrum Rural Sanitary District.
Willans, Thomas H., L.R.C.P.Ed., appointed to the Cootehill Rural Sanitary District.

POOR-LAW MEDICAL APPOINTMENTS.

Blair, Andrew, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the parish of Ceres, Fifeshire.
Coleman, Henry William, L.R.C.P.Ed., appointed Medical Officer of Bramley Union Workhouse, and Medical Officer and Public Vaccinator for the Armley District of the Bramley Union.
Dudley, Reginald R., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Kirkoswald No. 1 District of the Penrith Union.
East, George E., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator of the Swinefleet District of the Goole Union.
Fulshaw, Ralph, M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Earl Shilton District of the Hinckley Union.
Herman, George Ernest, M.R.C.S. and L.S.A., appointed Medical Officer to the Workhouse, St. Matthew's, Bethnal Green.
Macarthur, Duncan, L.R.C.P.Ed., appointed Medical Officer for the Stanley-cum-Wrenthorpe District of the Wakefield Union.
Overton, John G., M.D., appointed Medical Officer for No. 3 District of the Coventry Union.
Priestley, Wm. S., M.R.C.S.Eng., appointed Medical Officer for the St. Faith District and the Workhouse of the St. Faith Union, Norwich.
Tolerton, William R., M.D., appointed Medical Officer and Public Vaccinator for No. 4 District of the Malmesbury Union.
Vesey, A. B., M.D., elected Medical Officer of the Workhouse and of the Magherafelt District of the Magherafelt Union.

The "Lime Process" and the Local Government Board.

A correspondent writes to us:—Very great surprise is felt among all who are giving their attention to sanitary matters, at the statement now going the round of the newspapers, to the effect that Mr. Harrison of the Local Government Board has recommended that the sewage of Winchester should be treated by the lime process, as at Birmingham. Is this possible in the face of the fact, that at Hertford the same process has been discarded as an utter failure, after it had been held up to the Birmingham authorities as a perfect success for them to adopt and copy? Can we wonder at the perplexity of town councils and boards of health when such advice can be given? It would be well for the country if we knew how many of the inspectors of the Government think and act alike. It is all very well to say that every case should be treated on its merits, but it is now quite time that some fundamental data should be recognised. Birmingham has spent and is spending an immense sum in works which a few years hence may follow the fate of those of Hertford, and this ought not now to be possible.

The Vaccination Act.

Sir,—I have read "Suspirum's" letter in your issue of the 14th inst., and certainly think he has the remedy for the evil he complains of in his own hands He could, if he chose, vaccinate "free gratis for nothing". Assuming that he did so in one hundred cases, he would, taking the fee at 2s. 6d. each, lose the enormous sum of £12 10s. *per annum*. I would advise "Suspirum" to look to some other cause for his loss of practice than the one of which he complains.

I am a parish surgeon, but not a public vaccinator. Another practitioner in the town fills that post, and, I know for certain, vaccinates many of "my babies"; but I find that when the mother requires attendance in her trouble again, she comes to me—*i.e.*, provided she has paid her former fee, and is not in my debt. If she be, she probably gives the public vaccinator a turn, and lets him in too.

In my experience, the imprudent, improvident, and dissipated habits of the working classes are far more prejudicious to the increase of one's income than the Vaccination Act. I have practised among the working-classes for more than four years, and find it useless to book more than half the work one does, and then only expect to get in a quarter of what is booked. I am, etc., Cynic.

OBITUARY.

ALEXANDER BARCLAY, M.D., Deputy Surgeon-General.

The painful intelligence has reached us of the death of Deputy Surgeon-General A. Barclay, M.D., Chief of the Statistical Branch in the office of the Director-General of the Army Medical Department. His decease took place on the 13th instant, after a comparatively short illness, and appears to have been due to pelvic cellulitis. Dr. Barclay entered the Medical Department of the Army in December 1843, and had, therefore, nearly completed the thirty-first year of service at the time of his decease. He had at one time served as Assistant to Dr. Graham Balfour in the statistical branch of the Director-General's office; and not long since, on that officer quitting the charge on promotion, Dr. Barclay was, in the ordinary course of events, selected to be his successor. He had had extended experience as an Army Medical Officer in various parts of the world, especially in India, and had always maintained a very high character for good sound sense, professional ability, and private worth. He was of a most amiable disposition, and won the strongest regard of a large circle of friends, among whom none were more devoted than his old companions in the 43rd Regiment, of which he was for many years the surgeon.

Dr. Barclay was the author of a very valuable and exhaustive essay on the *Natural History of Insolation, chiefly from the Medical Records of Her Majesty's 43rd Light Infantry*, which appeared in the *Madras Quarterly Journal of Medical Science* in October 1860. Dr. Barclay's description of the disease was partly derived from experience in South Africa, but was principally founded on the results of a terrible ordeal through which the regiment of which, as before mentioned, he was for some time the surgeon (the 43rd) had to pass at the time of the Sepoy Mutiny in India in 1857-58. Dr. Barclay marched with his regiment from Bangalore to Central India, and, when 969 miles had been traversed, the first case of insolation occurred. Then, among officers and men, all suffering from exhaustion and subjected to excessive heat, "the thermometer varying from 115 degs. to 118 degs. Fahr. in the largest tents, and reaching 127 degs. in the smaller ones", fresh cases occurred in rapid succession; but circumstances rendered it impossible to give the regiment rest. The "Central Indian Campaign" was in progress, and the regiment had to take its share in it. As Dr. Barclay himself observed, "few such opportunities of observing the effects of protracted exposure to intense heat in a body of men in the field, debilitated by fatigue and want of rest, as that afforded by this march, have ever occurred. Had an experiment been instituted for the express purpose of acquiring information on the subject, no more efficient means of bringing it to the test of observation could well have been devised". Fortunately, the opportunity of making the observations which the occasion afforded was not neglected, notwithstanding the physical prostration under which its author laboured in common with his companions in the field. The treatise, which embodies the experience thus obtained, is replete with information, and will well repay the careful study of all who are interested in the important subject of tropical disease.

Dr. Barclay leaves a widow and large family to mourn his loss.

JOHN STUART VESEY, M.D., Magherafelt.

Dr. J. S. Vesey, who died at Magherafelt, County Derry, on October 8th, at the age of 59, was son of the late Rev. Agmondisham Vesey, Rector of Magherafelt. He was a Doctor in Medicine of the University of Glasgow, etc., and Fellow of the Royal College of Surgeons of Ireland. For upwards of thirty years, he was Medical Officer to the Magherafelt Union Workhouse, Fever Hospital, and Dispensary; and was also Medical Attendant to the tenantry on the Salter's Estate and to the Royal Irish Constabulary; and was Local Inspector of Army Recruits, and Registrar of Births, Marriages, and Deaths for this district. Dr. Vesey had an extensive practice, and is much regretted.

HENRY RUDGE, M.D., Leominster.

It is with considerable regret that we have to announce the death, after a long and painful illness, of Dr. Rudge, who died on October 8th. Dr. Rudge was in practice prior to 1815, and practised as a general practitioner in Leominster for upwards of half a century, where he enjoyed a very large and lucrative practice, and was deservedly beloved by all his patients for his many good qualities. He gained considerable reputation for his successful treatment of diseases of the eye. Dr. Rudge was a son of the Venerable Thomas Rudge, B.D., Archdeacon of Gloucester and Chancellor of the diocese of Hereford, and studied at St. Bartholomew's. Dr. Rudge was a frequent and valued contributor to the various medical papers, and was one of the oldest members of the British Medical Association, in which he always took great interest.

HENRY GEORGE, L.S.A., KIRTON-IN-LINDSEY.

THE late Mr. Henry George was born at Lincoln in January, 1802, and received his education at the Grammar School in that city. He was apprenticed to the late Mr. George Foster, Surgeon of Kirton-in-Lindsey, and became a student at St. Bartholomew's Hospital when Abernethy was a teacher. After passing the apothecaries' examination, he practised for a short time at North Leverton in Nottinghamshire. At the request of his former master, Mr. Foster, he became his partner, and afterwards his successor. He was medical officer to the County House of Correction up to the time of its removal to Lincoln, and had held that appointment for more than forty years. On the Sunday previous to his death, he was attacked with diarrhœa, and during the night he suffered from dyspnœa; he appeared to be recovering from the consequent debility, but on Thursday, October 8th, about three o'clock A.M., he had an attack of apoplexy, and was never again sensible.

In his younger days, he was a good surgeon, performing successfully several important surgical operations, such as tying the external carotid.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

MR. HENRY POWER has been appointed Examiner for the Natural Sciences Tripos for the present year, in the place of Dr. Rutherford, resigned.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 12th, 1874.

Baker, Benjamin Russell, Andover, Hants
Beaumont, William Marden, South Binsop, Oxford
Bevan, Adolphus, Rye Lane, Peckham
Cooke, Robert, Newport, Monmouth
Gwatkin, Owen, Grand Parade, Brighton
Rossiter, George Frederick, Taunton
Thompson, Harold, Beaumont Street, Oxford

The following gentlemen also on the same day passed their primary professional examination.

Bruce, Peter, Middlesex Hospital
Gonsalves, Manuel Martinho, St. Mary's Hospital

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH: Double Qualification.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

Patrick A. Riordan, Cloyne; William Frederick Bailey Eadon, Sheffield; Thomas Herbert Houghton, Lancashire; John Rodman, Kilmarnock; Henry Miller Shand, Aberdeenshire; William Thomas Livingstone Boulton, St. John's, New Brunswick; Daniel Birtwell, Clayton-le-Moors; Frederick Henry Worswick, Manchester; and Charles Henry Phillips, Manchester.

The following gentlemen passed their final examination, and were admitted L.R.C.P.E. and L.R.C.S.E.

Henry Pearde, Aix-la-Chapelle; John Hugh Maclean, Edinburgh; Patrick S. Lawrence O'Dea, County Galway; Clement Pollard, Taunton; William Joseph Atkinson, County Kildare; Thomas Gallimore, Ashwood, Longton; Brisbane Warren Large, Cork; Theobald Wolfe Tone Williams, London; Alexis Mac Auliffe, Cork; George Robert Gowland, Sunderland; Harry Foord Clark, Farnham; James Campbell Gray, Finvoy; Timothy Daly, Crookstown; James Grant, Caithness; James Aitchison, Newcastle-on-Tyne; James Fisher Anderson, County Armagh; William M'Intyre, St. Andrew's; and Frank Angiere Grevile, Clifton, Bristol.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

William Fearnley, West Hardwick, Pontefract; Charles Gibson, Newcastle-on-Tyne; H. B. Kiermander, Calcutta; and Andrew Pyper, Edinburgh.

The following gentlemen passed their final examination, and were admitted L.R.C.S.E.

Martin Francis Cleary, Nenagh: Ludlow Tonson Colthurst, Cork; Joseph John Lamprey, Dublin; and Robert Bryden Hill, Kent.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon: £80 per annum, board and residence. Applications on or before December 14th.
BUCKINGHAM UNION—Medical Officer for No. 3 District: £105 per annum.
CASTLEBAR DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.
CITY OF LONDON UNION WORKHOUSE—Resident Medical Officer.
COOKHAM UNION—Medical Officer for Bray District: £160 per annum.
CORK FEVER HOSPITAL—Physician.
CROOM DISPENSARY and WORKHOUSE—Apothecary: £30 and £20 per annum.
DERBYSHIRE GENERAL INFIRMARY—Assistant House-Surgeon. No salary, but apartments, board, and washing. Applications, not later than 21st instant, to Mr. Samuel Whitaker, 4, Victoria Street, Derby.
EXETER DISPENSARY—Surgeon.
FROME UNION—Medical Officer for No. 3 District. £75 per annum.
HACKNEY UNION INFIRMARY—Resident Medical Officer: £200 per annum, board and lodging. Applications 24th instant.
HUDDERSFIELD INFIRMARY—House-Surgeon: £80 first year, £90 second year, and £100 third year, with board and washing. Applications on or before 23rd instant.
KENT LUNATIC ASYLUM, Barming Heath—Resident Medical Officer.
LEICESTER, Borough of—Public Analyst: £80 per annuum. Applications on or before 25th instant.
LEXDEN and WINSTREE UNION—Medical Officer for No. 2 District: £,6 per annum.
LOUTH UNION—Medical Officer for Hainton District: £8 per annum.
MALTON DISPENSARY—Medical Officer: £100 per annum. Applications to Mr. H. Pickering, Honorary Secretary.
MARKET BOSWORTH UNION—Medical Officer and Public Vaccinator for the Desford District: £30 per annum, and extras. Applications, on or before 24th instant, to T. B. Fitch, Clerk, Congerstone, Atherstone.
NEWPORT PAGNELL UNION—Medical Officer for Workhouse and No. 12 District: £100 per annum, and extras.
OAKHAM RURAL SANITARY DISTRICT—Medical Officer of Health; £60 per annum.
QUEEN'S HOSPITAL, Birmingham—Resident Secretary and General Superintendent (unmarried): £150 per annum, board, and lodging. Applications, 25th instant, to the Chairman of the House Committee.
RIPON DISPENSARY and HOUSE OF RECOVERY—Resident Medical Officer: £100 per annum, furnished apartments, etc. Applications on or before 26th instant.
ROSS UNION—Medical Officer and Public Vaccinator for the Rural District of St. Weonards: £76:10 per annum, and fees. Applications on or before 23rd instant.
RYDE DISPENSARY—Physician.
ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.
ST. JAMES'S, Westminster—Medical Officer of Health: £200 per annum.
SALISBURY INFIRMARY—Physician.
STEPNEY UNION INFIRMARY—Surgeon: £160 per annum.
SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—Surgeon. Applications to Honorary Secretary on or before 27th instant.
TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.
TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.
UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-upon-Tyne—Lecturer on Anatomy, Lecturer on Medical Jurisprudence, and Lecturer on Botany. Applications not later than 21st inst.
WESTERN GENERAL DISPENSARY, Marylebone Road—Physician. Applications to the Secretary on or before 23rd instant.
WIRRAL HOSPITAL and DISPENSARY FOR SICK CHILDREN, Birkenhead—Acting Medical Officer.
WORCESTER UNION—Medical Officer: £65 per annum.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

DUSTAN, Henry, M.R.C.S.Eng., appointed Resident Medical Officer to the Jersey General Dispensary, *vice* E. G. Archer, M.R.C.S.Eng., resigned.
GREENFIELD, W. S., M.B., appointed Demonstrator of Morbid Anatomy at St. Thomas's Hospital, and Lecturer on Morbid Anatomy and Practical Pathology in the Medical School.
HERMAN, G. E., M.R.C.S., appointed Resident Medical Officer to Bethnal Green Workhouse Infirmary.
SCOTT, John M., L.R.C.P.Ed., appointed House-Surgeon to the Lancaster Infirmary, *vice* W. Preston, M.B., resigned.
SMITH, Thomas B., M.R.C.S.Eng., appointed House-Surgeon to the Bridgnorth Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

HEDLEY.—At Prospect Hotel, Harrogate, on the 19th ult., the wife of John Hedley, Esq., Yester House, Middlesbrough-on-Tees, of a daughter.

BEQUESTS.—By the will of the late Mr. George Vaughan, of Westbourne Terrace, the following legacies, free of duty, have been made to medical charities, on the decease of his widow: to St. Thomas's Hospital, £1,000; and to the London Hospital, the Middlesex Hospital, St. Mary's Hospital, the Orthopædic Hospital, the Royal Hospital for Incurables, the Ophthalmic Hospital, the Charing Cross Hospital, the Idiot Asylum (Earlswood), the Surrey Dispensary, the Smallpox Hospital, the Consumption Hospital, the Metropolitan Convalescent Institution, and the Great Northern Hospital, £500 each.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Thorowgood, "On Gastric Vertigo"; Dr. Leonard Sedgwick, "A Case of Pulmonary Extravasation"; Dr. T. S. Dowse, "Some Points of Clinical and Pathological interest in an Obscure Case of Blood-poisoning".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. G. G. Gascoyen, "Cases of Syphilitic Re-injection, with Remarks".

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Barnes, "A specimen of Solidified Fat drawn from a Cyst by the Aspirator"; Mr. Adams, "A Case of Gunshot-wound of the Abdomen"; Dr. Daldy, "On Fever".

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Poore will show a patient with Paralysis of the Serratus Magnus: Mr. Hulke, "Notes of a Cure of Poisoning by Chloral"; Mr. H. Lee, "Case of Tumour removed by Elastic Ligature"; Dr. R. J. Lee, "Notes of a rare form of Cutaneous Disease in a Child".—Quekett Microscopical Club, 8 P.M. Mr. John E. Ingpen, "On Personal Equation, with reference to Microscopy".

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

CANDIDÉ ET CONSTANTER.—The address of the National Vaccine Establishment is 3, Parliament Street, London, S.W.

M.R.C.P.—A Fellow or Member of the Royal College of Physicians of Edinburgh has no legal claim to the title of Dr.

THE DISCUSSION ON CHOLERA IN THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

SIR,—In the BRITISH MEDICAL JOURNAL for November 7th, I find in a letter from Mr. A. R. Hall the following statement.

"In my reply. I pointed out that the circumstance which first induced me to write on the subject, in 1869, was the circulation of a number of questions, one of which was, 'Does collapse depend upon *paralysis* of the sympathetic nerve?' I said that I was aware many writers had held this view; but the whole object of my paper was to prove that the collapse depended principally on *irritation* and *hyperactivity* of the sympathetic system. *I am not aware that any one brought forward this theory before myself.*"

In reply to this, I beg to enclose the following extract from a paper of mine in the number of the *Dublin Quarterly Journal of Medical Science* for August 1867, p. 70.

"When we look at the symptoms and morbid pathology of cholera, and study the able treatises of authors of large experience and research, it would seem that conflicting opinions can only be reconciled by putting together some of the views of the writers on both sides, and assuming that the *blood-poison produces a highly polarised condition of the ganglionic nervous centres,* easily excited by the reflex action of some gastro-intestinal irritant into producing spasm of the muscular walls of the pulmonary and systemic minute arteries, imprisoning the blood within the veins, which are seen, on *post mortem* examination, to be filled or distended with black blood." I am, etc., W. JACKSON CUMMINS, M.D.,
Physician to the Cork South Infirmary and County Hospital.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MR. J. H. GORNALL Warrington).—The rule (taken in its literal sense) includes holders of medical degrees from any of the Universities, and of diplomas from any of the Colleges, in Great Britain and Ireland.

MR. LITTLE (Aylsham).—Medical men fully qualified and in practice will not be called upon to pass additional examinations in the event of the formation of a conjoint examining board.

PAGE BOYS.—Dr. E. W. Moore, a medical man in the suburbs, was recently summoned before the magistrate at the Hammersmith Police Court, at the instance of the Excise, for employing a male servant without having taken out a license, the servant being merely a page-boy in livery. The magistrate ruled that Dr. Moore was liable to a penalty, and inflicted the mitigated fine of £5.

THE CASE OF MRS. LEWIS.

SIR,—I have much pleasure in enclosing the additional list of donations to the case of Mrs. Lewis. I am, etc., D. DE BERDT HOVELL.
Five Houses, Clapton, Middlesex, E., November 14th, 1874.

	£	s.	d.
Anon.	1	1	0
Gardner, W. H., Esq.	1	1	0
Baker, W. Morant, Esq.	2	2	0
Sankey, W. H., M.D.	1	1	0
Davies, Herbert, M.D.	1	1	0
Fry, Frederick, Esq., Maidstone	5	5	0
Rogers, F. L., M.D.	0	10	0
Lynch, J. Roche, Esq.	0	10	0
Winser, —, Esq.	1	1	0
Hatherley, —, Esq.	0	10	0
Dale, G. C., Esq.	0	10	6
Forman, E. Baxter, Esq.	0	10	0
	15	2	6
Total amount	50	17	0

THE ASHLEY FUND.

SIR,—I beg to thank you for having kindly inserted in your issue of the 7th November the appeal to the profession on behalf of the widow and ten children of the late Dr. W. H. Ashley. Will you allow me to acknowledge the following additional contributions. I am, etc., ED. HART VINEN.
No. 17, Chepstow Villas, Bayswater, Nov. 16th, 1874.

Sir William Jenner, Bart.	£5	0	0
Sir William Gull, Bart.	5	0	0
Sir J. Cordy Burrows	2	2	0
Dr. Quain	3	3	0
Joseph Smith, Esq., Notting Hill	3	3	0
Gerald Tinson, Esq., Sandown	2	2	0
A Friend	3	0	0
J. T. Penhall, Esq., St. Leonard's	5	5	0
Frank Godfrey, Esq., Connah's Quay	0	10	6
W. H. Manifold, Esq., Liverpool	1	1	0
Dr. R. Payne Cotton	1	1	0
J. Roche Lynch, Esq.	1	1	0
Dr. Satchell, Kew	2	2	0
Dr. Bull, Hereford	2	2	0
"A Friend", by Dr. C. Swabey Smith	5	0	0
S. Smith, Esq., Redding	3	0	0
J. S. Mould, Esq.	2	2	0
Dr. E. Nash	5	5	0
Mrs. J. C. Morice	1	1	0
Miss Frost	1	0	0
Miss E. Frost	1	0	0
John Marriott, Esq., Kibworth	2	2	0

PUERPERAL INFECTION.

SIR,—I find that in midwifery practice, those who attend such cases are generally credited with the liability to communicate puerperal fever to their other lying-in patients, during one month in the case of medical men, and three months in the case of midwives, after which arbitrary terms it is considered that they may respectively resume their practice with impunity, on the ground that the exposure to fresh air alone purifies them sufficiently. That the latter are supposed to wear about three times the amount of clothing that the former do, may account for this peculiar distinction. In general practice, medical men who attend scarlet and other highly infectious fevers, are not generally credited with the liability to communicate them so readily to their patients; but the clothes worn by the patient himself are for many months a source of infection, unless they be specially disinfected by means to which obstetricians never think of subjecting their clothes.

That attendance upon midwifery cases may be safely resumed after a certain interval, but that no special interval is commonly considered necessary after attendance upon scarlet fever, etc., seems to me to give force to the question, whether puerperal fever really is communicated by the practitioner's clothes, or by some other means, such as by the hands of the operator, which, being repeatedly brought into contact with the structures involved, are often so fouled that frequent washing cannot free them from the smell, due solely to contamination, sometimes for two or three days, during which time one may have as many cases. I think this subject is worth consideration. I am, etc., G. S. S.
Ledbury, October 31st, 1874.

P.S. While on midwifery matters, let me add a word on the subject of the induction of premature labour. When celerity is not so much an object as safety, it is surely sufficient to rupture the membranes, using the dilator only when labour is found to be unduly delayed, so as to make up for the want of the natural dilating action of the entire amnion. But when time is short, is it not best to use the dilator first, and artificially rupture the membranes only when, by their toughness, they hinder the process of labour? By such means one gets the combined advantage of the artificial and of the natural even-surfaced dilator, which must certainly expedite the case more than the use of one alone. Of course, advantage must be taken of ergot, if its use be indicated.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

Medical Degrees and Titles.

Sir,—There must be some real or fancied superiority and advantage to medical men in being called "Dr.", or else why do men, at much increased cost—and study, too, in most cases—proceed to that degree of M.D., while some, on the other hand, already with the double qualification, go to Edinburgh and elsewhere for the L.R.C.P. for no other conceivable purpose than to proclaim a little professional pre-eminence in the eyes of the public (women, notably) to show or gain some advantage over their brother-practitioners, dropping the plain and honest "Mr." and conspicuously displaying the at least questionable title of "Dr."? All this is very unfair, both to the legitimate holders of M.D. and to the already doubly qualified men, too proud and too honourable to adopt such measures and to assume *quasi* titles. In the town in which I live, the men who most largely and extensively, by door- and wall-plates, etc., display the "Dr.", are L.R.C.P. men, and are the most tender and tenacious about the title; and yet I know such doctors as have already placed their names down on the St. Andrew's list, to bide their year and time when they can obtain the coveted letters, which should alone and do only legally give the title of Dr.; and I have heard of one gentleman who, on the L.R.C.P., always called himself Dr., when, on really taking the M.D. some time afterwards, he strongly and stoutly denied and disallowed the title of Doctor to all such as who, like himself, in quondam days, were not graduates of an University. Again, is it not a great injustice likewise to the numerous Bachelors of Medicine—of London, Edinburgh, etc.—who are distinctly enjoined not to call themselves Doctors, though clearly they, by courtesy, are so, and, having a degree in medicine, are much more entitled to be called Drs. than mere Licentiates in Medicine can be? And the practice also lead to the custom of M.B.s calling themselves Drs., in self-defence, as two have said to me, "I am more entitled to be called Dr., surely, than Mr. ——, a L.R.C.P., and I certainly shall not put Mr. on my door while my near neighbour calls himself Dr."

If a man wish to call himself, and be called legally, Dr., let him do as I have been obliged to do—take out an extra year of medical study over and above that required for College and Hall, pay the extra fees and pass the extra examination, or obtain the degree of M.D. in any legitimate way after examination, and then all will be right. If any L.R.C.P. can rightly call himself Dr., then I and hundreds of others have thrown away time, and money, and mental energy, etc., by working up for and taking the M.D.

I quite agree with your correspondent, "L.R.C.P.E.": "The public, however, settles the value of a man, not by his title, even though it be M.D., and frequently places very far in advance (and rightly, too) the L.R.C.S., or the L.S.A." Exactly; so say I. Then why need men, so very questionably, to say the least, call themselves Doctors? A man may be a fool, and yet have a title; be only Mr., and yet be a most wise and learned man, above any titled one, and envying none; yet the wise man would never adopt a title to which he had no claim.

I will only, in conclusion, add that, instead of a mere one or two hours' examination in two or three subjects, which I underwent at College and Hall—as much, certainly, as is exacted for the L.R.C.P.Edin.—I had to work for and pass both written and oral examinations in thirteen subjects, not to name classics, etc., and writing a thesis, before I could sign myself,

Yours, etc.,

October, 1874.

M.D.Edin.

Many conscientious men, I know, are deterred from taking the L.R.C.P.Edin. because they learn officially that they have no right to the title of Dr.

Sir,—I am very glad to see that the subject of the M.D. degree has again been mooted. It has long appeared to many of us who passed through our curriculum in the large medical schools, and under the heads of the profession in the metropolis, that a distinction is denied to us which is obtained almost as a matter of course by students attending classes in such comparatively small spheres of professional study as the towns of St. Andrew's and Aberdeen. Are not the opportunities of gaining a sound theoretical and practical knowledge of the healing art, and of acquiring skill in its application, which are afforded at Guy's or St. Bartholomew's, far superior to those enjoyed by gentlemen whose horizon has been bounded by the limits of the schools and hospitals of these northern towns? Why does not the University of Durham initiate a more liberal scheme, and accept certificates of hospital attendance and lectures from the London schools, as it already does from that of Newcastle? Perhaps a numerously signed petition to the University might have some effect. There are many of us who, since leaving the hospital, have conscientiously striven to maintain our knowledge at something like the level of the times: many of us could prove that we have worked hard at anatomy, etc., and give the branches of the "internal maxillary', or of "Meckel's", as glibly as when we passed our "first" at the college, besides carefully studying the best new works on pathology, therapeutics, etc. I trust that the matter may not be allowed to drop, but that one of the universities may be again induced to stamp official approbation upon faithful and earnest work.

Enclosing my card, I am, etc., Rusticus Expectans.

Sir,—It seems to me, from the tone of the various letters which I have read in the Medical Journal and in other professional papers, that the question resolves itself into one of filthy lucre, and not of honour. I agree with L.R.C.P.E. that medical men ought to endeavour to gain celebrity more by their talents than their titles. There is no doubt, however, that only those holding the degree of Doctor have any right to the title; but, at the same time, the words Doctor and Physician are synonymous amongst the general community, and any practitioner exhibiting the latter on his doorplate is soon dubbed Doctor. Thus he falls into the habit of having himself announced as Doctor at private and professional visits—*ergo*, he must, to be consistent, write himself so, and thus that miserable bit of pasteboard becomes a *casus belli*.

It is becoming very much the fashion to omit any prefix to the name on visiting-cards. By adopting this style, Licentiates might avoid the anomalous "Mr." without injuring the susceptibilities of their neighbours. Thus:

"J. Wilberforce Smith, Physician",

would look very neat, and would ensure the title of Doctor without its assumption. My own private opinion, however, is, that "medical man" and "doctor" have become, through habit, convertible terms, and every one qualified as physician and surgeon should be called "doctor". In the meantime, I agree with "Cosmopolitan", that university residence should be abolished, and thus the real article could be obtained by every practitioner possessing the normal amount of brains.

November, 1874. I am, etc., Pax.

Sir,—Will "Cosmopolitan" kindly say at what foreign university he obtained his degree of M.D., as I am a Licentiate of a College of Physicians, and would gladly undergo an examination by any respectable foreign university to obtain the degree, provided a residence be not required. At the same time, I beg to submit to the consideration of those gentlemen who say that Licentiates have no right to use the prefix of "Dr.", the text of the diploma of the King and Queen's College, and the answer of the College to queries regarding the same.

November 2nd, 1874. I am, etc., Hugo.

(Copy.)

"We, the President and Fellows of the King and Queen's College of Physicians in Ireland, having duly and deliberately examined A. B. in the principles and practice of medicine, and in the accessory sciences, and having found him well versed therein, do by these presents grant him a licence to practise in the faculty of physic, and do hereby certify that he has obtained, and is hereby entitled to, the title of 'Doctor of Medicine' and the qualification of Licentiate of said College. In testimony whereof, we hereunto subscribe our names and affix our common seal at the College Hall, in Dublin, etc."

(Copy.) "King and Queen's College of Physicians in Ireland,
College Hall, Kildare Street, Dublin.

"Sir,—In reply to your queries, I beg to inform you that a full report of the decision of the Master of the Rolls, in 'Re Trinity College *v.* College of Physicians', will be found in the Dublin morning papers of the 27th April, 1864, to the effect that this College has not the power to grant the degree of M.D., but in no way affecting the right of its Licentiates to the usual prefix of 'Doctor'.—I am, sir, your obedient servant, J. M. Finny, M.D., Registrar, etc."

Sir,—The assumption of the title of "Dr." by Licentiates of the various Colleges of Physicians of this kingdom is so opposed to the general feeling of the profession, that I venture to say that the only defenders of such a course are those who are directly interested in its use. It is certain that the whole body of general practitioners who do not possess the diploma are averse to the persons who hold it styling themselves "Dr.", and it is also a fact that the graduates of medicine feel indignantly on the point. The London College, whose diploma is most valued as being a really high class one, refuses to allow its Licentiates to make use of such a title; and it is to the Edinburgh College we must chiefly look as the authoriser of the assumption. Your correspondent "Cosmopolitan" has, in my opinion, arrived at the real explanation of the subject, when he says that it arises from the doors of the Universities being practically barred against the entry of the general practitioner of this country. It is very well for many to say that if a man have refused the opportunities afforded him during his student days of graduating, he must take the consequences afterwards when he is in practice; but see how many things there are to prevent his doing so at that time. He may be, and commonly is, totally careless of the matter; or, on the other hand, he may, through press of time or circumstances, be compelled to take two or three diplomas within his reach, and then go to practise what he has learnt. But all this does not prevent his becoming very highly educated in his profession by an after prolonged course of study; and yet, practically, however well up he may be hereafter, he is debarred from obtaining a degree, because he is either unable to leave his practice for a year or two, or is not highly enough qualified in general subjects to get through the matriculation and preliminary scientific examinations of the University of London. The degrees of this University are quite out of the reach of any but those who have given four or five years' undivided attention to study; and I think all will admit that this is quite impossible to the general practitioner.

I am no sympathiser with those who assume the title, for I hold it to be quite unfair for any person to pretend to be what he is not; and certainly the inference drawn by the general public from its use is, that the user is a Doctor of Medicine. I have often been asked if "Dr." So-and-so is not a Doctor of Medicine, and, on my answering "No", have been asked on what grounds he calls himself by a name which would signify that he is. I never refrain from ridiculing his pretensions, for I am one of the many who hold that "by no right, nor colour like to right" does he use the distinction.

But, sir, I really think the ordinary members of the profession have a fair case against the Universities. Why should not some of them be empowered to grant degrees to men of ten or fifteen years' standing in the profession, and this without limit as to numbers, if only the candidates could pass a fair examination in subjects connected with their profession? It is manifestly unfair to expect men to go all over their school-days again, and to compel them to turn their attention to the grammar and rudiments of Greek and Latin: for, after all, it is to be reasonably concluded that men who would be so well educated in their profession as to be able to obtain the degree, would not be ill educated in other subjects. But also, by the limitation as to age, those who applied for it would be likely to have already made their mark in the town in which they practised. I think the Council of the Association, representing as it does the general practitioners more fully than any other body, and having the interests of the profession most thoroughly at heart, should stir in the matter and endeavour to make some arrangement with the Universities. If they sent out a paper to each member of the Association, asking his opinion on the subject, a very fair idea of the feeling in the matter would be got at. I am, etc., A Member of the Association.

Sir,—The agitation commenced in your columns has done considerable service in bringing into public notice the number of qualified medical men who are in need of medical degrees, and who are willing to return any intellectual equivalent and pay reasonable fees for the honour that they seek. The matter should not be allowed to rest until the reasonable demand of obtaining them, by learning and examination alone (apart from any vexatious restrictions of residence, or age, or growing infirmity), should be conceded to them. The demand is so reasonable, that it may be expressed in a few words thus. One or more of the universities of this kingdom should admit to examination registered practitioners possessing two qualifications of five or ten years' standing, who have attained a respectable position, and are of unsullied reputation. The examination might be thoroughly rigid and testing in every way; and surely the ripened experience, observation, and reading of such men would be more than equivalent to one or two years' residence in one's youth at an university. In my own case, I have been reading, studying, and observing for sixteen years since I have been admitted into the profession; and, to say nothing of the extensive practice which I have seen, and am daily seeing, I am quite sure that my knowledge and skill have increased some hundreds per cent. since I left the medical schools: besides, since then, practice has been completely revolutionised, and if I had not continued a student, I should by this time have become rusty and useless: and I may go on for years, and toil after a hard day's work, to keep pace with advancing science, and yet, shame to say, there is not an university open to me in this kingdom to stamp me and give me credit for my conscientious toil.

There are scores of British graduates who obtained their degrees thirty or forty years ago, when medical science was in its infancy, who have never read or kept pace with science since, and whose opinion is consequently of little value. These are never called into question; whilst the foreign graduate of to-day, up to the best period of medical science, is refused registration, and looked upon with horror: and it may become a very important question, both for the profession and the public, whether a degree should not die out, or become extinct after a number of years, unless its possessor passed an additional examination at the end (say) of every ten years, to show that he has kept pace with the progress of his art, whilst at the same time every encouragement should be made to registered men to keep pace with scientific progress by granting degrees to them by examination alone, without residence, at the seat of the University. Unless something of this kind be done, foreign graduation will become general. Men will use the degree thus obtained; they cannot be prevented from doing so, and thus there will be established customs which ultimately become laws: foreign degrees will be recognised where the holders have also British diplomas; and the British Universities, persistently and blindly refusing to comply with the legitimate and equitable demands of the age, will become obsolete.

I doubt whether a petition to the Northern Lights would be different from the passage of the "idle winds which they regard not"; and it may be a question whether they have the power, without legislative authority, to comply with the petition if even they had the will. At any rate, I call upon them publicly for a response; and, in the absence of compliance with our legitimate demand, there will be a splendid opportunity for one of the foreign universities of scientific reputation to set up a board of examiners in London, who will give to registered practitioners a degree after five or ten years' standing, from a searching examination, thesis, and clinical tests, and thus meet a national want. I am, etc.,

November 1874. COSMOPOLITAN.

A HINT FOR THE TREATMENT OF SPERMATORRHŒA.

SIR,—In the spring of 1867 I was consulted by a gentleman, of the age of 32, under the following circumstances. He had been married three months. He was in good health, well formed, and muscular. The sexual desire was very feeble; there was no erection, and he had not been able to have connexion with his wife. There were no nocturnal emissions. Before marriage, he had been strictly continent. The genitals were normal and well developed. He was wearing a double truss, the pads of which were well applied to the external ring and pressed on the cords. In boyhood, he had an inguinal hernia of the right side, for which the double truss was then ordered, and he had worn it carefully ever since. I could find no trace of the rupture, nor had he seen anything of it for two or three years. I suspected that the pressure on the cord checked the passage of the seminal fluid along the duct to the seminal vesicle, and had gradually caused more or less complete suspension of the secretion in the testicle, or its absorption there. I advised him to remove the truss, to watch carefully for the reappearance of the rupture, and to wait patiently for the manifestation of sexual desire and power. He was not disappointed, for these were slowly but steadily developed, and in about six weeks he was able to have intercourse. As time went on, the improvement became complete, and he is now the father of three children.

This case suggested to me the employment of the double truss in the treatment of spermatorrhœa; and I have used it in several cases with signal advantage. The mention of one of these cases will suffice. It was that of a young man, aged 27, of a spare habit of body and highly nervous temperament. From the age of twenty to twenty-four he had indulged, but very moderately, in sexual intercourse, and had not had any sexual disorder. About this time he began to suffer from irritable dyspepsia and constipation, and ever since had been severely troubled with these ailments; and, in connection with them, nocturnal emissions had been manifested. These now occurred every second or third night, often more frequently, which exhausted him greatly, and rendered his life miserable.

Along with other means for the dyspepsia, constipation, and general health, I directed the use of the double truss, so as to exercise a gentle pressure on the cords both night and day. Improvement was quickly manifested: the emissions recurred with less and less frequency, and after a few months showed themselves only at intervals of one or two weeks; the general health likewise improved steadily. He wore the truss for about a year; and, though still delicate, has continued since to enjoy fair general health and freedom from spermatorrhœa.

I believe that in this case the spermatorrhœa was the result of the dyspepsia and constipation, conjoined with a highly nervous temperament; the undue frequency of seminal emissions, in their turn, intensifying the nervous exhaustion, and aggravating the functional disorder of stomach and bowels—a vicious circle, which embittered the life of the unhappy patient.

This has been the usual feature of the cases which have come under my care, and I have less experience of the ailment occurring in healthy young men in connection with disease of the urethra; but in these cases I have no doubt that the double truss would help very materially in the cure of the disorder. The pressure of the truss should be quite gentle; and, thus applied, there is abundant evidence to show that permanent impairment of sexual vigour need not be apprehended.

November 1874. I am, etc., A. F.

THE LATE DR. LANKESTER.

SIR,—In the biographics of the late lamented Dr. Lankester, an important matter is omitted that had a great influence on his career, for it fully accounts for "his not laying himself out for practice", and for his being "shut out" as physician to St. Mary's Hospital. This, according to the orthodox system of election, after his rejection at the London College of Physicians, was a matter of course.

At this important crisis, when we are bound "hand and foot" to the corporations by means of an unrepresentative Medical Council, a brief recital of the circumstances, as published by himself, after his rejection in 1847, in a pamphlet now before me, cannot fail to be useful and instructive. I give a brief outline of the occurrence, as related in the above named pamphlet.

Dr. Lankester was distinguished for great industry and talent: he had obtained honours in ten of the classes at University College, and had contributed numerous papers to the medical journals. Dr. Lankester passed the examination for the extra* license at the College of Physicians in 1841, and in 1847 he presented himself to be examined for the license, believing that, as he was a member of the College, and had passed one examination, he would only be called upon to answer practical questions. The doctor, however, was rejected; and the most amusing part of the affair was, that one of the examiners whom he supposed to have a great share in his rejection, had six years before given him the following certificate. "I can fully testify to his competency to fill the office of physician to a London dispensary with credit to himself and much advantage to the objects of the institution." Dr. Lankester, who lectured on Materia Medica, was also examined by a rival lecturer on this subject (Parliamentary Evidence, 1847). The subjoined is from Dr. Lankester's pamphlet.

"If I were a young man who had only had the five years' study which the College requires, I might consistently have been sent back for a year; but what must be thought of the value of the College examination which supposes that the knowledge it requires may be got up in twelve months, but could not be gained by eighteen years of hard study and diligent observation? At the same time, however, I am not ignorant of the fact, that there are gentlemen in London who in less than a year would engage to prepare me, as they have done hundreds of other members of the College, in such a manner as to insure my passing their examinations. I have never, however, condescended to the practice of cramming in the four examinations that I had previously submitted to and passed. I conscientiously regard myself at this moment as fitted to practise my profession; and if the College examinations are of a nature rather to test the schoolboy's qualifications, which may be got up by a cram, than those which have been gained by reading and experience at the bedside, I can only express my regret that public confidence should have been given to examinations which every member of the College must feel are not worthy of it."

Believing, sir, that this rejection at the London College of Physicians had much influence on his after career, and believing, also, that, under the circumstances named, it redounded rather to his credit than to his disgrace, I ask you to insert this letter. I am, etc., EDWARDS CRISP.

No. 29, Beaufort Street, Chelsea, Nov. 10th, 1874.

INJURIOUS DYES.

R. M. J. asks where he can obtain information as to injurious dyes, the symptoms which they produce, and the chemical processes by which they are to be detected.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Nov. 16th; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Hampshire Telegraph; The Sheffield and Rotherham Independent; The Standard; The Portsmouth Times; The Armagh Guardian; The Morpeth Herald; The Bradford Observer; The Stroud News and Gloucestershire Advertiser; The Glasgow Herald; The Liverpool Mercury; The Liverpool Porcupine; The Scotsman; The Hackney Express; The Bedale and Northallerton Times; The Broad Arrow; The Surrey Advertiser; The Sussex Coast Mercury; The Ulster Advertiser; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. J. Braxton Hicks, London; Dr. J. Matthews Duncan, Edinburgh; Dr. G. Johnson, London; Dr. J. Ward Cousins, Portsea; Dr. Sutherland, London; Dr. Collie, London; Mr. Ashburton Thompson, London; Dr. Begbie, Edinburgh; Mr. T. O. Wood, Maidstone; Mr. G. E. Herman, London; Mr. John Manley, West Bromwich; Dr. A. Harvey, Aberdeen; Dr. S. W. Smith, Pershore; Mr. J. Hakes, Liverpool; Mr. T. Lettis, Great Yarmouth; Mr. E. W. Thurston, Ashford; Mr. S. W. Moore, London; Dr. Styrap, Shrewsbury; Mr. J. H. Gornall, Warrington; Dr. Cassells, Glasgow; Dr. Birkbeck Nevins, Liverpool; Mr. T. P. Pick, London; Mr. R. R. Cheyne, London; Dr. Green, London; Dr. Fleming, Birmingham; Dr. P. A. Young, Edinburgh; M.D.Ed.; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Buchanan, Glasgow; The Secretary of the Statistical Society, London; Dr. A. D. Keith, Craigveigh; O. P.; Dr. Shettle, Reading; The Secretary of the Clinical Society; Dr. Goodridge, Bath; Dr. E. A. Meeres, Plymouth: Dr. John H. Gray, Bristol; Mr. G. Bland, Macclesfield; Dr. Ewing Whittle, Liverpool; Mr. T. M. Evans, Hull; The Secretary of the Manchester Medical Society; Dr. E. H. Vinen, London; Our Edinburgh Correspondent; Dr. A. Pullar, London; Dr. Roden, Kidderminster; Dr. Armstrong, Newcastle-on-Tyne; Mr. J. P. Wilson, Reading; Dr. Klein, London; Dr. Dr. Meymott Tidy, London; Dr. Carter, Liverpool; Mr. Erichsen, London; Mr. W. D. Napier, London; Sir W. Gull, London; Mr. W. Berry, Wigan; Dr. Popham, London; Mr. T. Holmes, London; Mr. Ralph Goodall, Silverdale; Hilliard, London; Dr. Taylor, Anerley; Mrs. Theobald, Leicester; Our Constantinople Correspondent; Dr. J. Milner Fothergill, London; Mr. D. Turner, London; Captain Pictet, London; etc.

BOOKS, ETC., RECEIVED.

Transactions of the Medical Society of the State of Pennsylvania. Vol. x, Part I. Philadelphia: Collins, 705, Jayne Street. 1874.

Notes on Surgical Nursing. By J. H. Barnes. London: J. and A. Churchill.

The Maintenance of Health. By J. Milner Fothergill, M.D. Smith, Elder, and Co. 1874.

Physiological Chemistry. By S. W. Moore. Smith, Elder, and Co.

On Functional Derangements of the Liver: being the Croonian Lectures delivered at the Royal College of Physicians in March 1874. By C. Murchison, M.D., LL.D., F.R.S. London: Smith, Elder, and Co. 1874.

Family Medicine for India. By W. J. Moore. London: Churchill. 1874.

Address delivered before the British Association assembled at Belfast: with additions. By John Tyndall, F.R.S., President. London: Longmans. 1874.

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* This extra license enabled him to practise as a physician seven miles out of London, but not within the sacred circle.

AN ADDRESS
ON
THE LAW OF MURDER IN ITS MEDICAL ASPECTS.

Read to an Audience of Medical Men assembled at the West Riding Asylum, November 20th, 1874.

By JOHN CHARLES BUCKNILL, M.D., F.R.S.,
Chancery Visitor of Lunatics.

GENTLEMEN,—When my friend Dr. Crichton Browne did me the great honour to ask me to read the Annual Address on this occasion, he assured me that I should have a highly appreciative, that is to say, a highly critical, audience; and that it would be well to bear in mind that this audience would not be composed of specialists. As my own studies have run much in the groove of the absorbing and important specialty, of which this noble institution is not only a great instrument, but, under the energetic direction of Dr. Browne has become beyond all such institutions a school of observation and a college of instruction, it was somewhat difficult to choose a subject which should be appropriate to this place and yet not be too special. My thoughts not unnaturally reverted to a question on which I had written twenty years ago, and the difficulties of which have certainly not been removed by the great attention which it has since attracted, namely, the responsibility of the insane for criminal actions.

This question, however, if not entirely, does mainly, and in by far the greater number of instances, present itself with reference to *one* criminal act—the greatest and most fearful, and yet, perhaps, the simplest by which society can be wounded—namely, the illegal taking of human life, under whatever name it may be expressed, murder, manslaughter, infanticide, and homicide by negligence. In looking for the grounds of responsibility for this great crime, and the reasons which ought to be valid for excusing it, one cannot fail to be impressed by the vast interest and importance which the whole subject of homicide, its varieties, conditions, and consequences, possesses for all the members of our profession.

The question of the irresponsibility of the insane is but a portion of this subject; its most difficult and unsettled portion, it is true. But all the causes and conditions of violent death essentially appertain to our department of knowledge, and the law can seldom be put in force in such matters, unless judge and jury be instructed and guided by medical evidence. We are the custodians of the golden bowl of life, and, when it is broken by violent hands, we are invariably called upon to describe and explain the catastrophe.

But, if the medical aspects of this great question may not be neglected by the lawyer, surely its legal aspects cannot safely be disregarded by the medical man; and it is to these aspects I now venture to call your attention. Were I to tell you of the legal text-books I have searched for information on this matter, you might have better cause to condole with me for misguided labour than to be surprised that the results in definite knowledge obtained have been small and unsatisfactory.

We have, however, been assured on the highest and most recent authority that the law of homicide is "not to be found in books or statutes, but in a kind of oral tradition and understanding among lawyers which is only to be acquired by practice; and that to any but practising lawyers it is impossible to declare what the law of homicide is". These weighty words are quoted from the report of a Select Committee of the House of Commons, whose labours have gone far to render this condition of the law an anachronism and a scandal. Their labours also appear to justify me in the belief that one who is not a lawyer may consider and debate this great question of the law of homicide, seeing that in the last session of Parliament it was referred for that purpose to a mixed committee of lawyers and laymen. Every member of Parliament, and every voter for a member, is a law-maker *pro tanto*; for laws are changeable, and are sometimes changed, and the whole body of law exists but by the consent, tacit or avowed, of the living men to whom it relates; and the custom of the legislature of referring new laws to the examination of laymen justifies me and you in taking this part of law, which cannot be administered without our aid, into our earnest consideration.

In the last session of Parliament, the draft of a Bill for the Amendment of the Law of Homicide was entrusted to Mr. Fitzjames Stephen, Q.C., and, after being read a second time, the Bill was committed to a Select Committee of eighteen members, comprising some of the strongest men, lay and legal, in the House of Commons. Mr. Lowe was chairman.

The committee examined Mr. Stephen, Baron Bramwell, and Justice Blackburn, and considered an elaborate written criticism of Chief Justice Cockburn. The committee finally agreed to report that it was not desirable to proceed with the Bill; but, as this report is dated July 21st last, it is possible that the lateness of their labours may have had something to do with their conclusion.

The objections entertained by the committee to Mr. Stephen's Bill appear to have been rather against its form than its substance. The Chairman thought it too abstract, and the committee considered that the law of homicide was too complex a subject on which to commence the task of codification. They say:—"It has been urged with great force that the law of homicide requires codification more than any other, because it is not to be found in books or statutes, but in a kind of oral tradition and understanding among lawyers, which is only acquired by practice. But, if this be so, it furnishes a conclusive reason against commencing to codify with the law of homicide, and, above all, against delegating such a duty to a Select Committee of the House of Commons. To make a code is a work of compression, simplification, and arrangement. It assumes the knowledge of the law by the codifier; but, in order to codify the law of homicide, it is necessary first to declare what it is, and that it is impossible, as it seems, to any but practising lawyers, for the reason stated above. It is better surely to begin with that which is easily ascertained, than to select a subject where we must take upon ourselves to declare the law first before we co-ordinate and condense it."

Perhaps, Mr. Stephen's Bill did err in being too ambitious an attempt to codify an intricate and obscure domain of law; but his method of classification appears to me to have been scientific, and most of the changes which he proposed to introduce seem humane and wise. The responsibility of postponing the amendment of laws so deeply condemned, and the responsibility of omitting to introduce another Amendment Bill at the earliest date, must weigh heavily on some one's shoulders.

I must not, however, longer delay to call your attention to some of those points of the existing law which will most interest you as medical men.

In the evidence, before the committee, of Mr. Stephen, Baron Bramwell, and Justice Blackburn, the law of homicide is most thoroughly examined, sifted, and divested of technicalities, so as to be made somewhat intelligible to the lay mind; and, although the result has been that the committee has reported that "it is not desirable to proceed with the present Bill", they have also reported on the existing state of the law of murder in terms so condemnatory, that it would appear to be an imperative duty on the part of Government to make further efforts without delay to reduce the chaos into something like method and system. It would seem to be impossible that the existing law of murder should be permitted to exist one unavoidable day after it has been reported on to the House of Commons in the following terms by such men as Mr. Lowe, the Solicitor-General, Sir Colman O'Loghlen, Sir John Karslake, Mr. Leigh Pemberton, and Mr. Russell Gurney. They say:—"The existing definition of murder, which may be roughly stated as killing with malice aforethought, is far too narrow; and the defect has been supplied, not by redefining the crime, but by subtle intendments of law, by which malice is presumed to exist in some cases where the action is unpremeditated, and even in some cases where death is caused by accident. It is most desirable that a state of the law under which people are condemned and executed by means of a legal fiction should cease. Finally, your committee earnestly recommend that the attention of Government and of Parliament should be directed to the present imperfect state of the definition of the law of murder. They believe that they have collected materials from which a redefinition of murder can be produced, and they are convinced that such a definition is urgently needed, not only to rescue the law from its present discreditable state, but to give clear notions to the public at large of the real nature and extent of this crime, and to prevent the confusion often created in the minds of jurors by an appeal to the doctrine, that murder cannot be without malice aforethought, which it is not always easy for the judge to remove. If there be any case in which the law should speak plainly, without sophism or evasion, it is where life is at stake; and it is on this very occasion that the law is most evasive and most sophistical."

It will be well to postpone inquiry into the grounds of responsibility for crime until we come to that part of the question wherein mental conditions must be discussed; and now to commence with those more simple cases of homicide in which the criminal is of sound mind.

One state of mind, however, is essential to all crime, namely, the intention to commit it; for, even in offences of omission or of negligence, the intention of negligence must be held to constitute the offence. If a man, by furious driving, kill another, the *intentional* disregard of the safety of others constitutes the reality of the offence; for if a horse took fright by accident, and the death of a man resulted from his furious pace, it would be homicide by misadventure, accidental death, and not criminal.

The word Intention appears now to be almost always used by judges and by lawyers, who are careful to use the right word; and it is a great improvement upon the old legal phraseology, which was apt to raise the question of free will and liberty of action in matters wherein metaphysical subtleties are rightly excluded. For if a criminal be compelled by necessity to commit crime, so also is society compelled, by the necessity of suppressing crime, to have him punished.

The materials collected by the Parliamentary Committee for a statute to amend the law of homicide seem to contain the following matters of especial interest to members of our profession.

1. The definition of murder and of manslaughter.
2. The difficulty of proving infanticide, and the proposed alteration of the law thereupon.
3. The responsibilities of surgeons operating without consent.
4. The plea of insanity.

Distinction between Murder and Manslaughter.—The broad distinction between murder and manslaughter appears to be this: that murder is killing with intent to kill or to do grievous bodily harm; whereas manslaughter is killing with intent to do bodily harm, but not grievous bodily harm. In the plain language of Mr. Stephen: "Broadly, and without waiting to dwell upon words, it is murder to kill a man by any act by which you either intend to kill him or intend to do him grievous bodily harm, or which you know will probably kill him or cause him grievous bodily harm, or which shows that you really do not care whether you do or do not. In short, gross personal violence exerted against a man, either with the intent to kill or to hurt him, or with an indifference whether you hurt him or not, is the worst kind of homicide, and is murder. Then the next worst is when, without meaning to kill him, or to do him any great harm, you do nevertheless mean to hurt him, and do kill him, and that is manslaughter. And the last kind of homicide is when you do not take proper care, or employ proper skill, and cause death in that way. It appears to me that those are the three natural divisions of the subject." This distinction between grievous bodily harm and bodily harm which is not grievous is a question which is invariably left to the jury, and, as such, is one of common sense rather than of law, although it is obvious that it is also one in which common sense must frequently be in need of medical guidance.

Take, for example, the too common form of violence, a blow with the foot or a kick. Now, a kick on the posteriors is always supposed to be rather an insult than an injury; a kick on the shins is fair play at football, and is a constant part of that which the men of Devon call play *par excellence*, that is, wrestling; but a kick on the head may cause death, and mean death, and two men were hanged for such a kick not long ago at Durham; and a kick on the abdomen must always intend grievous injury, and such a kick in the abdomen of a pregnant woman, I need not tell you what that imports. Then take the instrument. A blow from a bludgeon must usually be intended to inflict grievous bodily harm, while a blow from a whip or a rod will mean bodily harm, that is smart and pain, but not grievous harm; and yet there is every gradation in the size of sticks, from the club to the schoolmaster's customary cane. Baron Bramwell tried a boy at Chester for killing his brother by a box on the ear. A medical witness testified that he had never seen a skull so thin as that boy's skull was; and on this evidence Baron Bramwell directed the jury that they could only convict the prisoner of manslaughter.

It would appear that the old definition of murder, that it was killing with *malice aforethought*, is quite exploded and obsolete so far as the forethinking or premeditation is concerned. Mr. Stephen and the judges quite concur upon this point. The former says that decisions on cases "have really explained away the words malice aforethought till it becomes a matter of very great difficulty to see why the words were ever used, or what good there is in them"—"these unlucky words have been tortured to mean things which they did not mean". In the recorded cases in Russel, on Crimes, "you will find various torturings of the word malice, and twisting of it to mean what it never did mean".

Justice Blackburn, on the other hand, arraigns not the word *malice*, but, and I think with better reason, the other member of the compound term, namely, the qualifying adjective *aforethought*. He says,—"No doubt *aforethought* is a word that now has got a particular meaning put upon it by the law, or rather it is reduced to be no meaning at all, and there is no harm in striking it out of the indictments if it be worth while; but *malice* is, I think, the very essence of it, and I think, therefore, that it should remain as it is. *Malice*, as we define it, is found when a man, wilfully, and without lawful justification or excuse, does an act injurious to another; the law says that is *malice* against the person whom he has injured; and I think that its being *malice* in that way is the very essence of the crime." A man who, in a sudden fit of passion, stabs and so slays another, can, under no fiction of law, be said to have thought of the deed beforehand, but he has evidently a bad intention to kill, that is *malitium*, malice, and so the deed is murder. The old terminology is now simply a handle for advocates, which they well know to be illegal, and a loophole for juries. Malice, or some other term implying bad intention, must be preserved; but the condition that it must be *prepense* or *aforethought*, already extinct in practice, ought also to be abolished, as misleading and mischievous in the phraseology of the law.

Constructive Malice.—There is, however, the further question of constructive malice, which is most important. If A, intending to kill B, does not do so but kills C instead, A is guilty of murder. This point of law was thus illustrated by Justice Blackburn. "You will all remember the case of the Fenians who, intending to rescue Dasent and Kelly, fired shots at the van in which they were being conveyed, and killed a policeman. The man Dasent was in one of the compartments of the van, and afterwards it was found that the shot had gone through that compartment and penetrated the wood and gone out at the other side, and if Dasent had been standing upright it would have gone into his head and killed him. There is no doubt that that would have been murder as the law stands; but it would have been difficult to persuade any one that, in the popular sense of the word, the men had any *malice* towards the person killed, when they were risking their lives to rescue him. That is an instance of *constructive malice* which every one would wish to preserve." On this Mr. Lowe observed that, when Hamlet killed Polonius, taking him for his betters, he committed murder. But the law, as constructed by our judges and laid down in the text books, goes far beyond this; to an extent, indeed, which, if you are not already instructed on the point, will cause you no little astonishment.

Killing in committing Felony is Murder.—The rule of law is, that a man who, in the attempt to commit any felony whatever, in so doing, takes the life of another man, that is murder. The rule was laid down by Coke that, if a man meaning to steal a deer, shoots an arrow which, glancing from a tree kills a boy who was hidden in a bush, that is murder; and this rule was subsequently carried out in the case of a man who, shooting at a fowl with the intention to steal it, killed a man, for which the accused was found guilty of murder and executed. No doubt a man would not be executed in these days when the felony intended was so small an one as that of stealing a fowl; yet the difference of opinion on the point of the fowl case between Baron Bramwell and Justice Blackburn seems to have elicited the strong observation of Mr. Stephen, that these learned judges flatly contradict each other.

Mr. Stephen with righteous indignation observes, that if this rule is law, "it is a perfectly barbarous and monstrous rule, and that rule by itself would be an amply sufficient reason for calling upon Parliament to alter this law". But Mr. Stephen's remark seems only to be applied by him to what he calls "the notorious case about the fowl". But the rule has a wide application, and includes cases about which there may well be differences of opinion. Take the case from the Western Circuit, mentioned by Justice Blackburn, which illustrates a curious medical fact I had not before heard of, namely, that a short and slight stoppage of the breath, when a person is out of breath or in a state of excitement, will be rapidly fatal. Justice Blackburn says, "I have had evidence that throwing a shawl over the face under such circumstances would, in a few seconds, cause death". The case was that of "a poor girl who was returning home from church, and had to pass over a stile between two hedges, and a ruffian who had lain in wait threw a shawl over her head and dragged her along some distance, intending to carry her to a wood and ravish her. She died before she got there. No one can doubt that the man did not intend her to die; of course, he meant her to live, as otherwise he would not effect his object; and, probably, he was in ignorance that throwing a shawl over the face of a person in a state of excitement was so very dangerous; but nobody seemed to doubt at the time that, even though he did not mean to kill her, yet, as she died in consequence, it was murder, and he was hanged; and I should be very sorry to alter the law so as to say that he should not be hanged".

There were other cases mentioned by Mr. Stephen, not antique cases like that of the man who was hanged for killing a man when he shot at a hen, which happened in Charles the Second's reign, but cases which were matters of common conversation when Mr. Stephen went the Midland Circuit, and which, I think, will somewhat shock your feelings.

"There was" (he says) "a case at Warwick which I have heard quoted by those who did hear it. Three boys were walking through the streets of Birmingham to pick pockets; an old gentleman, who was fat and weak, comes walking along with a gold watch in his pocket. One of the boys gives him a slap to make him bend forward, and the poor old man did bend forward, and died by reason of that slap; I suppose some vessel was fractured. As he bent forward, the boy pulls out the watch from his pocket and hands it to the second and the second to the third. They were all tried and condemned to be hanged. There is another case, which arose at Lincoln, which I have heard of. A man has committed a burglary; an old woman, very much frightened, is in bed. The burglar, hearing her screaming, tells her to be quiet, and by way of frightening her, but not with any intention of hurting her, throws a pillow towards her, and in some way or other the shock kills her, and for that he was hanged".

The case tried before Baron Bramwell at Maidstone is still more to the point. An incendiary set fire to a rick-yard, and when the fire was at its height and extending round the yard, a man was seen rushing about in all directions to see if he could get out. He was not able to do so, and was burnt to death. In accordance with the rules under discussion, Baron Bramwell was obliged to tell the jury that, if they thought the man was sleeping in the barn when the prisoner set fire to the stack, he was by law guilty of murder. "But", he says, "it fortunately occurred to me to suggest that he might have been attracted to the fire and have gone to the spot to put it out, or for some other cause; and I said, if that was the case, it was the voluntary act of an intelligent agent getting into the mischief". Upon that the jury were glad enough to be able to acquit him. But Mr. Greaves says that Baron Bramwell was wrong even in that view of the case.

The difficulty appears to have arisen from including such offences as stealing a hen in the class of felony with such greater offences as burglary, arson, and rape. Such an absurd classification must, in the high ordeal of practice, lead to misunderstanding and mischief. This cause of difficulty is plainly seen and stated by Baron Bramwell, who says, "I have heard the late Lord Chief Baron say that the law was not so silly as people supposed it was, because the law says this, 'When a man is engaged in the commission of a great crime, which felony is, he must take all the consequences, though he did not foresee them'. That is all very well", says Baron Bramwell, "but stealing a fowl is not a very great crime; and the notion that a man should be found guilty of murder because he shot at a fowl to steal it, is *outrageous*". For my own part, I think the rule altogether unjust, and that a man ought never to be punished for a crime which it is clear he never intended to commit.

Murder without Intention to Kill.—Another point of nice legal importance is whether a man is guilty of murder who kills some one without any intention of taking life, but by some act which shows that he does not care whether he does so or not; and this point is illustrated by Mr. Stephen by the Clerkenwell explosion case, in which a man named Barrett exploded a barrel of gunpowder against the wall of a prison with the intention of making a breach in the wall through which the Fenian prisoner Burke might be rescued. The explosion killed a number of poor people outside the prison, against whom Barrett doubtless had no malice, and he was hanged for murder. Mr. Stephen supposes that the judge, in directing the jury, would say: "It does not matter at all, gentlemen, whether Barrett's general intention was to rescue Burke or not, because an intention to kill is not essential to murder; it is enough if he had the knowledge that it would probably kill or do grievous bodily harm, and whether he hoped or wished to kill the people or not does not matter, so long as he had the knowledge that he probably would kill them." And he subsequently adds: "If a man explodes a barrel of gunpowder close to Clerkenwell Prison, he does an act with the knowledge that it will, 'in all probability', kill somebody. If he had exploded a smaller quantity of powder, in an out-of-the-way place, and killed some one at a distance in some unlikely way, I should think it hard to call that murder. The Clerkenwell Prison case is the only one I ever knew or heard of in which the law as to homicide, by an exceedingly dangerous act being murder, had to be acted upon." But still, the difference between murder and manslaughter in a great number of cases turns upon the greater or less degree of probability that death will ensue.

Year and Day Limit.—We must, however, proceed to matters which have a more direct medical interest. One of these is Mr. Stephen's proposal to abolish the limit as to time of death which at present is a constituent of the crime of murder. The rule of law, as no doubt you are aware, is that to constitute murder the death must have occurred *within a year and a day* of the act which caused it. Mr. Stephen says that this, in substance, is a rule of evidence, and a very rough kind of rule of evidence, adapted to an age when there was very little medical knowledge. Coke says: "If he die after that time, it cannot be discerned, as the law presumes, whether he died of the stroke or poison, etc., or of a natural death; and, in case of life, the rule of law ought to be certain. I never happened to hear or read of a case in which the question about the year and a day rule arose; but I should think in the present day it would seem very strange that you should be able to say that a man died of a wound eleven months after it was received, but that at thirteen months it became perfectly impossible to say whether he did or not. It seems to me a rule of evidence, and that the prisoner under all circumstances would get the benefit of the doubt which would arise if death were delayed for any considerable time." I think that without presumption we may fairly assert that we have in many cases sufficient knowledge of our science to assert whether a death occurring long after the year and a day has been caused by violent or by natural means. I call to mind a patient who died under my own care, long after the legal limit, of mortification of the leg, caused by obliteration of the popliteal artery by a bullet received in a duel; and, no doubt, out of your large experience, you will be able to remember many cases even more illustrative.

Possibly this question is only likely to arise at rare intervals, since Justice Blackburn says that, in his experience, which is large, he never yet heard of such a case, or, indeed, of anyone being accused of murder or manslaughter where the deceased had lived anything like a year afterwards.

By a Drunken Man.—The question of murder committed when the criminal was drunk or mad from drink appears to me far more difficult and complicated than Mr. Stephen seems inclined to admit. He is asked, with reference to the insanity clauses of his Bill, whether he would include delirium tremens in the diseases which would prevent a man from knowing the nature of an act, so as to render homicide not criminal, and he replies: "Well, certainly delirium tremens is a disease, but it must affect a man's mind. If a man commits a crime when he is drunk, that is no excuse; but, if he drinks himself into a state of permanent madness, it is 'another thing'."

"Still, says Mr. Floyer, it is so far an excuse that a man is never executed for committing murder if he does it in a drunken row, is he?—I should be sorry to affirm that; I think I have known cases where men have committed murder when drunk and were hanged for it when they were sober.

"Do you think that there have been cases when men were hanged for committing murder at a time when they were so drunk that they were unable to distinguish the consequences of their acts?—It is a difficult question to answer; I do not at this moment remember such a case; I should have said generally that a man who was so drunk as not to know what he was about would hardly be likely to commit murder.

"The possibility of such a case as a man committing murder when drunk might be provided for under other sections?—That is one of the cases in which the question of discretion in the punishment arises. No doubt there is a great difference between a person who gets mad drunk and begins striking with a knife, and a man who uses the same knife with sober consideration; but there is hardly anything that I should guard against more carefully than admitting in express terms that drunkenness was any sort of excuse for crime. In certain cases it might be a reason for the Secretary of State, or the judge, to exercise his discretion; but I think it would be a public calamity to put into an Act of Parliament anything relating to drunkenness that looks in the slightest degree like saying that it is an excuse for crime."

Possibly Mr. Stephen has not had very large opportunities for observing the phenomena of drunkenness, otherwise he would scarcely have committed himself to the opinion that "a man who was so drunk as not to know what he was about would hardly be likely to commit a murder". He appears to see only two phases of the mental effects of drink, namely, recent drunkenness, in which a man knows what he is about and who ought not to be excused from conviction for murder, and delirium tremens, which he owns to be a disease which will release from responsibility. Knowing somewhat more of delirium tremens than lawyers are supposed to do, I think we must allow that it is not a frequent cause of homicidal violence. A man suffering from this disease is usually too much prostrated in body and mind, too fearful and stricken to commit homicidal violence, though he possibly might do so under the influence of delusion, attempting himself to escape from supposed murderers or fiends, in which case he would clearly be of unsound mind sufficiently to exempt him from responsibility.

But the delirium from drink which commonly results in homicidal violence is that which we recognise as *delirium à potu*, the delirium which arises from the continued excitement of the stimulant, and not that very different delirium, from the exhaustion which follows excitement, which from the tremors of debility, we call delirium tremens. This *delirium à potu*, the really dangerous delirium from drink, the lawyers do not appear to have recognised. In drunkenness itself also, as distinguished from delirium, there are varieties which ought to be recognised in relation to crime; that is, if the principle be assumed that the punishment of criminals ought to be guided by some knowledge of the conditions of their guilt. There is the stupid heavy drunkard whose faculties are drowned, and who commits crime as an idiot would, without knowledge or consciousness of the character of the act. Then there is the man whom drink stimulates to fury, and who commits crime knowing what he is about, but under the impulse of reckless passion. Men who have suffered from blows or wounds on the head or from sun-stroke are, we know, peculiarly liable to this frantic kind of drunkenness, and often from small amounts of stimulants. As they know their weakness and the dangers of indulgence, they ought to be held liable to very heavy punishment when they commit crime in their self-made fury, but certainly not to suffer the extreme penalty of the law. There is still another kind of drunkard whom no one would wish to shield from the full penalty of his crimes, and that is the man who drinks to nerve himself for a premeditated offence. The Malay who intoxicates himself with bang in order that he may be wound up to commit promiscuous slaughter, is fortunately a type of which we see no examples in this country; but men who plan and purpose criminal acts when they are sober, sometimes commit them when they have drank to give themselves Dutch courage. Victor Townley admitted to me that he had taken brandy and opium to nerve himself for the perpetration of that atrocious murder for which he undoubtedly ought to have been hanged.

Murder without Injury to Person.—Mr. Stephen introduced into his Bill a refinement which we may call murder without injury to the person. The draft ran thus: "It is immaterial whether the Act by which death is caused did or did not inflict actual injury on the body of the person killed"; and he gave the following medical illustrations of his meaning. "Suppose a man wants to murder his wife; and suppose that she is ill, and the doctor says to him, 'She is in a very critical state; she has gone to sleep, and, if she is suddenly disturbed, she will die, and you must keep her quiet.' Suppose he is overheard repeating this to another man, 'I want to murder her, and I will go and make all the noise I possibly can for the purpose of killing her.' You may imagine the evidence to be quite conclusive on that point: he goes into the room, makes a noise, and wakes her up with a sudden start, and frightens her; and she does die according to his wish. It seems to me that this act is as much murder as if he had cut her throat. Or suppose a case like this: A man has got aneurism of the heart; and his heir, knowing that, and knowing that any sudden shock is likely to kill him, suddenly goes and shouts in his ear, and does so with the intent to kill him, and does so kill him. It seems to me that, if that man is not punished, it is a very great scandal, for the act is just as bad as if he had killed him in any other manner."

Of course the question arose in the Committee, whether in such cases there was not injury to the body of the person killed. Mr. Lowe thought the injury was a blow inflicted upon the drum of the ear. The judges, however, appear to have been unanimous in the opinion that killing by fright or strong emotion could not be made murder without peril to justice and consequences not contemplated by the framer of the enactment. It seems to me that this was the weakest and most assailable point of Mr. Stephen's very able draft, and that it did more to prejudice the Committee against the Bill than anything else. It was carrying the idea of murder into the abstract, and would have been applicable to the case of a man breaking the heart of a girl or bringing down the grey hairs of his father with sorrow to the grave.

Chloroform.—Another question raised by Baron Bramwell, somewhat abstract in appearance, but liable to be very practical to members of our profession, was the character of the offence which would be committed by a surgeon who administered chloroform, and performed an operation without the consent of his patient, the man dying of that operation. The question arose on the clause: "Homicide by an act consented to by some one who has a legal right to consent to it is not criminal, if the act is done in good faith for the purpose for which it was consented to, and with due knowledge, skill, care, attention, and diligence."

Baron Bramwell, upon this, puts the following query: "Does this exclude the case of a forcible administration of chloroform to a sane adult not consenting? That is, supposing medical men make up their mind that the best thing that can be done to a man is to cut off one of his limbs, and do so under chloroform. Perhaps he does not consent."

Mr. Lowe asks: "A great many teeth have been drawn in that way?—Yes; Mr. Stephen says, 'I suppose this question means the administration of chloroform for some lawful purpose; for example, where a surgeon considers it necessary, in order to render possible an operation necessary to save life. If this is what the question means, I think such cases would fall under Section 18.' Then he says, 'If the question means the administration of chloroform for the purpose, say, of robbery', it would not. Then he refers to Sir Donald Macleod, some of whose limbs were amputated at St. George's Hospital when he was not in a conscious state so as to be able to say whether he consented or not; and he says, if done in good faith, it would, by Section 18, be innocent. I suppose this would be so as the law stands, but I know of no direct authority for it.' Neither do I, one way or the other; but I suppose it would be as the law stands. I suppose that a *bonâ fide* operation upon a man when he was insensible, which caused his death, if done for the best, would not be now a criminal act."

Mr. Russell Gurney: "If done against his consent, it would be a more difficult case?—Yes; but Mr. Stephen says Section 18 gets rid of these difficulties, because he says that such acts are done in good faith. My criticism is a small one; but I say, if that is so, it seems to me to show that Section 19 is needless, because Section 18 would include every case that ought to be included in Section 19. However, that is a very small matter.

"But would you have the doing it forcibly to a sane adult allowed to be not criminal?—I do not say that I would."

Mr. Lowe: "That is a case under Section 18, is it not? Suppose you object ever so much to have your leg taken off, if they thought it necessary, they would be protected under Section 18, whether you consented or not?—Yes. It struck me that, if Mr. Stephen's answer to my difficulty upon Section 19 is a well founded one, that is, that Section 18 would protect the people who, I say, ought to be protected, it shows that Section 19 is needless.

"Would not Section 19 embarrass the construction of Section 18?——Yes. I ought to know the law, but I declare I do not know whether this would be manslaughter. If people were to say, 'The best thing that can be for that man is to take his leg off', and he says, 'I do not consent', but nevertheless his leg is taken off and he dies, and the jury is of opinion that it is a beneficial operation, I am sure I could not say offhand whether that would be manslaughter or not. Criminal homicide I do not think it would be, but I do not know.

"It is very hard to suggest a principle upon which it could be taken out of that section, is it not? He causes the man's death against his will.—He causes the man's death against his will; for that the man can maintain an action for trespass against him, I think, is quite clear."

An action of trespass maintained by a dead man seems a curious remedy, but I suppose it could be instituted by his representatives. However that might be, I think the chloroform question was put before the Committee in too narrow a form, as applying only to the removal of limbs. Cutting off a limb without consent, under chloroform or otherwise, no doubt is a trespass; for the loss of a limb is a lost possession. But would the same rules apply to tying an artery or cutting for strangulated hernia, which I have myself done under chloroform, notwithstanding the vehement refusal of the patient, who was, however, not of sound mind? Then there is the case of a man who dies under the hands of the surgeon, who attempts to save him from the commission of suicide against his will. The following case occurred when I was a student. A man intending to commit suicide bought half an ounce of arsenic, as he supposed, and swallowed it, telling his wife what he had done. Medical aid was procured, and the supposed arsenic was forcibly removed by the stomach-pump; but the man died. On the inquest, it was proved that the chemist, suspecting the intentions of his customer, had given him powdered gypsum instead of arsenic; and it was found that death had been caused by injury to the coats of the stomach produced by the tube of the pump. Was the surgeon in this instance guilty of criminal homicide, or could the representatives of the dead man maintain an action of trespass?

It is probable that, in most cases of the forcible administration of chloroform for the purposes of operative surgery, the patient may fairly be considered to be temporarily or permanently not of sound mind. A man struggling to carry out a suicidal intention may well be considered of unsound mind; and so also may a man who is incapacitated from forming a judgment as to the measures needful to preserve his life by delirium from the shock of accident or disease.

Infanticide.—I now come to the last subject which I shall be able to bring under your notice to-day; namely, that extremely unsettled question, the proof and punishment of infanticide. On this subject, a separate Bill was drafted, in favour of which the judges were agreed; and the Committee, having made amendments thereon, reported it.

The question, as discussed before the Committee, divides itself into two parts: 1. The period at which an infant, being born or newly born, becomes a person, and taking its life becomes infanticide; 2. The condition, as to soundness or unsoundness, of the mind of a parturient woman.

The Bill deals only with the first consideration. No doubt you are aware that, to constitute infanticide, the child must have wholly emerged from the body of the mother, and hence have had a separate life from that of the mother, before its own life was taken. It is not sufficient that the child should respire in the progress of its birth. Until it has wholly passed out from the body of the mother, it is *pars viscerum matris*. There must have been an independent circulation in the child, or it cannot be considered alive for the purpose of the charge of child-murder. The fact of its having breathed is not a decisive proof that it was born-alive, as it might have breathed, and yet died before birth. The importance of continued connection with the body of the mother by means of the umbilical cord seems to be a moot point. Baron Parke said he should direct the jury to convict the prisoner, and reserve the point. The prisoner, however, was acquitted, and the point was left undecided. It was subsequently, in another case, held that murder may be committed on a child still attached to the mother by the umbilical cord. Taylor says, but I know not on what authority, that "the law humanely presumes that every new-born child has been born dead, until the contrary appears upon medical and other evidence". It is, however, abundantly plain that the conditions of child-murder above stated must make the proof of guilt exceedingly difficult, and conviction almost impossible. Taylor says that, in Middlesex in 1863, "in all instances where the evidence of guilt was so clear that coroners' juries have found verdicts of wilful murder, the prisoners have subsequently been acquitted on their trials".

Justice Blackburn states the difficulty, and the remedy provided by the Infanticide Bill, in the following evidence. "The practical difficulty which we always find in that is, that it is almost impossible to get distinct legal evidence to show whether the child had become a person, even taking the definition given in the Act here, that a 'person' includes every living child which has completely proceeded from the body of the mother, whether it has or has not breathed, and whether it is still attached to the body of the mother or not; but does not include a child which has breathed in the act of birth only, and has not lived after completely proceeding from the body of the mother.' Practically, the child is born when there is no one present but the mother; and the medical evidence of those who have seen the body cannot determine whether it had been wholly separated from the body of the mother, and was wholly delivered before it died or not. They can show, and they do show, that it has breathed; but a child may breathe after the head is out of the body of the mother, and very often does for a long while, before it is completely separated; and the doctors tell you the blood has circulated, but that again is not decisive. The result is, that you cannot prove that the child has been actually separated from the body of the mother, and become a person, on satisfactory evidence—evidence, I mean, on which a jury will act; and the consequence is that, except for concealment of birth, the mother does very often escape when she has really been guilty of murder, or of culpable negligence, causing the child to die. What I would do myself would be this: I would make it a substantive felony for the parent of a child, either before, or at, or during, or immediately after the birth, to cause the child to be prevented from being born alive, or to die; when that was done intentionally, I would make it a substantive felony, to be punished severely. That would be met by the Infanticide Bill which I have had shown to me."

The judge does not concur with Mr. Stephen's remedy, which would be simply to alter the designation of a person; and, on the other hand, Mr. Stephen does not like the proposed alteration of the law by the Infanticide Bill, by which "a loophole is got rid of, which one need not go out of one's way to stop up". The result of the Infanticide Bill would, he points out, be nominally to diminish the penalty, that is, by making it felony, but not child-murder, but practically to increase the penalty by giving penal servitude not exceeding ten years, whereas the maximum penalty for concealment of birth is imprisonment for two years.

Justice Blackburn would be willing that concealment of birth as a distinct offence should be erased from the tables of the law which may metaphorically be imagined to exist; seeing, as he says, that it sometimes hits persons who are not at all blameworthy. But, on the other hand, he would retain the crime of child-murder, in order that such accomplices as the notorious Mrs. Winsor should not go without their deserts; and this is provided for in the fifth clause of the Infanticide Bill.

The state of mind of puerperal women in relation to infanticide is dealt with by Mr. Stephen in a spirit of pitiful and indulgent humanity which is not very common among criminal law-makers. Whether he goes too far or not, we mental physicians must leave to the more intimate knowledge of our obstetrical brethren. While as men we cannot fail to feel commiseration for the shame and terror of a parturient woman who is bringing forth a child without the sanction of the law, the church, or society; and, as physicians, we must recognise the profound nervous disturbance which the act of parturition very commonly occasions; we cannot shut our eyes to the fact that the destruction of a child by its parent is an act of deep moral depravity. The life of a base-born child may not be worth much to the community, but the depravity which leads to the destruction of offspring is so profound that the opinion of society as expressed in law may easily lead to evil consequences if it should lean too much to the side of indulgence.

Mr. Stephen says, "I have heard many trials for child-murder, and I believe that it is the almost universal experience upon that matter, that it is exceedingly hard to get a jury to convict of child-murder". . . . "Besides that, there is the strong sympathy, which it is never safe to neglect, and which always will exist with the miserable condition of the woman."

And again, "It is the honest truth after all, that a woman who has a child born, is in such a state of mind and in such circumstances that it is impossible not to feel that if she kills her child the crime is extenuated; that is the plain truth, and I would provide for it accordingly; I do not like making it a separate crime."

In a different spirit Justice Blackburn says, "As to puerperal insanity, if it exists, I think it ought to be a defence to exactly the same extent as other insanity".

If, however, I understand Mr. Stephen aright, his remarks do not apply to puerperal insanity strictly so called, but to the unhinged condition of mind, which is, with more or less truth, attributed to all puerperal women; and, on this point, I think we are in need of accurate medical data. That a woman who can destroy her own child must be in a "miserable condition" can admit of no dispute; but we meet with such women who, in defence of their own interests, are at the very time able to act with the fullest powers of intelligence and fortitude. We also know that, in many of these cases, the act of parturition could not have been difficult or prolonged, and that an easy process of parturition commonly leaves a woman's mental faculties and her nervous equilibrium undisturbed. The subject is one which richly deserves the most painstaking attention of the profession.

I must now conclude my long, and I fear discursive address, leaving the question of responsibility, as affected by mental disease, to another opportunity for discussion. It is dealt with in this report with great fulness and with the authority of the highest legal opinion, and the law of homicide can scarcely be dealt with without special regard to its solution. It is, however, thoroughly specialist, and I have thought, I hope not unwisely, that the parts of this topic I have dwelt upon would be more generally interesting to my audience. That before long a statute must be passed to render the law of homicide intelligible and precise, can scarcely admit of doubt. A select body of statesmen and great lawyers has formally reported to Parliament, that the present state of the law is *discreditable*, and that it is impossible to any but practising lawyers to declare what it is. These gentlemen have, for the present year, laid upon the shelf an experiment made to codify this law with every advantage which learning and skill can give, upon the ground, inadequate as it would seem, of the difficulty and intricacy of the task. The highly distinguished and experienced lawyer who has made this experiment to reduce method out of chaos, says of the evidence of the learned judges who have been examined by the committee, that "they flatly contradict each other"; and, in another place, "if you compare this Bill with the common law from which it is compiled, it is infinitely more certain, and it really has reduced to a certainty many cases which, by the common law, are so uncertain, that we have these *two learned judges diametrically contradicting each other* upon them, though they are points of the first importance, before this committee".

And again, in answer to the hostile criticism of the Bench, he says, "I must add, with regard to a large part of Mr. Justice Blackburn's evidence on this subject, that it is impossible for any one who has had any experience of the administration of justice to be unaware of the fact that the judges are under an *irresistible temptation*, if I may say so, *to like a system in which they are not tied down by definite rules.* When a man has acquired, by long experience, perfect familiarity with that *unwritten understanding* about the law which *really constitutes the law* for all practical purposes, when he feels himself in a position to say, 'That case is no longer law, although Hale said it was, and this case is no longer law, although it has been always considered to be so', *he occupies a position from which he does not like to be ousted.* Of course, if the judge, instead of having to hear a variety of arguments drawn from all sorts of sources, upon the effect of which he is to decide, is simply to refer to a few words in an Act of Parliament, the position which he occupies is, in every way, *less agreeable to himself, and it cannot be otherwise.* For my part, however that may be, I think, for the public, it is very much better that the law should be distinct and certain, and that this quasi-legislative authority should not be left in the hands of the judges."

The law of murder, then, is declared to be such that the judges contradict each other; and yet they make it themselves, and maintain it in its present discreditable state, because it enables them to occupy a position, as its authoritative exponents, which is agreeable to them, and from which they do not like to be ousted. I think you will conclude that Mr. Fitzjames Stephen is not only learned and skilful, as the Committee declare him to be, but very outspoken. With regard to our great judges, I hope you will also think that he has been a little hard-spoken and too severe.

ON THE APPLICATION OF THE GALVANIC CAUTERY TO GYNÆCOLOGY.*

By J. BRAXTON HICKS, M.D.Lond., F.R.S., F.R.C.P.Lond., etc.,
Obstetric Physician and Lecturer on Obstetrics at Guy's Hospital; Examiner in Midwifery at the Royal College of Physicians of London.

THE galvanic cautery having been now for some time in use, and the assistance it has afforded to those engaged in gynæcological practice having been fully recognised, I have thought it may be useful to this meeting if I were to state my experience of it, gathered from hospital and private practice; and I am emboldened for a short time to occupy your attention, because, so far as I am aware, no one else has, in England, yet spoken on the subject, and also because I have employed it frequently, especially in Guy's Hospital, having had for some years the advantage of its apparatus.

I have no intention of entering in this paper into a complete discussion as to the advantage of cautery over other modes of operations, though, of course, incidentally remarks will be made on the subject; nor shall I occupy any time in the narration of a series of cases in illustration.

I may state, first of all, that I have principally employed the arrangement known as Dr. Middeldorpf's, with some modifications suggested by myself and others. It may be susceptible of further adaptation to the requirements of our department; yet, on the whole, it is a very efficient collection of instruments. I have asked Messrs. Krohne and Sesemann to be present to exhibit the apparatus in action.

The battery for our purposes should be composed of not less than the following power.

1. Grove's combination of four elements, each of not less than 8 by 6 inches of platinum sheet;
2. Or Bunsen's, with carbon plates not less than 14 inches by 8; with the zincs in due proportion.
3. A bichromate battery of larger size may also be employed; but, unless the action can be made more constant than at present, I cannot recommend it. It has the advantage of being free from the strong acids required by the other.

The full power of the above named batteries is required only in the removal of the broad-based parts within the vagina, as, for instance, a broad-based fibroid; because, from the amount of fluids surrounding the wire loop, a large amount of current is carried off by the tubes which hold the wire, which, as now made, are not perfectly insulated; also because, the length of the wire being great, the heating power is lessened thereby. For the lesser work, two cells, or even one cell, are sufficient. In no case should the wire be made white-hot; while, on the other hand, the operations within should not be too long in progress, lest the heat affect the adjacent parts too severely, as is the case when the battery is of too low power. Perhaps it is better to employ three cells at first; and, should this not be powerful enough, the fourth can be added. I may further remark that, of course, the size of the wire influences the heating power of the battery; but the large wire is generally the best. An excellent plan is to coil two smaller wires into a rope, it being less liable to break than a single wire of the same weight, and is more flexible.

The galvanic cautery, by the varied character of the form into which the platinum conducting wire is shaped, is a very different thing from either the old red-hot irons or the more recent gas-cautery. We can, however, imitate the red-hot iron by spirally coiling the wire round a porcelain cone, or on the flat base of porcelain cone, returning it through the centre of the cone. The whole can be made of a white heat; the advantage of the cone being, that it retains a body of heat not so readily extinguished by the coolness of the tissues as is the wire alone. But it has the advantage over the red-hot iron in that its action is continuous. After a time, it becomes clogged with the inspissated and charred fluids, which can be scraped off easily. As is well known, in ordinary surgery, the cones are adapted to the destruction of sessile growths—surface-burning—where the wire cannot be passed beneath, so as to completely remove them. It is also adapted to such growths where the surface is very irregular and the inequalities have to be carefully followed. By the loop, we can imitate the scalpel, with this advantage over it, that no bleeding follows, at least generally; and, if there be a vessel not well closed, we can, by applying the cone to it, effectually control the loss. At the same time, it will also be perceived that there is no chance of plastic union. The surfaces thus treated must be healed by granulations.

I think all will agree that there is a great advantage in some cases in the searing of the surfaces. A shield is thus made against the ready absorption of unhealthy fluids; and in the case of cavernous structures, such as the penis and uterine tissue, this is very important. The *écraseur* to some extent effects the same closure of the vacuities as of the lymph-spaces, vessels, etc.; but, where the surface is not pedunculated, there is a very great tendency in the surface to crumple up under the grip of the chain, wire, or rope, thus rendering the action imperfect; or, as in the case of a sessile malignant disease of the os uteri, where hard and soft are intermingled, the *écraseur* is pretty sure to glide off, scraping off, as it were, only the softer portions.

The wire loop of the cautery is arranged so that it is screwed up like the *écraseur*, and, indeed, it should be used slightly in this manner at first, so as to indent the pedicles a little; and then, as the red-hot wire cuts through, the screw should be used in such manner as that the two actions proceed *pari passu;* and thus there is made a remarkably precise division, as with a knife, without any tendency to crumple up.

However, we can, on the outer part of the body, dispense with the machinery of the loop, and, holding the wire between binding screws at the end of the conducting wire, draw it alternately from one side to the other. This is a more rapid method, and is adapted to batteries of low power. When the part to be removed has a canal passing through it, as the penis or cervix uteri, the galvanic cautery is much better than the *écraseur*, because the latter tends very much to obliterate the canal by the severe compression which the tissues undergo; while the cautery acts very slightly so.

Where narrow pedicles contain large vessels, as in some pendulous tumours — ovarian, for instance — the red-hot wire only is not sufficient. A simple line of searing fails to weld together, by the kind of fusion necessary in the process, the walls of the vessels. It requires a much more protracted action; and this can only be accomplished by employing the largest cones, acting upon half an inch of the pedicle: When this half-inch is fused into one mass, then the patient is safe from hæmorrhage, seldom before. During this action, the peduncle should be held firmly constricted by some plan, as a clamp, ligature, etc., so as to prevent any bleeding from interfering with the efficacy of this process of welding.

The capability of placing either the needle, cone, or rope *in situ*, before heating, is the peculiarity of the galvanic cautery, and the advantage will be at once recognised by all. In small fistulæ, we can insert the nævus-needle belonging to the apparatus; and, when carefully placed, it can be heated. This would be practically impossible with a simple red-hot wire. Where, also, we desire to pass it into the cervix uteri, or into the centre of a fibroid, it is clear that it affords us an almost unique opportunity. Again, in division of sphincter in fistula ani, the wire being passed up the fistula into the rectum and brought out at the anus, the section is made very quickly, with little or no bleeding.

I must ask permission to give a short account of the application of the galvanic cautery to the several diseases for which it has been employed.

Epithelioma of Vulva and External Genitals.—The application to this class of disease in this position varies little from that of the rest of the body generally, except that the surfaces are more irregular. Where they can be wholly removed by passing the wire beneath it, it is much the best plan to do so, assisted by the usual needles; otherwise the disease must be attacked from the surface, and followed up by a second or even third application, till the whole is removed. The depth to which cautery-action extends is not so great as we might at first sight expect; so that it is well, in order to avoid frequent repetitions, to be thorough at first. However, in thin and important parts, it would be better to repeat than to destroy too deeply.

Where the clitoris has to be removed, we should be prepared for hæmorrhage, if we sever too quickly in this case. We must be slow in division, and be prepared with the cone; and, if this fail, then employ a ligature, which perhaps it would be best to apply before division, loosening it as soon as division is complete, to see if bleeding threaten.

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* Read before the Obstetric Medicine Section at the Annual Meeting of the British Medical Association at Norwich, August 1874.

We may, in the smaller and more easily lifted growths, only pass the wire beneath, while the diseased portion is held up by a forceps. We should, however, make sure that the disease is well lifted, and none left.

Condylomata may be treated in the same manner; generally the larger part may be removed by the wire, and the remainder by the cones from the surface. Where the disease is accompanied by ulceration within and up the urethra, the cautery may be lightly employed as the potential caustics are to produce a healthy surface.

Vascular Growths of the Meatus are readily destroyed by the red-hot wire; the small wire does well. One cell is sufficient for these.

Malignant Disease of Os Uteri and Cervix.—In attacking malignant disease of the vagina and os uteri by the galvanic cautery, we are guided in our selection of the kind of instrument according to the amount of projection the disease has attained. If it be sessile, then, of course, the base must be reached through the surface; and the porcelain cones are best suited. Yet, one objection against this mode is found in the cloud of smoke which obscures our vision through the speculum. To overcome this, we can cut off the current, and blow out the smoke. This, however, detains us, though not long. If the disease be sessile and small, and can be brought straight before us, then we can use the flat porcelain spiral, which can be pressed flat on to the surface. When we wish to destroy epithelioma of the cervical canal, the small cone is well adapted; which, being passed up into position, can be heated by establishing the current.

Where the diseased part projects well into the vagina like a mushroom, which is very common in epithelioma of the os, then nothing answers better than to employ the loop, which should be adjusted as near the roof of the vagina as possible, without drawing down the uterus. If the cervix be very large and the current feeble, the parts adjacent may become much heated. It is well to intermit the current, and even to throw up cold water, after which the current may be re-established. When the disease threatens to run on to the vagina, and the cervix is but short, then the adaptation of the loop should be carried out very carefully, and the screw be used very carefully so as to cut as cleanly as possible. Generally, the finger can be allowed to remain during the severance, because the indentation produced by the tightening of the loop sufficiently protects it from contact with the wire. The conducting tubes should be placed anterior to the mass. Sometimes, owing to the small vulva or large size of the disease, it is difficult to carry a ready-made loop round the part to be removed. I have, therefore, got Messrs. Krohne and Sesemann to make an arrangement similar to Gooch's cannula, employing the platinum wire-rope for the twine, and substituting ivory for the metal rings which hold the cannulæ together. It is not difficult to surround the mass in the same way as we do by the older instrument. The rope I have used is composed of two strands of small wire. This plan I have found very useful.

Polypi.—These can be removed by the ordinary loop, or the arrangement just mentioned. This cautery is especially suitable to those cases where the polypus is broad based, as is sometimes found in those of the cervix. In cases of polypi springing out of the anterior cervix, much danger is run in the use of the *écraseur*, for, as it tends somewhat to glide off the rotundity of the polypus, it approaches the bladder, and is very liable to involve the posterior wall within its grip, or, if not so much as that, yet, to include a great portion of the anterior cervical wall. If, to avoid this, we employ scissors, we may have severe bleeding, as I have myself seen. The wire cautery will avoid this trouble. Where the polypus is broad based, or a part of a fibroid still remaining in the uterus, if we consider it necessary to remove it, which we may do if it cannot descend further down in consequence of the small size of the vulva, then the wire cautery is the best means of removal.

Where the polypous form is scarcely completed, as in the extrusion of a fibroid before it has descended through the os, the double cannula can be brought into use with much advantage, especially if the growth project from the side rather than the fundus.

Fibroid Tumours.—The centre of a fibroid tumour can be readily cauterised by the galvanic cautery. Supposing the os be open, the capsule incised, and with it the lower portion of the tumour, one of the cones can be inserted into the opening and burnt in as far as the centre of the growth; or, instead of the cone, the nævus-needle may be employed. The effect of this action may be to totally destroy the tumour, which will be extruded by the uterine action in a sloughing state, or more safely to cause it to slowly disintegrate. I have found this an operation easy of management. Where it is doubtful how much of true uterine tissue may be dragged down by a tumour, as in a case of suspected inversion with fibroid attached, this form of cautery is excellently adapted.

Amputation of the Cervix for elongation is readily managed by the loop. Although it is a safe procedure, it may be open to question whether the scissors first and two stitches afterwards to join the mucous membrane over the stump is not the best plan. To discuss this question, hardly falls in with the intention of this paper.

Vesical and Rectal Fistulæ of very small size, too small for plastic operation, may be effectually treated by passing the nævus-needle carefully through them, and then establishing the current. The bladder and rectum should be as empty as possible, though care must be taken lest it pass in so far as to touch the healthy parts.

The Uterine Cavity may also be cauterised without difficulty, though, of course, very great care should be employed. Although I have not done it myself, I have heard that it has been done.

I have endeavoured in the foregoing remarks to avoid length; any one accustomed to operations on these parts will, I think, at once perceive the points of advantage afforded by the galvanic cautery. Some operations cannot be done by other means; some can be done more safely by this cautery; others equally well by other plans. I consider that it forms a valuable addition to our *armamenta*.

ON CERTAIN COMPOUNDS OF ALBUMEN WITH THE ACIDS.*

By GEORGE STILLINGFLEET JOHNSON,
Daniell Scholar of King's College, London.

In testing albuminous liquids, much reliance is usually placed upon coagulation by nitric acid, which is added in excess, and in the concentrated form; if, however, the acid be very dilute, or added in small quantity, the precipitate which first falls is redissolved on shaking, and the acid liquid thus formed is not coagulated by heat, though the albumen is immediately precipitated by a few more drops of the strong nitric acid. This reaction has long been observed in testing albuminous urine. It was with a view to its explanation that the following experiments were conducted. The whites of four eggs were placed in a hoop dialyser of parchment-paper, which was floated upon the surface of some dilute nitric acid (sp. gr. 1.0025). After twenty-four hours, the albumen on the dialyser had become a clear semitransparent jelly, soluble in boiling water, yielding a strongly acid solution, in which nitric acid could be detected by the formation of a brown ring on the addition of protosulphate of iron and strong sulphuric acid. The solution of this jelly was not precipitated by corrosive sublimate, silver nitrate, lead subacetate, or alcohol.

When the acid was neutralised by an alkali, the albumen was precipitated. Excess of alkali redissolved the precipitated albumen in the cold, but not if the solution were previously heated above the coagulating point of albumen.

Excess of nitric acid, sulphuric or hydrochloric acids immediately coagulated the solution of albumen nitrate. Dried *in vacuo* over sulphuric acid, the compound became a hard, brittle, transparent mass, resembling gum; and in this form it was hygroscopic, but not deliquescent.

To determine the amount of acid in the compound, the dry nitrate (having ceased to lose weight *in vacuo*) was weighed and dissolved in boiling water. To the acid liquid thus obtained, and coloured by a solution of litmus, a solution of soda of known strength was added from a burette until the acid was exactly neutralised, the point of neutralisation being determined by the restoration of its blue colour to the litmus. The acid was then determined by calculation.

Analyses of two samples of the compound, prepared by dialysis over acids of specific gravities 1.002 and 1.001, yielded concordant results, which showed the presence of 6.7 per cent. by weight of nitric acid in the dry nitrate.

Hence it appears that there is a distinct compound of nitric acid with albumen: and it is the formation of this compound which explains the absence of any precipitate on heating albuminous urine to which a small quantity of nitric acid has been added. Similar compounds were obtained by dialysing white of egg over the other mineral, and some of the best known vegetable, acids. Each acid, however, imparts some characteristic reaction to the albumen by which its compound may be distinguished from all the others; and the proportions of acids in the different compounds vary according to their several combining weights.

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* Abstract of a paper read before the Chemical Society.

REPORT
OF THE
COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

VI.—Antagonism between Tea, Coffee, Cocaine, Theine, Caffein, Guaranine, on the one Hand, and Morphia on the other. *(Continued.)*

I. *The Physiological Properties of the Active Principles Cocaine, Theine, Caffeine, and Guaranine. (Continued.)*

The physiological effects of theine, caffeine, and guaranine seem identical with those of cocaine. The actions of all will be understood from the following selected experiments with theine.

Experiment 410. *One-Sixteenth of a Grain of Theine: Frog: Recovery.*—The one-sixteenth of a grain of theine, dissolved in twenty minims of water, was injected under the skin over the back of a healthy middle-sized frog. Almost immediately afterwards, the respirations, which normally had been about 80, were increased to 120 per minute. Seven minutes afterwards, the respirations had diminished to 80 per minute. The frog was now distinctly sluggish in its movements; it made attempts to leap, but did so feebly. When placed on its back, it recovered its normal position with difficulty. When its toe was pinched with a pair of forceps, it drew up its leg. If its limbs were pulled out, they were drawn up slowly. Two minutes afterwards, these symptoms were increased; and in three minutes more the limbs were very weak, and the animal lay on its belly without their support. When placed on its back, the frog was unable to recover its position, but lay there with its limbs drawn up; and, when the skin or toes were pinched, the limbs were moved, but sluggishly. The respirations had diminished to 40 per minute. Five minutes later, the frog still lay motionless on its back, with its limbs extended. All four legs were completely paralysed, and they remained in whatever position they were placed. When any portion of the skin was pinched, the animal made no movements. On touching the eyeballs, the eyelids did not close. The respirations had diminished to 26 per minute; and they were very irregular, some being deep, and others superficial. There was marked congestion of the under cutaneous surface, which was of a reddish purple colour. The mucous membrane of the mouth and tongue was also deeply congested. When the web of the foot was examined under the microscope (twenty-five diameters), the capillaries and small blood-vessels were found enlarged and engorged with blood, and there was in them complete stasis of the circulation. The heart was beating, but respiration had stopped. The frog remained in this prostrate condition for eleven minutes, when slight spasmodic movements were observed in the limbs. Four minutes later, it made feeble attempts to move its legs; and, when its toe was pinched, it drew them up. Four minutes afterwards, the animal gave a very feeble leap, and tried to crawl along the table. It sat on all-fours; and, when any portion of its skin was pinched, it made attempts to move. The respirations, although still irregular, had risen to 20 per minute. Eighteen minutes afterwards, the frog jumped readily, especially if it were irritated. It croaked vigorously when touched; and in half an hour it was apparently in its natural state, with the exception of looking feeble. Next morning, it was found in its normal condition.

In this experiment, we find that, shortly after the administration of the theine, the frog gradually lost motor power and all evidences of reflex action, the animal being reduced to a state of complete prostration. The number of the respirations was first increased, and subsequently diminished; congestion of the cutaneous and mucous surfaces was produced, with enlargement of the small vessels, and engorgement of blood in the capillaries, with stasis of blood in their interior. From all these effects the frog recovered gradually, after remaining under the influence of the drug for more than an hour.

It was now to be determined what portion of the nervous system is affected by theine, to account for the loss of motor power and reflex action.

Experiment 413. *One-twelfth of a Grain of Theine: Frog: Death: Post Mortem Examination.*—One-twelfth of a grain of theine, dissolved in thirty minims of water, was injected under the skin over the back of a healthy middle-sized frog. A series of symptoms ensued almost exactly similar to those in the preceding experiment, only somewhat more rapidly, and ultimately causing the death of the animal. On *post mortem* examination, the limbs and body generally were flaccid. The skin, especially on its under surface, was congested, of a reddish purple colour. On pinching with a pair of forceps any portion of the integument, no contraction of the muscles followed; but, on the application of the electrodes of a faradic current, there were strong muscular contractions. A flap of the skin about an inch square was reflected from the back; and, when the electrodes were applied to the extremity of it, there were no movements; but when they were applied to the skin near the muscles, these contracted feebly. When one of the limbs was removed from the rest of the body, and a reflected portion of the skin was treated in a similar manner, the same phenomena ensued. The head was amputated; and, on thrusting the point of a needle into the brain, the muscles of the face and eye contracted. The exposed part of the spinal cord was also irritated with the electrodes of a weak faradic current, and strong muscular contractions of the body and limbs ensued. The cervical portion of the spinal cord, about a quarter of an inch in length, was then isolated by carefully removing with a pair of scissors the bodies of the vertebræ. On applying the electrodes of the weak current to the anterior columns of the cord, there were powerful contractions of the lower limbs. On irritating the posterior columns in a similar manner, these contractions were very feeble. On dissecting out the sciatic nerves, and pinching them with a pair of forceps, or applying the electrodes to the lower portions of them, strong contractions of the posterior limbs ensued; when to the upper portion, there were powerful contractions of the upper part of the body. On applying the electrodes to the gastrocnemii and other muscles, they contracted strongly. On opening the cavities of the thorax and abdomen, the heart was found beating feebly, at the rate of 64 per minute. All the internal viscera, especially the liver and bowels, with the mesentery, were deeply congested, and their vessels engorged with blood.

We find in this experiment not only enlargement of the small blood-vessels and capillaries, with engorgement and stasis of blood, during life, as proved by inspection of the web of the foot under the microscope, but that, after death from a fatal dose of theine, there was a similar condition of the skin and internal viscera, showing that the drug paralyses the capillary system, probably by its action on the vaso-motor nerves. This effect was subsequently proved by experiments on mammals. It is also shown that the motor filaments of the brain and upper part of the spinal cord, the anterior columns of the cord, the motor nerves, and the muscles, were apparently in a normal condition; but that the posterior columns of the cord were partially paralysed. To ascertain if the peripheral sensory nerves of the skin were also affected, a large flap of the integument was reflected. On applying the electrodes of a faradic current to its extremity, no muscular contractions ensued, proving that the sensory nerves of that portion had been paralysed. If the electrodes were placed on the reflected skin close to the muscles, these contracted feebly; probably owing to direct action of the electricity on the motor nerves of the muscles, as they were proved not to be reflex by the same phenomena occurring when a limb was removed from the body. Whether the sensory nerves of the muscles also are affected or not, will be shown in the succeeding experiment.

Experiment 415. *One-tenth of a Grain of Theine: Mouse: Death: Post Mortem Examination.*—One-tenth of a grain of theine, dissolved in ten minims of water, was injected under the skin over the back of a white mouse weighing three drachms. For fifteen minutes, no effects were observed. When its tail was pinched, it uttered a cry, which it did before the drug was administered. At the end of this time, it became sluggish in its movements, being weakened in all four limbs, but especially in the posterior ones. It could only crawl along the table, but could not run. Five minutes later, when placed on its back, the animal lay there with its limbs occasionally kicking; and it turned over on its belly with great difficulty. On pinching its tail, it did not cry, but struggled, and attempted to get out of the way. Five minutes afterwards, the mouse lay helpless on its side. The under surface of the body, the feet, legs, and mouth, were much congested and very red; the ears not markedly so. When the foot was pinched, the animal pulled away its leg. Five minutes later, when placed on its back, it lay there with limbs occasionally moving, and scratching itself with its toes. When its tail or skin was pinched, the animal made very slight efforts to move. When its toe was pinched, it drew its leg out of the way; it did not seem to feel a pinch of the ear. When the eyeball was touched, the eye did not close. When its face was touched, the muscles did not move. Congestion of the skin was still considerable. Twenty minutes afterwards, the animal had gradually become prostrate. When any portion of the body was pinched except the toe, there were no signs given of sensation. When the toe was pinched, there were slight muscular contractions of the limb. Congestion of the cutaneous surface had nearly disappeared, and the animal lay helpless and immovable. Respiration had stopped, and ten minutes later the mouse was dead. Immediately after death, an examination of the body was made. The heart was still beating feebly. The integument, the thoracic and abdominal viscera, were all deeply congested, and their blood-vessels engorged with blood. On amputating the head and irritating the upper portion of the spinal cord with the point of a needle, there were feeble contractions of the muscles generally, which were much increased on applying to the same place the electrodes of a weak faradic current. On thrusting the needle into the brain, the muscles of the face contracted powerfully. About a quarter of an inch of the cord was carefully dissected out by removing with a pair of scissors the bodies of the vertebræ. On applying the electrodes very gently to the posterior columns, there were slight contractions of the muscles of the lower limbs. On touching the anterior columns, there were strong contractions. On exposing the sciatic nerves, and pinching or applying the electrodes to them, the limbs were powerfully contracted. On irritating the muscles, they contracted strongly under electrical stimulus. The membranes of the brain were found much congested, but its substance appeared healthy. The spinal cord was not congested, and seemed in its normal condition.

In this experiment, it is seen that the effects of theine on a mammal are similar to those produced on a frog. The mouse lost its motor power. When irritated or pinched, it seemed to have lost its sensibility. Respiration was stopped, and complete prostration and death ensued. There was great congestion of the skin and internal organs, pointing to the influence the drug has on the vaso-motor system. There was congestion of the membranes of the brain, which explains the cerebral excitement which is occasionally, although not in this instance, met with after the administration of theine. As in the preceding experiment, the motor filaments of the brain, cord, nerves, and muscles, were intact; while the sensory filaments of at least the spinal cord were paralysed. The slight movements produced by irritating the posterior columns were probably due to transmitted electricity, owing to the small size of the cord of a mouse. This was afterwards proved to be the case by experiments on larger animals. All these facts prove that the loss of motor power of the animal during life was not due to paralysis, either of the motor columns of the spinal cord, the motor nerves, or the muscles. They show, however, that there is at least paralysis of the sensory columns of the cord; and whether the peripheral sensory nerves are affected or not, will be shown in a following experiment. Death probably resulted from paralysis of the nerves connected with the respiratory processes. In this experiment, the mouse died quietly, without convulsions; but in many instances the animal has tetanic spasms and opisthotonos immediately preceding death, having symptoms somewhat allied to those produced by strychnia. Theine differs from strychnia in this respect: in the latter, there is increased reflex action of the cord, so that the slightest touch induces a tetanic spasm; in the former, there is no such excitability, as, the posterior columns being paralysed, and the animal not feeling any irritation, no spasm is induced, but convulsions occur without a stimulant.

Experiment 412. *One-twelfth of a Grain of Theine: Frog: Ligature of Femoral Artery: Death: Post Mortem Examination.*—The left femoral artery of a healthy middle-sized frog was tied, and one-twelfth of a grain of theine, dissolved in thirty-five minims of water, was injected under the skin over the back. In ten minutes, the animal was almost prostrate. It lay on its back, but was still able to contract its limbs when they were pinched, which both did with equal strength, the left leg, perhaps, being somewhat more sluggish than the right. Fifteen minutes later, the frog was apparently dead. The head was amputated. On irritating the upper portion of the cord with the electrodes of a weak faradic current, the two limbs contracted powerfully, and apparently with equal strength. When the sciatic nerves were dissected out and irritated or pinched, similar muscular contractions took place in both legs. The other symptoms and *post mortem* phenomena were similar to those described in Experiment 413.

This experiment supports former observations in proving that the peripheral motor nerves are unaffected by theine. In tying the artery of the limb, the poisoned blood is prevented from circulating through it; consequently, while the rest of the body is affected, it remains in comparatively a healthy condition. After the introduction of the drug, the animal gradually became prostrate; but at no stage of the symptoms was there any special or marked difference between the two legs. (It may be mentioned, that cutting off the supply of blood to the limb produced slight weakness of that leg.) On irritating the spinal cord or the sciatic nerves, no difference was observed in the contractile powers of either of the posterior extremities. This proves that the peripheral motor nerves are not paralysed; otherwise the leg which had been poisoned would, on irritation, have been more sluggish in its movements than the limb from which the theine had been excluded by the ligature of the artery. In reality, the latter leg was the feebler of the two. This experiment shows nothing with regard to the sensory peripheral nerves, as, the posterior columns of the cord being affected, reflex action is destroyed.

Experiment 385. *One-twelfth of a Grain of Cocaine or Theine: Frog: Ligature of the Heart.*—The heart of a healthy middle-sized frog was exposed by carefully dividing the sternum with a pair of scissors, and a ligature passed round its base, and tied so as to interrupt the circulation. The one-twelfth of a grain of theine, dissolved in ten minims of water, was then injected under the skin of the calf of the right leg. In four minutes, both of the posterior extremities were partially paralysed. On pinching the skin over the right calf with a pair of forceps, no muscular contractions of any kind followed. On pinching the skin over the left calf, there were contractions of all the muscles of the body, including the right leg. On pinching any other portion of the skin, except the right leg below the knee, the animal struggled. A one-twelfth of a grain of theine, in ten minims of water, was then injected under the skin of the calf of the left leg. Three minutes afterwards, when the toe of this limb was pinched, the muscles did not contract; but, on pinching either of the anterior extremities, all four legs contracted.

In the former experiments, it has been pointed out that theine paralyses the posterior or sensory columns of the cord, but that it does not affect the motor filaments of the brain or cord, the motor nerves, or the muscles. The object of this experiment was to determine the local effect of theine upon the peripheral sensory nerves. The heart was tied so as to prevent any circulation of blood in the body. The operation produced partial paralysis of the limbs, probably owing to the want of proper blood-supply. When the drug was injected into the calf of the right leg, subsequent irritation of the foot did not induce muscular contraction of that limb; but, on irritating the toe of the left leg, there were distinct contractions of all the limbs, including the poisoned one, showing that reflex action was unimpaired, and that the motor nerves of the poisoned leg were unaffected.

This supports the preceding experiment in proving that the nerves of the motor system are not paralysed by theine, otherwise a pinch of the left leg (unpoisoned) would not have produced contraction of the right (poisoned). It also proves that the peripheral sensory nerves are paralysed, as, in this instance, the cord not being under the influence of the drug, the loss of motion of the right leg was due to the local effect on the sensory nerves. This was further shown by injecting theine into the left or hitherto unpoisoned limb. A few minutes afterwards, when it was pinched, the previous muscular contractions were found to have disappeared. The sensory peripheral nerves had been paralysed. When either of the anterior extremities were pinched, the muscles of the entire body, including both poisoned legs, contracted, showing that, although the sensory nerves of both limbs were paralysed, the motor nerves were intact. Thus theine paralyses the posterior columns of the cord and the peripheral sensory nerves, but it does not affect the anterior columns or motor nerves.

Experiment 427. *Six Grains of Theine: Rabbit: Death: Post Mortem Examination.*—Six grains of theine, dissolved in two drachms of water, were injected under the skin over the back of a healthy white rabbit weighing 2 lbs. 3 oz. Almost immediately afterwards, the ears were observed to become paler than before; then suddenly they appeared of a bright red colour, all the vessels being enlarged and congested. After remaining in this condition for half a minute, they again became pale and anæmic. These sudden changes from extreme pallor to intense congestion alternated for about five minutes, each stage being about a quarter of a minute in length, after which time the ears became permanently red, hot, and congested. The animal then became restless and somewhat excited, but not hyperæsthetic; and it trembled slightly. When its toe or ear was pinched, it struggled. The force of the heart's pulsation was stronger; and the rapidity of the beats, as well as the respiratory acts, quicker than before. The pupils were unaffected. Three minutes later, the hind legs straggled slightly, and they seemed to have lost power. Two minutes afterwards, all four extremities were considerably weaker, and the rabbit was unable to stand upright, but lay flat on its belly, with all its limbs stretched out on the table. When its toe was pinched, it did not struggle so much as formerly; still it pulled away its leg, and attempted to crawl along, which it did in a shaky and laboured manner. The breathing was laboured and slow, the heart's pulsations were feeble, and the animal trembled. The ears were still intensely hot to the touch, and congested. Eight minutes later, the animal could not make the slightest effort to stand, or move its body by means of its legs. All excitement had disappeared, and it lay quiet on its side. On pinching its toe very hard, it did not give any evidence of feeling pain, and did not move. The ears were still congested and hot, and the pupils were somewhat contracted.

For twenty minutes the animal lay in this prostrate condition, breathing in a laboured manner, when it suddenly took a tetanic spasm, with slight opisthotonos, which lasted for about a quarter of a minute. The congestion of the ears had now almost entirely disappeared. For the next seven minutes, the animal took tetanic spasms at intervals, occurring spontaneously, and not brought on by pinching or other external irritations. Evidence of sensibility had disappeared from all parts of the body except the head, where it seemed to be normal. The eyelids winked when the eyeballs were touched, and even when the hands were clapped before them. When any portion of the face was touched, its muscles contracted. The animal, although completely paralysed in its limbs, looked intelligent, as if sensation was unaffected. Ten minutes later the pupils were considerably contracted, the breathing slow and irregular, and the heart-beats not palpable. It died after a tetanic spasm.

Table L.—*Experiments with Theine.*

No. of Experiment.	Animal.	Dose in grains.	General Effects.	Result.	*Post Mortem* Examination.
407	Frog	1-120th	Slight weakness of posterior extremities.	Recovery	
408	Frog	1-64th	Weakness of posterior extremities.	Recovery	
409	Frog	1-32nd	Paralysis of limbs; loss of reflex action; respiration impeded.	Recovery	
410	Frog	1-16th	Complete paralysis of limbs; loss of reflex action; respiration impeded; cutaneous congestion.	Recovery	
411	Frog	1-12th	Gradual prostration; paralysis of all the muscles; loss of reflex action; respiration stopped; congestion of cutaneous surface & mucous membrane of mouth and tongue.	Recovery	
412	Frog	1-12th	Femoral artery tied; same effect as No. 411; no difference between two legs.	Death	
413	Frog	1-12th	Complete prostration; loss of reflex action; stoppage of respiration; cutaneous congestion; stasis of blood in capillaries.	Death	Heart still beat; congestion of viscera; muscles contracted when electricity was applied; when spinal cord, nerves, or brain irritated, muscr. contractions occurred.
414	Frog	1-10th	Complete prostration; loss of reflex action; stoppage of respiration; congestion of cutaneous surface.	Recovery	
415	Mouse	1-10th	The same as No. 414.	Death	Same as No. 413. Spinal cord exposed; anterior column irritated, contraction of muscles ensued; posterior column irritated; no contractions.
416	Frog	1-8th	Same as No. 414, but more rapid.	Death	Same as No. 413.
417	Frog	1-8th	Femoral artery tied; symptoms same as No. 414, but tetanic spasms in addition; no difference between two legs.	Death	Same as No. 413. No difference between two legs when electricity was applied.
418	Frog	1-4th	Rapid prostration, with tetanic symptoms.	Death	Same as No. 413.
419	Frog	1-3rd	Upper part of spinal cord exposed during life; rapid prostration; after death, on touching anterior columns of cord, contraction of all the muscles; on touching poster. columns, no contractions; before death, muscular contractions followed irritation of the posterior columns.	Death	Same as No. 413.
420	Frog	1-3rd	Lower portion of cord exposed during life; same as No. 419.	Death	Same as No. 413.
421	Frog	½	Very rapid prostration and loss of reflex action, with usual effects.	Death	Same as No. 413.
422	Frog	1	Almost instantaneous prostration.	Death	Same as No. 413.
423	Rabbit	1+1	No effects from first grain; slight weakness of posterior extremities from second grain.	Recovery	
424	Rabbit	1	Femoral artery tied; contraction of pupil very slight; no other effect; leg of animal was paralysed by operation.	Recovery	
425	Rabbit	2+2 +2+2	From first and second dose, no effects. From third dose, ears hot and congested; no other effect. From fourth dose, animal paralysed and prostrate; tetanic spasms; contraction of pupil.	Death	Membranes of brain congested; substance of brain and spinal cord healthy; internal viscera congested; muscles contracted when electrodes of Faradic current were applied; when applied to nerves or spinal cord, muscular contractions ensued.
426	Cat	4+4	From first dose, great irritation and cerebral excitement; depression afterwards. After second dose, excessive salivation; partial paralysis of posterior limbs; tetanic spasms; tongue and mouth congested; mucous discharge from bowel.	Death	Nerves found sensitive to pinching. The same as No. 425.
427	Rabbit	6	Observations on respiration—number, 1st increased, and 2nd diminished. Complete paralysis of all four limbs; laboured breathing; loss of reflex action; congestion and heat of ears; pupils contracted; tetanic convulsions.	Death	Same as No. 425.
428	Rabbit	6	Observations on heart's pulsation—number, 1st increased, and 2nd diminished; otherwise same as No. 427.	Death	Same as No. 425.
429	Cat	6	Irritable at first; staggering gait; excessive salivation; discharge of mucous from bowel; subsequent depression.	Recovery	
430	Cat	6+3	From first dose, irritation and cerebral excitement; embarrassed respiration; subsequent depression; profuse salivation; staggering gait; animal stupid and drowsy. From second dose, mucous discharge from bowel; mouth and tongue congested; vomiting.	Death	Same as No. 425.
431	Rabbit	8	Ears congested; staggering gait; pupils contracted; laboured breathing.	Recovery	
432	Rabbit	8	Ears congested; pupils contracted; paralysis of legs; reflex action lost except in head; tetanic spasms; opisthotonos.	Death	Same as No. 425.
433	Rabbit	12	Spinal cord exposed during life; posterior column touched, animal cried and struggled. After injection of theine, complete prostration & loss of reflex action; on touching posterior column it did not move away or cry; on touching anterior column, muscles were contracted.	Death	Same as No. 425.

An examination of the body was made as soon after death as possible. On applying the electrodes of a weak Faradic current to the exposed spinal cord, the muscles of the lower limbs contracted. On removing with a pair of scissors the bodies of the vertebræ, and isolating about half an inch of the cord, in the dorsal region it was observed that, although muscular contractions followed irritation of both the anterior and posterior columns, these were much more marked in the case of the former. On thrusting a needle into the brain, the muscles of the face and eye contracted. The sciatic nerves and muscles were found apparently in normal condition. The membranes of the brain were much congested, but its substance appeared healthy, as was also the spinal cord. All the internal viscera were deeply congested, their vessels being engorged with blood.

In this experiment, the loss of motor power and other symptoms, already described in the mouse, ensued. The early stage was indicated by cerebral excitement, irritation, and restlessness of the animal, which subsequently disappeared, and was followed by depression and insensibility to irritation. It is to be observed, however, that the animal never seemed to lose its intelligence. It was watchful, followed every motion of the experimentor, although it was unable to make any movement. From the effects observed in the blood-vessels of the ear, it is evident that theine affects the vaso-motor nerves, first by irritating and afterwards by paralysing them, as evidenced by the change in the action of the heart and the frequency of its beats, also in the tonicity of the smaller vessels by first contracting and lastly by relaxing them. This same action also explains the increase and subsequent diminution of the respirations which ultimately caused the death of the animal.

Experiment 430. *Six Grains of Theine: Cat: Death: Post Mortem Examination.*—Six grains of theine, dissolved in a drachm and a half of water, were injected under the skin over the back of a healthy cat, weighing 4 lbs. 1 oz. In ten minutes, the animal became very angry and irritable. Fifteen minutes later, this excitement had increased, the animal had a watchful anxious appearance, prowled about, and when touched with a stick, bit at it and growled. If any noise or motion were made, it arched the back and made a hissing noise. The legs appeared weakened, and although it still could walk about, it preferred sitting in a corner of the room. Its mouth and tongue were very red, and there was an abundant secretion of saliva, which constantly trickled out of its mouth. The cat defæcated and micturated several times. Forty minutes later, it continued in much the same condition. Salivation was profuse. Animal suffered from tenesmus, and it had a constant straining from the bowel of a clear fluid, like mucus. The limbs, especially the posterior ones, were much weakened, but the animal could still run with difficulty. It could not jump; it made attempts to do so over a bench about two feet high, but failed. The breathing was laboured and irregular. The redness of the tongue and mouth, as well as the excessive irritability of the animal had disappeared. It was quiet, lay in a corner, stupid and drowsy. It drank freely of water. Twenty minutes later, it was prostrate and lay on its side, its limbs quite helpless. It paid no attention to a pinch of the toe or a blow on the tail with a stick. It seemed, however, to be intelligent, as its eyes watched every movement of the observer, and when the hands were clapped before its face it growled. The salivation and discharge from the bowel were excessive. Pupils were contracted, and the breathing was laboured. Five minutes later, the cat took a series of tetanic spasms, and shortly afterwards died.

Table LI.—*Experiments with Caffeine.*

No. of Experiment.	Animal.	Dose in grains.	General Effects.	Result.	*Post Mortem* Examination.
434	Frog	1-128th	Very slight weakness of posterior extremities.	Recovery	
435	Frog	1-64th	Slight weakness of posterior extremities.	Recovery	
436	Frog	1-32nd	Considerable weakness of limbs; respiration impaired; reflex action diminished.	Recovery	
437	Frog	1-16th	Almost complete paralysis; respiration stopped; almost complete loss of reflex action; prostration; cutaneous surface congested.	Recovery	
438	Frog	1-12th	Complete prostration; respiration stopped; reflex action lost; under surface of skin, tongue, & mouth, congested; stasis of blood in capillaries.	Death	Heart beat feebly; great congestion of viscera. When brain was irritated, muscles of face contracted; on irritating spinal cord, nerves or muscles, there were muscular contractions.
439	Frog	4-12th	Ligature of femoral artery; symptoms same as No. 438; no difference between the two limbs.	Death	Same as No. 438; no difference between the two legs
440	Frog	1-10th	Spinal cord exposed during life; symptoms the same as No. 438. On touching anterior or posterior columns with point of needle, strong muscular contractions followed. After caffeine was injected, no contractions followed on touching the posterior column, while anterior column remained as before.	Death	Same as No. 438.
441	Frog	1-8th	Prostration and loss of reflex action; congestion of skin; stoppage of respiration.	Death	Same as No. 438.
442	Frog	1-3rd	Rapid prostration and loss of reflex action, with usual symptoms.	Death	Same as No. 438.
443	Frog	1	Ligature of femoral artery; very rapid prostration & loss of reflex action; no difference between the two limbs.	Death	Same as No. 438. No difference between the two legs.
444	Rabbit	1+1+1+1	From first & second dose, no effects; from third dose, congestion of ears, cerebral excitement, contraction of pupil, staggering gait; from fourth dose, partial paralysis of limbs, reflex action diminished.	Recovery	
445	Rabbit	4	Numbers of the respirations & pulsations of the heart—1st increased, and 2nd diminished. Temperature of the ear—1st diminished, and 2nd increased. Ears at first anæmic, subsequently hyperæmic; breathing laboured; pupils contracted; paralysis of limbs; loss of reflex action; tetanic spasms; opisthotonos.	Death	Membranes of brain & internal viscera congested; substance of brain and spinal cord healthy; electrodes of current applied to cord, nerves, brain, or muscles, produced muscular contractions.
446	Cat	6	Irritation and cerebral excitement; mouth and tongue congested; staggering gait; tenesmus & mucous discharge from bowel; salivation excessive; subsequent depression.	Recovery	
447	Cat	8	Same as No. 446; in addition, prostration, loss of reflex action, and tetanic spasms.	Death	Heart beat feebly; the same as No. 445.
448	Cat	8	No marked effect for about half an hour. Death from sudden tetanic spasm.	Death	Same as No. 445.
449	Rabbit	12	Spinal cord exposed during life; posterior columns touched with point of needle, animal struggled and cried out; anterior columns touched, animal struggled. After injection of caffeine, when posterior columns were touched, animal did not cry out, but struggled slightly; when anterior columns were touched, strong muscular contractions ensued. Symptoms same as No. 445.	Death	Same as No. 445.

The *post mortem* examination and phenomena were similar to those in the preceding experiment.

In the cat, the general nervous symptoms are much the same as in the rabbit, with this exception, that the cerebral excitement and subsequent depression are much more marked. There was no evidence of hyperæsthesia, but rather a gradual loss of sensibility. In addition, there was excessive increase of the salivary secretion, and straining from the bowels of a profuse mucous discharge. The cat died after a severe tetanic spasm.

Experiment 433. *Twelve Grains of Theine: Rabbit: Spinal Cord exposed during Life.*—A healthy white rabbit, weighing 2 lbs. 2 oz., was carefully fastened down on its belly. An incision was made through the skin along the upper part of the spine, about two inches in length, and the vertebral column exposed. By means of bone-forceps and scissors, portions of the vertebræ were removed so as to expose a piece of the spinal cord about a quarter of an inch in length. On touching the posterior columns with the point of a blunt needle, the animal struggled violently and uttered loud cries. Twelve grains of theine, dissolved in two drachms of water, were then injected under the skin of the belly. In ten minutes, the symptoms already described in preceding experiments commenced—congestion of the ears, etc. On pinching the toe, the animal did not appear to feel it. On touching with the point of a blunt needle the posterior columns of the cord, the animal struggled, but not nearly so violently as before, and it did not cry out. When the anterior columns were touched, there were violent convulsions of the body. Five minutes later, the animal was completely paralysed in all its limbs, and presented all the usual symptoms of prostration. A fresh portion of the cord was exposed by cutting away some of the vertebræ below the original wound. On touching, as before, the posterior columns, the rabbit only quivered slightly. On touching the anterior columns, marked muscular contractions of the limbs followed. The animal was shortly afterwards killed, and similar phenomena were observed after death as have been already described.

The object of this experiment was to confirm, during life, what had already been concluded from *post mortem* examinations, viz., that theine paralyses the posterior columns of the spinal cord, while the anterior columns remain apparently unaffected.

From these experiments, and those in the Tables L, LI, and LII, the general conclusion may be drawn, that, as cocaine, theine, caffeine, and guaranine chemically resemble one another, so do their physiological actions seem precisely similar.

Numerous observations made on larger animals (cats and rabbits) with the three last substances demonstrated the following facts, in addition to those already determined with cocaine.

1. These three alkaloids—theine, caffeine, and guaranine—produce an increase of the salivary secretion.
2. They produce a peculiar form of tenesmus, accompanied by a copious discharge of clear mucus from the bowels.
3. They usually produce contraction of the pupil.
4. They affect the temperature by (1) slightly lowering and (2) increasing it.

Although we have not been able to demonstrate that these four properties also belong to cocaine, we have every reason to believe, judging from their other analogies, that if similar doses of it were given the same results would ensue.

[*To be continued.*]

TABLE LII.—*Experiments with Guaranine.*

No. of Experiment.	Animal.	Dose in grains.	General Effects.	Result.	*Post Mortem* Examination.
450	Frog	1-128th	No apparent effects.	Recovery	
451	Frog	1-64th	Animal sickly; slight weakness of poster. extremities	Recovery	
452	Frog	1-32nd	Weakness of limbs.	Recovery	
453	Frog	1-16th	Partial paralysis of limbs; reflex action impaired; respiration impeded; congestion of cutaneous surface.	Recovery	
454	Frog	1-12th	Prostration; almost entire loss of reflex action; respiration stopped; congestion of cutaneous surf.	Recovery	
455	Frog	1-8th	Complete prostration & loss of reflex action; respiration stopped; cutaneous congestion also of mucous membrane of tongue and mouth; stasis of blood in capillaries.	Death	Heart beat feebly; congestion of skin and internal viscera. On irritating brain, spinal cord, nerves or muscles, there were muscular contractions; anterior columns of cord irritated, strong contractions of limbs; posterior columns irritated, no contractions.
456	Frog	1-4th	Rapid prostration & loss of reflex action; otherwise the same as No. 455.	Death	Same as No. 455.
457	Rabbit	4	Number of the respirations & pulsations of the heart—1st increased, and 2nd diminished. Temperature of the ear—1st dimin. and 2nd increased. Ears—1st anæmic, and 2nd hyperæmic. 1st cerebral excitement, & 2nd depression; paralysis of limbs; subsequently apparent recovery, but afterwards died in sudden tetanic convulsion.	Death	Membranes of brain and internal viscera congested. Substance of brain and spinal cord healthy. Electricity applied to brain, cord, nerves or muscles, produced muscular contractions.
458	Rabbit	4+2	From 1st dose, ears congested, and cerebral excitement. From second dose, complete paralysis of limbs; loss of reflex action; contraction of pupil; tetanic spasms, with opisthotonos.	Death	Same as No. 457.
459	Cat	6	Irritability & cerebral excitement; subsequent depression; partial paralysis of limbs; respiration impeded; tongue and mouth congested; tenesmus & discharge of mucus from bowel.	Recovery	
460	Cat	6	Same as No. 459; in addition, tetanic spasms and opisthotonos.	Death	Same as No. 457.
461	Rabbit	8	Exposure of spinal cord during life. On touching posterior columns with point of needle, animal struggled and cried out; on touching anterior columns, animal struggled. Guaranine produced effects as in No. 457. On touching posterior columns, animal did not struggle or cry out; on touching anterior columns, muscular contractions of limbs ensued.	Death	Same as No. 457.

ON PLEURITIC EFFUSION.

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[*Continued from p. 643 of last number.*]

THE earliest pathological changes which take place in the pleural membrane are not in the epithelial covering, but in the minute vessels which permeate the subpleural cellular tissue. Slight ecchymoses are then detected over the hypervascular patches; and these generally make their first appearance over the costal lining. Such ecchymoses are of a pale red hue, as if from imbibition; and, in the course of time, these spread and seem more uniform. The hyperæmia thus caused may be seen by the naked eye; and the microscope reveals the capillaries as being gorged and dilated. With the process of such pathogenic alterations, the clear serous membrane loses its polish, looks clouded and tumid; and, according to Rindfleisch, the epithelium has then been detached, and the emigration of colourless blood-corpuscles has already begun. Proliferated epithelial cells and exuded blood-cells constitute the cellular element of the fluid. Various amounts of a reddish yellow elastic substance lie loosely on the serous surface, constituting the rudiments of adventitious formations; and in the free fluid exuded are suspended depositions of fibrinous lymph in the form of ragged flakes; and, if we take some of the matter and examine it under a high power, we find large masses of cells and nuclei, together with a lax web of slender fibres, which prove, on chemical examination, to consist of a coagulated albuminous substance (Rindfleisch and Münck). The relative proportions of serosity and fibrinous matter are very varied; and the etiological conditions determining such proportions are manifold, such as those which may be regarded as diathetic, dyscrasial, the sthenic or asthenic types, the duration of the disease, the age of the patient, and like causes. When the fibrinous element predominates, and the inflammatory phenomena are localised, the plastic materials soon become organised, and adhesion results. In some cases, the gelatinous substance effused is so susceptible of organisation, that blood-vessels form in it with surprising rapidity; and, according to Andral, even less than twenty-four hours will suffice for arborescent reddish lines to become developed. In chronic pneumonia and in phthisis, these limited and plastic effusions are most common. According to Hasse, much depends upon the condition of the adventitious membrane which is thrown out upon the pleural surfaces, as regards the degree of absorption which the system is able to effect. Again: this effusion may not be so germane to the organism as to favour the assimilation of the formative constituents; and ingredients engendered by an altered vitalism, some blood-changes, an abnormal blending of proportions, or premature consolidation, may oppose the absorbent functions. The adventitious membranes, and more especially in sthenic types of inflammation, are formed with much rapidity. I have seen them of yellowish-white, and somewhat resembling the white of egg.

Their free surface is of villous character, and their degree of tenacity is much determined by the duration of the disease. When the plastic materials are very abundant, they are soft, opaque, and yellowish-looking, lie loosely agglutinated to the serous surfaces, and irregular shapeless masses gravitate to the lower parts of the cavity. On closer inspection, they generally consist of roughened flocculent layers, or are honeycombed or spongy. The liquid by which they are accompanied contains floating flocculi, long shreds, or is grumous, and contains varying amounts of the colouring matter of the blood, which gives it a mahogany or dirty reddish appearance. The best examples of the kind of effusion now particularly described are in primary, and eminently in traumatic, pleurisies, and when speedy and flagrant inflammation has set in. When such large amounts of formative substance are thrown out, and assimilation to the serous membrane cannot be effected, the tendency to organisation is very manifest; and thus substances which, if left, would acquire something of the inconvenience of foreign bodies, now take on those vital and accommodative properties which confer a tendency to the organism. From personal observation, I have been long convinced that large areas of the costal and pulmonary pleuræ may become adherent with little or no detriment to the general health, and that greater or less extents of binding down of the lung to the chest-wall are much more common than is generally supposed. Many years ago, when assistant-pathologist to the Royal Infirmary in Edinburgh, I was much surprised at the very frequent fact of pulmonary adhesion, and in persons who had never, on interrogation, referred to any severe chest-attacks. The respiratory function seems to accommodate itself to the lessened mobility of the lung and thoracic wall, and at length no real disturbance subsists. In pulmonary phthisis, when superficial vomicæ irritate the serous investment and give rise to a circumscribed fibrinous deposit, adhesion may be looked upon as of conservative tendency, and protective from worse events, precisely as in hepatic abscess and in chronic ulceration of the bowels, as I have in another place, when discussing the subject of peritonitis, more fully commented upon (see art. Peritonitis, in Reynolds's *System of Medicine*, vol. iii). The plastic exudate may be a wide-spread lamella investing the greater part or the whole of the pleura, and of varying thickness. It may be uniform where clothing the serous surface, interrupted or cribriform, and I have seen, where the membrane was thinnest, the pulmonary substance bulge through of bluish-red colour, in the form of bossy protrusions or mammillary appendages.

There is another pathological change which is of great significance in pleuritic effusion, but which has not been so prominently considered as the fact demands, and that is, the formation of coagula in the pulmonary artery. It is a morbid change which greatly tends to the carnification of the pulmonary substance, and also, by clots finding their way into the cardiac cavities, is sometimes followed by sudden death. M. Blache, in a case of sudden death after effusion, found a clot in the right ventricle of the heart, which, he believed, had been formed in the pulmonary artery of the affected lung. M. Marrotte has also regarded the formation of clots in the pulmonary artery as the cause of sudden death in pleuritic effusion. Renault also found clots in the right auricle, ventricle, and pulmonary artery (*Union Méd.*, xii, 291). According to MM. Vallin and Potain, and also Robinson, this complaint may give rise to embolism in the cerebral arteries, and be followed by paralysis and death. The blood-stasis in the pulmonary circulation caused by lymphic obstruction is doubtless one cause of that *albuminous expectoration after thoracentesis* respecting which French pathologists have latterly written and said much, and to which I shall hereafter more fully refer.

In those forms of pleurisy which have been variously named secondary, latent, asthenic, subacute, and consecutive, and in which also may be included those which at the outset exhibited the more primary types, but which passed into chronicity, a series of morbid phenomena are observed, which prove a lowered vitality in the effused products, and a lessened capability of organisation. The formative materials are given off in more diffused manner, and the sero-albuminous exudation is prone to assume the puriform state. The common accompaniments are an obvious cachexia, degradation of the circulatory fluids, and a general loss of resistance in the organism. In such cases, as Dr. Williams has well remarked, the solid matter is thrown out in a disintegrated state, insusceptible of organisation, and is diffused through the fluid in shreddy flakes and detached particles. Alterations in the fluid, by many circumstances, become varied, marked, and absolute. As I have already said, it may at the first be mere serosity, and, in a greater or less duration of time, pus-globules and the colouring matter of the blood may in different quantities be admixed. The outcome of a serous membrane, in thus having its products changed, resembles that which is noticed in cutaneous and mucous membranes, as in phlegmonous inflammation and bronchial catarrh. In such affections, mere serosity is the first outpour; then pus appears on the surface of the one and in the expectoration of the other. But, in some cases of pleurisy, the morbid secretion is doubtless purulent from the first, and most especially when this complaint is the accompaniment of exanthematic and adynamic types of fever, in erysipelas, and in blood-poisoning. I believe, in scarlet fever, pleuritic effusion is always purulent from the beginning. A suppurative condition may exist in the system, just as we know such to be the case in some puerperal women and in small-pox. This diathesis in puerperal cases is very generally fatal; and, in variola, any inflammatory sequela is pretty sure to be followed by the formation of pus. Scarlatinal arthritis, as it is well known, sometimes destroys the patient by purulent formations; and, when a low form of pleurisy comes on as the sequel of that disease, a fatal termination often results. Some writers have said that the effusion into the pleural sac, when preceded by inflammation, and not hydrothorax, is never wholly serous or wholly purulent. If such be not absolutely the fact, it is unquestionably true that pus and serum are generally found together, though in most varied proportions.

The pyogenic conditions which inspection reveals in the low and chronic forms of the disease now considered differ greatly, both as to the relative proportions of the liquid and solid materials, and as to their elementary characteristics. In some cases, there may be a great extent of false membranes, and thick shapeless agglutinating deposits, which, on close examination, are seen to be made up of lamellæ, or of the obvious deposits of recrudescence; and these are found in association with a turbid fluid that contains an abundance of floating flocculi, loose shreds which are manifestly inorganisable, and other aplastic products; and, in examples of long standing, the lung may be so compressed and bound down as to render its expansion most difficult or impossible. Again, it may be that the adventitious formations have at certain places become cartilaginous or ossific. Sometimes, as Trousseau observes, the lung becomes encased in a thick resisting false membrane; and then the last event which can occur is union with the costal pleura, and thus the obliteration of a cavity which had taken on a persistent secretory function. Relatively as the plastic masses become vascular, does the fluid diminish; and the converse also holds good; for, as Hasse observes, when the organisation is arrested and imperfect, and the vital energy of the product limited to coagulation, the fluid effusion is more abundant and longer withheld from absorption.

The secretion of pus in the pleura, or *empyema*, as it is more commonly termed, is rarely primary, except in extremely high inflammation (Rokitansky), as the result of injury, and as occurring in children (West). I have already observed that, in the exanthems and in adynamic types of fever, in pyæmic poisoning, and, it may be added, in chronic phthisis, it not unfrequently occurs. Walshe remarks that the secretion of pus from the outset indicates pulmonary tuberculisation. There is no doubt that the pleural membrane is most liable to secrete pus, and in most marked manner, when there is pneumothorax; and we know this to be the rule of morbid sequence when a tubercular abscess has at the surface burst and let in air, or when the air from any cause has been more immediately admitted through the thoracic wall. Sometimes pure liquid pus alone forms; but there is also most generally a resistless false membrane, which is loosely adherent to the serous surfaces. Sometimes stratified layers of plastic depositions are discovered in association with the purulent fluid; but in such cases the empyema has been of long standing. Whatever kind of products may be poured out into the cavity, when pus is once generated, they become stamped with the puriform characteristics (Hasse); and there is then doubtless also a tendency for organisable materials to resolve themselves into pus. Pus has been termed a fluid tissue; and the suppurative process is a continuation of the first inflammatory phenomena, caused by an excessive efflux of nutritive materials. Exuberant growth and reproduction are its distinguishing properties; it is the notable result in septicæmia; and, as before remarked, there is an etiological element in personal predisposition. Its typical condition is that of abscess; but its effusion into a serous sac is to be regarded histologically analogous. One of the most notable peculiarities of purulent secretion, either in the chest or abdomen, is the enormous quantity which in these serous sacs may be secreted. A short time is sufficient for even quarts to be thrown out. In some patients with empyema, we are surprised at the vast amounts which for weeks and months are daily given off. Trousseau cites the case of a small child which in two hundred days secreted forty quarts of pus. We know, however, how rapidly, and in what quantity, pus will be formed in a few square inches, in ulcerations of the cutaneous surface; and it can thus be better understood how such immense amounts can be produced when a serous surface extending to square feet assumes the secernent function. The system becomes much impaired by such a vast drainage; but it is marvellous how it accommodates itself to the outpour, and how long it can be kept up without the indication of a fatal declension of vital power. The best histological authorities say that vast numbers of leucocytes first migrate from distended blood-vessels into the connective tissue, and there become proliferated; and then their motive tendency is upwards and outwards. A membrane surcharged with liquor sanguinis, the consequence of vascular repletion, becomes the seat of multitudes of corpuscular elements; and, when the secretion escapes on the free surface, it is crowded with pus-corpuscles.

[*To be continued.*]

CLINICAL MEMORANDA.

IDIOPATHIC ANÆMIA.

In a late number of the *Deutsches Archiv für Klinische Medicin*, there is a paper by Dr. Immermann, in which he relates the history of two cases which, he says, confirm the discovery made by Dr. Biermer of a disease which he styles *progressive pernicious anæmia*. As foreigners are not so well acquainted with English literature as they should be, and these two physicians may gain the credit of introducing a new disease into our nosology, I beg leave to remind your readers that the disease is well known in England, and that fatal anæmia is alluded to by most authors. I heard a lecture upon it by Dr. Addison in 1843, and I myself published several fatal cases of the disease in the *Guy's Hospital Reports* for the year 1847-49. In Addison's well known treatise on the *Suprarenal Capsules*, he alludes to fatal anæmia in the following words.

"For a long period, I had from time to time met with a very remarkable form of general anæmia, occurring without any discoverable cause whatever—cases in which there had been no previous loss of blood, no exhausting diarrhœa, no sclerosis, no purpura, no renal, splenic, miasmatic, glandular, strumous, or malignant disease. Accordingly, in speaking of this form in clinical lecture, I, perhaps with little less propriety, applied to it the term 'idiopathic', to distinguish it from cases in which there existed more or less evidence of some of the usual causes or concomitants of the anæmic state. The disease presented in every instance the same general character, pursued a similar course, and, with scarcely a single exception, was followed after a variable period by the same fatal result. It occurs in both sexes, generally, but not exclusively, beyond the middle period of life, and, so far as I at present know, chiefly in persons of a somewhat large and bulky frame, and with a strongly marked tendency to the formation of fat. It makes its approach in so slow and insidious a manner, that the patient can hardly fix a date to his earliest feeling of that languor which is shortly to become so extreme. The countenance gets pale, the whites of the eyes become pearly; the general frame flabby rather than wasted; the pulse, perhaps, large, but remarkably soft and compressible, and occasionally with a slight jerk, especially under the slightest excitement; there is an increasing indisposition to exertion, with an uncomfortable feeling of faintness or breathlessness on attempting it; the heart is readily made to palpitate; the whole surface of the body presents a blanched, smooth, and waxy appearance; the lips, gums, and tongue seem bloodless, the flabbiness of the solids increases, the appetite fails, extreme languor and faintness supervene, breathlessness and palpitation being produced by the most trifling exertion or motion; some slight œdema is probably perceived about the ankles; the debility becomes extreme. The patient can no longer rise from his bed; the mind occasionally wanders; he falls into a prostrate and half-torpid state, and at length expires. Nevertheless, to the very last, and after a sickness of perhaps several months' duration, the bulkiness of the general frame and the obesity often present a most striking contrast to the failure and exhaustion observable in every other respect. On examining the bodies of such patients after death, I have failed to discover any organic lesion that could properly or reasonably be assigned as an adequate cause of such serious consequences, etc."

In my *Lectures on Pathological Anatomy*, published in 1859, is the following. "We occasionally meet with cases of fatal anæmia where no disease is found in the body; patients, after being in an almost bloodless condition for some months, die, and all the organs are found pale, and some of them in a commencing state of fatty degeneration; there is also generally some exudation of serum into the serous cavities, as well as œdema of the lungs and other parts. I have now seen several of these cases (see *Guy's Hospital Reports*, vol. iii): the blood resembles pink water, containing no coagula in the vessels or the heart, and the latter organ exhibits the form of fatty degeneration, where the internal surface, especially the left ventricle, presents the peculiar mottling from change in the muscular fibre." I express an opinion that nervous shock may have been the starting-point in the morbid process, and quote a case published many years ago by Sir H. Marsh, where a young lady accidentally poisoned her father, and who was so overwhelmed with grief, that she took to her bed, became anæmic, and died. In my cases, two of them, under the care of Drs. Babington and Hughes respectively, gave a distinct history of moral shock; and a young lad, who died in one of Sir W. Gull's beds with extreme anæmia, had never been well since he had been attacked by a sheep in a field. The German and Swiss doctors do not allude to this probable cause.

I have very little doubt that many readers of the Journal could give quotations of a similar kind from other English authors, and I am sure that most of them must be familiar with this form of disease. The most remarkable circumstance attending it is its supposed recent discovery by these two foreign physicians.

Samuel Wilks, M.D., F.R.S., Physician to Guy's Hospital.

IMPERFORATE HYMEN.

Mary H., aged 16, unmarried, a fustian-cutter, applied at the outpatient department of the Warrington Dispensary on September 4th, complaining of severe pain in the head, back, and thighs. The patient was tall and well nourished, but anæmic; pulse 80; tongue furred. She had slight nausea, and her bowels were inactive. She had enjoyed excellent health up to a few months ago, when the above symptoms commenced, increasing in severity till about two days before her application at the Dispensary, when she was compelled to leave off working. She had never menstruated. She was ordered eight minims of tincture of perchloride of iron and half an ounce of compound decoction of aloes, to be taken thrice daily; and to take a warm hip-bath.

On the evening of the following day, I was informed that the patient was much worse, and unable to leave her bed. I therefore visited her; and, as she was evidently in great suffering, and now complained of pain and swelling about the pudenda, I determined to make a vaginal examination. On separating the labia majora, the end of my forefinger at once came into contact with a tumour, tense and fluctuating, which completely obstructed the orifice of the vagina. The tension appeared to be increased by firm pressure above the pubes. I made a crucial incision into the tumour with a Syme's abscess-knife, when about thirty-five ounces of dark treacly-looking fluid, intermingled with clots, gushed out with great force. The vagina was well syringed with warm water containing a little Condy's fluid, and the patient made to lie on her back; a binder having been previously applied to the lower part of the abdomen. On the 6th, she had had a good night. Pulse 110. There was very little pain; the discharge was free. I ordered a mixture of liquor ammoniæ acetatis, tincture of henbane, and sulphate of magnesia, to be taken every four hours; and directed the patient's mother to syringe the vagina with warm water night and morning. On the 11th, the pulse was normal, and the discharge very slight. The patient now began to sit up. On the 15th, the discharge had completely disappeared, and the patient declared herself quite well. I gave ten minims of tincture of perchloride of iron with a grain of sulphate of quinine in water three times a day. On October 9th, the patient menstruated, and appeared to be very much improved in her general health.

G. W. Joseph, L.K.Q.C.P.I., House-Surgeon to the Warrington Dispensary.

THERAPEUTIC MEMORANDA.

THE PREPARATIONS OF PHOSPHORUS.

Numerous inquiries have been made of me as to the sources whence the various preparations of phosphorus mentioned in the paper published on November 7th may be obtained. Pills of reduced, or pulverised, phosphorus have been made for me by Messrs. Cox and Co. of Brighton. This firm also manufactures pills of zinc-phosphide; they may be employed for most of those uses to which free phosphorus may be put. Messrs. Kirby and Co. of London offer pills made with a solution of phosphorus. The ethereal solution may be easily made by digesting the metalloid with ether in the desired proportions; solution is not effected until about a month has passed over. The alcoholic solution is best made by oneself in the proportion of a grain to the ounce. The materials should fill the bottle employed, and be repeatedly heated in a water-bath, and shaken, during twenty-four hours. The cod-liver oil solution is made by Messrs. Young and Postans of Baker Street; and it has already been favourably noticed in the Journal. The same firm has made, at my request, capsules containing phosphorised cod-liver oil. Each of them contains 1-33rd of a grain in a few minims of oil. I prefer these to the "perles", which involve the use of a too concentrated solution—the cause of avoidable eructation. These capsules are the preparation best adapted for general use from every point of view; and I cannot speak too highly, either of the excellent manner in which I know them to be made, or of their effects on suitable subjects. Information upon other points, on which some of the Associates have been good enough to seek my advice, can scarcely be conveyed in a short space; I must, therefore, be permitted to refer those gentlemen to my work on the subject recently published (H. K. Lewis, Gower Street). J. ASHBURTON THOMPSON, Islington.

GALVANISM IN RETENTION OF URINE.

A BRIEF account of the following case may perhaps be interesting, as illustrating the use of galvanism in some cases of obstinate retention of urine.

Mrs. W., aged 40, had been suffering for some time from symptoms of internal piles, intense pain in the rectum, with hæmorrhage after defæcation; also sympathetic symptoms of irritation in the uterus and bladder. A speculum was introduced into the rectum, and nitric acid applied to a small granulated pile, which arrested the hæmorrhage for a time. After this, retention of urine occurred, and a catheter had to be used once, the urine passing naturally afterwards. A fortnight after that, the loss of blood still continuing, a speculum was introduced, but there was no sign of a pile or anything that could cause hæmorrhage. After this introduction of the speculum, retention of urine occurred again, and no urine would pass without the use of the catheter for about ten days; hot fomentations, baths, and opiates, being of no use. The patient being a nervous hysterical woman, I tried tonics, tincture of perchloride of iron, and liquor strychniæ, but with no good result. I then tried the effect of the magneto-electric battery applied to the lower part of the spine, and, I am glad to say, with almost immediate effect. It was used for about five minutes, the urine passing without the use of the catheter for the first time since the speculum had been introduced into the rectum. Unfortunately, the next day she received a severe nervous shock—the death of a near relative; and that day the catheter had to be used. The day afterwards, I again tried galvanism, with the same result as before; and since that time the urine has passed naturally. EDWARD WALFORD, M.R.C.S.E., Ramsgate.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

GUY'S HOSPITAL.

CASE OF HYDROPHOBIA.

(Under the care of Dr. F. TAYLOR.)

ATTENTION has lately been so much drawn to the subject of hydrophobia, that the following case, which recently occurred in Guy's Hospital, may be of interest.

The treatment of the disease seems to be now as hopeless as it ever was, and, as from the unfrequency of its occurrence, it can fall to the lot of very few to have the opportunity of employing different kinds of treatment in a series of cases, the publication of a single case may serve at least as a contribution to its therapeutics. In the child whose case is here detailed, any attempt to inject morphia subcutaneously, or to administer chloroform, caused the wildest terror and excitement, as well as muscular spasms, and it was only when a stage of exhaustion was being reached that any means of treatment could be employed. Large doses were followed by but little obvious effect other than the continuance of the exhausted condition previously existing, and probably the small dose of atropine, once combined with the morphia, was given too late to hope for any benefit therefrom. Attention may be called to the early cauterisation of the wound, to the long period of incubation, namely, nineteen weeks, and to the decided nature of the case, as far as the distinction from a hysterical fear of the disease is concerned.

The notes are from the report of Mr. G. H. Blackmore. Amelia A., aged 8, was admitted into Miriam Ward, under Dr. F. Taylor, on September 14th, 1874. On May 1st, she was bitten in the left cheek by a dog, which rushed along the street, biting several persons on the way, and was subsequently killed by a policeman. The little girl was brought to Guy's Hospital, where, half an hour after the injury, the wound was thoroughly cauterised with nitrate of silver. One bite, about the size of a half-crown, was situate below the left eye, and another smaller wound, of the size of a threepenny-piece, was at the side of the same eye. On May 4th, the wound was dressed with ointment of iodide of lead, and with this treatment progressed favourably; so that, on May 29th, the child was discharged well.

After leaving the hospital, she continued in good health, not seeming to be alarmed about the bite, but speaking of it occasionally. One month before her second admission, several boils appeared on different parts of the body; but these gradually went away, giving place to a rash, the remains of which were still visible on September 14th. About this time, she complained of the wound aching, and she had some difficulty in eating. After a week, the wound began to look red; presented a minute pustule on its inner side, and gave rise to some aching pain. The day before admission, the child could not eat her dinner, and had great difficulty in swallowing some tea. When her mother attempted to wash her head, she appeared terrified, and had some short spasmodic respiratory movements.

On admission, she had a flushed face, with sunken wild-looking eyes; the cicatrix of the wound was of a deep pink colour, prominent, shining, and presented the above mentioned pustule at its inner edge. She was very irritable, tossing herself about and screaming; answered questions rationally, giving an account of her sufferings, and referring to pain in the epigastrium, which came on at intervals of a few minutes. Temperature, 98.6 degs. Fahr.; pulse, 116. On the near approach of strangers, she started, and respiration became hurried and gasping for a half-minute; when offered milk, she shrank from it in terror, and with a spasmodic inspiratory action of the muscles of the neck and chest. She was ordered a subcutaneous injection of one-sixth of a grain of hydrochlorate of morphia.

1 P.M. She was tearing a few shreds from a piece of fowl; but, upon attempting to swallow them, said it gave her much pain in the throat. She complained also of thirst; but, when offered drink, was seized with the same spasmodic movements. More intense spasms and screamings were excited by a breath of air blowing upon her. During an attack of retching, she was seized with a violent spasm, throwing her head from side to side, as if in pain, and falling exhausted on the pillow. Later in the day, she became more used to her new position; allowed her sister and nurse to touch her; but was terrified at the approach of any one else. Trembling of the whole body was excited when she took a porringer in her hands, and, on raising it to her lips, her head was jerked away and the vessel dropped. The epigastric pain was somewhat relieved by a poultice, and she was removed to a private room in the evening. Here, about 11 P.M., she was extremely restless, sitting up in bed, rubbing her neck with one or both hands, then lying down, and closing the eyes as if to sleep, again starting up and complaining of thirst, groaning, sometimes half-shrieking, but shedding no tears; occasionally licking her dry lips. If milk were brought her, she turned away, and hid her face in the pillow, but without any violent convulsion. Once she stopped in the middle of groaning, asked some questions, smiled, and appeared happy and free from pain; but this was soon interrupted by an expression of distress, and the old restlessness and complaint of the neck and abdomen. She frequently complained of the draughts occasioned by movement of the bed-clothes. A quarter of a grain of morphia was injected subcutaneously, causing her at the time much distress and fright. An attempt to administer chloroform had to be given up on this account, and she passed a sleepless night, talking continually, screaming at the approach of strangers, but quite docile when spoken to or touched by the sister or nurse. She took neither food nor drink, and she had no motion of the bowels, but passed her urine.

During the following day, she continued in much the same state, but was at times remarkably quiet and rational, allowing the sister and some of the students to shake hands with her. Towards the evening, she was constantly wiping away small quantities of viscid frothy saliva which had collected in her mouth. At 9 P.M., the temperature was 100.6 degs. Fahr.; the pulse, 96; respirations, 28. The attempt to give a morphia injection again caused violent resistance and spasmodic sobbing movements. At 10, she was extremely restless and excited; clutching at her mother, stamping her feet, groaning and crying, wiping the viscid saliva from her mouth, rubbing the abdomen, and begging those in the room not to blow upon her, and not to give her chloroform. Occasionally, she had a spasmodic gasp, especially after much talking; but there seemed to be less actual spasm than on the previous day, but more terror and restlessness. At 11, she had half a grain of morphia injected subcutaneously, but at 12 was still walking about; and now for the first time became decidedly delirious, addressing absent persons and misnaming those present.

September 16th, 1.30 A.M. After injection of half a grain of morphia, she was less excited, still standing and crouching on the bed, but speaking more sensibly. At 4.30, two-thirds of a grain of morphia were injected. She was complaining much of thirst, and frequently made unsuccessful attempts to drink. At 9 o'clock, she was much exhausted and very emaciated, still talking and restless, though lying down. At 11 o'clock, three-fourths of a grain of hydrochlorate of morphia and one-hundredth of a grain of sulphate of atropia were injected subcutaneously. The patient became very quiet, and the pupils contracted; at 12 o'clock, she was wandering in her talk, but knew when she was spoken to; the eyes were wide open, and she was foaming at the mouth. Later on, she vomited a quantity of dark bloody fluid; and, though at first kicking the bed-clothes about, and resisting attempts to touch her, she afterwards became semiunconscious, with dilated pupils, chorealike movements of the limbs, and spasmodic respiration. At 3 o'clock, she appeared still capable of some voluntary movements; but subsequently the pupils again contracted. She became unconscious, and died at 6.30 P.M.—about seventy-six hours after the first decided symptom.

The inspection was made on the following day, twenty hours after death, by Dr. Goodhart, and the following notes are taken from his report. The cranial bones, dura mater, and cerebral sinuses, were normal; the arachnoid and pia mater were rather adherent to the brain. This organ weighed forty-three ounces; the central parts were very soft, washing away under a small stream of water; but, with regard to the vascular supply of the organ, it could not be said that the brain was even congested. The corpus striatum, optic thalamus, cerebellum, pons Varolii, and medulla oblongata, appeared to be healthy. The spinal cord was healthy, except that the central commissure was congested in places. The cervical glands were normal; the thymus and thyroid of large size. The heart weighed five ounces; was firmly contracted, pale, and its muscular substance at first sight looked fatty; this appearance was, however, due to a granular condition, the number of muscular fasciculi in which the transverse striatum was well marked being very small indeed; in the greater number, it could not be made out at all, the fibres being either glassy or granular. The right lung was congested, but the abdominal viscera presented nothing morbid, with the exception of small ecchymoses in the stomach. The cicatrix of the wound on the face was quite healthy in appearance, and there was no adhesion to subjacent parts.

DUNDEE ROYAL INFIRMARY.

(Cases under the Care of J. W. Miller, M.D.)

OBSTINATE SCIATICA, TREATED BY THE HYPODERMIC INJECTION OF ATROPIA: RECOVERY.

Jessie H., aged 43, was admitted June 21st, with sciatica of about six months' duration. On admission, there was marked tenderness along the course of the sciatic nerve. She had been treated, before admission, by morphia hypodermically and blisters, but without benefit. As she was anæmic, she was put upon saccharated carbonate of iron. On the 23rd, Corrigan's cautery was applied, with temporary relief to the pain. On the 25th, the hypodermic use of atropia was commenced, in doses varying from a sixtieth to a fiftieth of a grain, generally given twice a day, but omitted when the pupils showed her to be under its influence. This treatment, continued for six days, had an excellent effect. After a second application of Corrigan's cautery and a course of iodide of potassium in ten-grain doses thrice a day, she left the hospital cured on August 2nd.

ANGINA RELIEVED BY INHALATION OF NITRITE OF AMYL.

David S., aged 34, was admitted August 18th. This patient had suffered more or less from his symptoms for about two years. The attacks could be kept off to a great extent by his remaining quiet in the house, but were induced by even moderate indulgence in walking or other exercise. His attacks were much worst by night, generally awaking him about every hour. He had no dyspnœa. He said that he could sometimes keep off an attack by holding his breath. On auscultating the heart, a double *bruit* was found, loudest over the second right costal cartilage. There were some wheezing *râles* in both lungs. He said that he had been using nitrite of amyl with much benefit for about six weeks. Every night in hospital, he had several attacks, sometimes four during one night; and the inhalation of two drops of the nitrite of amyl invariably relieved him.

CEREBRAL MENINGITIS: DEATH: NECROPSY.

Christina M., aged 26, was admitted September 2nd. She was in hospital in July 1872, when she had slight hæmoptysis. She had not menstruated for several months until the day before the hæmoptysis occurred. The pulmonary signs were natural. There was a soft basic systolic *bruit*. She was well nourished, and her family history was good. On her admission on this occasion, the only information which could be obtained was, that she had had almost constant headache for a fortnight. The face was flushed. Pulse 84; temperature 100.8 deg. She mostly lay rolling her head on the pillow, moaning much, and occasionally raising herself and screaming loudly. Dr. Sinclair ordered her forty grains of bromide of potassium, which appeared to give her relief for about an hour, and was repeated in the evening. About 4 o'clock next morning, she was very noisy and excited, and twenty-five grains of chloral with thirty of bromide of potassium were accordingly administered.

September 3rd, 10.45 A.M. She had been considerably quieter since the draught. There was slight but distinct drawing of the mouth towards the left. The left pupil was rather larger than the right. She had strongly convergent strabismus, which was subsequently ascertained to be congenital. She could be made to understand partially, and to reply to some questions. She was ordered ten grains of iodide of potassium with twenty grains of bromide of potassium four times a day, the head to be shaved, and an ice-bag applied. She also had two ounces of black draught.

September 4th. The patient was duller and more stupid; speech indistinct; no screaming. The left pupil was larger than the right. Pulse 96, of fair volume. The bowels had been well relieved.

September 7th. Pulse 90; temperature 97.2. For the last three days, there had been apparently slight improvement. She slept well at night, and took food well. She did not scream now, nor attempt to leave her bed, but muttered deliriously a good deal; although, when her attention was fixed, she replied intelligently to questions.—Evening. Pulse 96; temperature 97.6.

September 9th. Her condition was worse. Yesterday, she was weaker, and was ordered four ounces of wine a day. To-day, the pulse was 112, very feeble. She slept much during the night, and in the morning was still very somnolent. In the course of the night, her jaws became firmly clenched, but the spasm after a time passed off. The dilatation of the left pupil, and drawing of the mouth to the left, continued; and the cheeks were puffed out occasionally during expiration. To-day, there were floccitation and delirium; yet she answered ordinary questions intelligently. When left again undisturbed, she recommenced muttering and picking at the bedclothes.—Evening. She had gradually become weaker, and the pulse was now scarcely perceptible. Temperature 97.

September 10th. She died during the night.

Necropsy.—On removal of the calvarium, no inflammation of the membranous surface of the brain was apparent. About three ounces of serum were found in the left ventricle. The brain-substance was congested and somewhat softened. The membranes in front of the upper part of the medulla and pons were thickly covered with lymph.

CEREBRAL MENINGITIS: DEATH: NECROPSY.

William S., aged 52, was admitted on September 17th in a state of unconsciousness. He was able to move all his limbs freely, but could not stand. The pupils were natural, and there was no squint. Pulse 96, rather compressible. After being put to bed, he was very restless; he would lie quiet for perhaps about five minutes, then commence rolling his head from side to side, and tossing his limbs about. His friends who brought him in stated that he was at work until two nights before his admission. He had been drinking heavily. He had slept well all that night; in the morning, suffered from diarrhœa; had risen, but shortly returned to bed; and since then had not spoken, appearing to be unconscious. On the 18th, he was much in the same state, except that there were slight paralysis of the right side of the face, and convergent strabismus of the left eye. He died at 6.46 P.M., three days from the first appearance of illness.

Necropsy.—There was considerable congestion of the dura mater. Over both hemispheres, the sulci were filled with greenish-yellow lymph. When the brain was raised from the base of the skull, the space left between the pons and the base of the skull was filled with sero-purulent fluid, and the inferior surface of the cerebellum was bathed in pus. The interpeduncular space and the optic commissure were thickly covered with lymph. The ventricles contained much sero-purulent fluid. The cerebral substance was softer than natural, and the vascular points unusually abundant. No clot was found, though carefully looked for. The cerebellum was also softer than natural, though less so than the cerebrum.

Bequests.—The late Marchioness of Thomond, by her will, left the following bequests, among others: to the Hospital for the Paralysed and Epileptic, Bloomsbury, £200; to the Bath General Hospital and the Bath Royal United Hospital, £100 each; and to the Eye Infirmary, Bath, and the Western Dispensary, £50 each, all free of duty.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

Subscriptions to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. Francis Fowke, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 28TH, 1874.

THE CONTAGIOUS DISEASES ACTS: DR. NEVINS' STATEMENT.

Dr. Nevins has recently, with the aid of a statistician, constructed a critical "statement" on the official records and statistics of the Contagious Diseases Acts. After inspecting it, we are disposed to think that this was the source from which Mr. Stansfeld lately collected his denunciation of those Acts, of which the reckless inaccuracy and violence have not added to his reputation for statesmanship and common sense. This "statement" is addressed to the Home Secretary, and has a very imposing and semi-official dress. It is drawn up most methodically, with numbered paragraphs, on folio paper, and bears on the title-page three quotations, of which one is selected, with considerable courage, from the appendix of the Report of the Commission. This quotation is, like some others contained in the body of the pamphlet, so changed by omission of context, that a different meaning from that of the full text is conveyed. In the "general outline of the 'statement'", we are told that the *objections* to the Acts are fairly set forth. The harsh and unjust features of the Acts, and the injury caused by them, are also illustrated. Lastly, the medical aspect of the question is, as the author believes, entered upon very fully, and with the utmost impartiality: but the inspection of the statement leads us to an opposite conclusion. The result of this impartial and judicial investigation is, that the Acts are a complete failure as regards the health of the army, navy, and the prostitutes. The statement includes what it calls an abstract of the report of the Royal Commission, but which is nothing more than a detached string of sentences from the report unfavourable to the Acts or without their context. For example, paragraph 105 puts, as a quotation in inverted commas, "the protected districts are resorted to by strangers for the purpose of safe indulgence", but omits the words "there is some slight evidence that", which in the report itself go before the "protected districts", and which very materially reduce the force of the sentence. That the evidence was indeed slight, is shown by reverting to the witness's statement, on which it exists. That enthusiastic opponent was able to tell the Commission that some one had informed him that a commercial traveller had once made Cork his Sabbath resting-place because it was under the Act. If nothing worse can be brought against the Acts, after the vast amount of labour and ceremonious introduction that have attended the birth of this pamphlet, the statutes are, we think, likely to endure.

The authorities Dr. Nevins has employed, in drawing up his statement, are the Army and Navy Medical Reports, recent Parliamentary Papers, and the Report and Minutes of the Royal Commission. That part of the latter has been freely drawn upon which contains the sensational statements and the hearsay evidence of certain of the witnesses who were opposed to the Acts; but reference is not made to the counterstatements of witnesses whose evidence is far more weighty, who speak from their own knowledge, and produce documentary proof of the correctness of their evidence.

We shall pass briefly over the discussion of the moral effects of the Act, merely pointing out that the opponents of the Acts have only certain high theoretical objections to urge as a counterbalance against the proved moral benefits. These moral effects are such as to induce us to range ourselves on this question, not with Dr. Nevins, but with such men as Lord Hampton, Lord Hardinge, Sir John Trelawney, Drs. Paget and Wilks, Mr. Timothy Holmes and Mr. G. W. Hastings, who, in an appendix to the Report of the Royal Commission, express the conviction that the good moral effects of these "calumniated" Acts far outweigh any moral objections which have been, or can be, urged against them. These good moral effects are, that religious and moral influence has been brought to bear on a number of women who have been, from infancy, familiar only with scenes of debauchery and vice; and that many of them have been reclaimed to a respectable life. Towns and camps have been nearly cleared of the wretched creatures who formerly haunted the thoroughfares. Juvenile prostitution has been greatly lessened, and in some places wholly removed. The total number of prostitutes has been much reduced, and those who remain are more decorous. Clandestine prostitution has been materially checked. By these removals of temptation from the path of young men of all classes, morality has been promoted. To this must be added, that the Commissioners were unanimous in stating their conviction that the police are not chargeable with any abuse of their authority, and that they have conducted a difficult duty with moderation and care. This satisfactorily disposes of Dr. Nevins's assertions that the Commission condemned police spies, and of similar errors.

Let us pass to a brief examination of the arguments brought forward to show that the Acts fail in reducing the sickness of the army and navy, the chief object for which they were enacted and are enforced. By handling Dr. Balfour's official statistics in several ways—now contrasting the figures in one way, now setting the ratios in opposition in another—a case is made out which, to an inexperienced or superficial observer, appears incontestable, that the amount of venereal sickness in the army is practically not influenced by the Acts. But a little patience in unravelling the tangle soon clears away the fallacious appearances presented by this confusion.

Opposite his title-page, Dr. Nevins has attached charts of the five stations where the Acts were first in force. In these, a black line, carried across the upper part of the scale, shows that entries for enthetic diseases in the Army Medical Reports for 1860-68, were falling, not regularly, because, compared with each other, successive years varied much, high entries following low ones, and *vice versâ*. Notwithstanding this, the fluctuating tide was, on the whole, an ebbing tide, even before any Acts were passed. Below this black line are two others, dotted across the scale, to bring into comparison Dr. Balfour's annual ratios for primary venereal sore and gonorrhœa; that is, for the two earliest and immediate conditions of venereal disease. But these tables do not date further back than 1864, the year when the "Permissive" Act was passed, and before any sanitary measures were in operation in this country. They also fluctuate year by year; those of primary sore tending downwards, while those of gonorrhœa ascend slightly. Dr. Nevins contends that, as venereal disease of all kinds was diminishing at these five stations quite as rapidly, if indeed not more so, in the early years of the reports as after the enforcement of the Acts, primary sores and gonorrhœa were. It is indisputable that the entries for venereal sores had been diminishing year by year before the Acts were passed, and it is possible that, as they sank less rapidly than "venereal of all kinds" had done in preceding years, the Acts retarded instead of accelerated this diminution. To this the answer is easy. Dr. Nevins is comparing two sets of figures that are not comparable; he has committed an error which Dr. Balfour foresaw, and avoided by using in his calculations only the entries for venereal sore and gonorrhœa. "Venereal of all kinds" includes venereal diseases both recent and remote; both that contracted within a few days or weeks, and that brought to the district under examination from India, America, or some other station in the United Kingdom. Hence, to obtain a reliable estimate of the amount of disease really contracted in the district, Dr. Balfour limited his comparison to that form of disease which cannot have existed long before it is reported to the surgeon.

Dr. Nevins adduces no proof to show that the unknown quantity of venereal disease foreign to the district remained the same or nearly so; hence, the assumption that venereal sores were increasing year by year before the Acts were introduced, is as reasonable—if we note how unprotected stations behave—and probably nearer the truth, than that they were diminishing year by year. Also, his second deduction that gonorrhœa has increased at the stations under the Acts since their enforcement is not strictly correct. Though the number of entries for gonorrhœa has increased at the protected stations, it has also still more increased at the non-protected stations; and, to use the words of Dr. Balfour in his memorandum prepared for the House of Commons Committee in 1869, "the operation of the Act would seem to have been in counteracting an increase rather than in effecting a decrease of the disease". It is on this slight foundation that the opponents have raised the cry that the advocates of the Acts have acknowledged them a failure against gonorrhœa.

As a matter of fact, men suffering from relapses of the same infection are returned as fresh entries every time a relapse of their disorder occurs, and none relapses more frequently than gonorrhœa, and sends them into hospital again. This is one cause of the high ratio of gonorrhœa. Another cause is one that equally influences the returns of primary sore in the protected district. It cuts two ways against the Act; it burdens the returns of the protected districts, while it diminishes the amount of disease in the non-protected districts. When the Acts were set in force, they were applied to garrison towns in preference to the metropolis or to large manufacturing towns, because, while the need for preventive measures was much greater, a sanitary measure of an experimental kind could be more easily carried out there than in a metropolis like London or Dublin, where only similarly large numbers of troops are quartered. In manufacturing towns, the garrisons are small, in no case reaching 1000 men. Thus, the conditions are very different. In the garrison towns, among the large number of troops, some corps is constantly departing for new quarters to be replaced by another arriving from unprotected districts. This interchange or migration imports men into the protected districts who have contracted their disease elsewhere, and who not only act as *foci* of infection to others, until detected or secluded in hospital, but figure in the entries of the district as cases of disease in that district; whereas, on the other hand, the corps, after a stay in a protected district, arrives in a small garrison town comparatively, if not quite, clear of contagion. Some time is needed before the small opportunities that arise in the new quarters make any sensible impression in the entries; yet, when contagion does reach the district, it quickly spreads among those who expose themselves to it, and sends up the ratio rapidly. Hence, the entries of protected districts are raised by importations of disease, while the results of sanitary precautions enforced in them limit to some degree the propagation of disease in unprotected districts. It is in this way that the small garrisons, where 500 or 600 men are quartered, such as Athlone, Pembroke, or Belfast, show so great variations, sometimes having an entry lower than any of the protected stations, but at others an entry many times exceeding that of the protected stations.

The 9th Lancers spent the whole of 1871 at Aldershot, a protected district; their strength was 600, and the number of cases of primary sore was 24, and of gonorrhœa 40. In 1872, the entries were 38 and 48 respectively; but in this year the regiment removed from Aldershot to Woolwich, took part in the autumn manœuvres of that year, and then marched to York. Of these, 12 sores were contracted at Aldershot or Woolwich; the remainder, 26, during the movements of the regiment beyond the protected districts. In the year 1873, the regiment was quartered at York, a non-protected town; the strength of the regiment being 595, or almost the same as at Aldershot. In this year, 78 cases of primary sore and 70 of gonorrhœa were admitted to hospital. Fifty-four of the primary sores were contracted at York; the remainder by men while on furlough in various parts of England. In the year 1874, the regiment remained at York till June 11th, in which period 13 cases of primary sore and 26 of gonorrhœa were contracted. The regiment marched to Colchester; and, up to November 21st, there were 10 cases of primary sore and 13 of gonorrhœa; 6 of the 10 sores being contracted out of the district, and 4 in it.

Similar accounts of the enormous difference between the condition of the Guards at Windsor and at London have been published by the surgeons to those regiments, Mr. Lane and Mr. Myers, in a contemporary and in the BRITISH MEDICAL JOURNAL.

It is obvious that the great differences between large towns, where part of the numerous garrisons is often changing, and a small one, where the few hundreds of men remain quietly for many months, render any comparison of their ratios useless. The absurdity is thus patent of Dr. Nevins's comparison between Worley, a little station of a few hundred men, and Plymouth, a large town with a garrison of 2,500 soldiers, not including a greater number of sailors and marines, simply because their annual ratios are similar. So, again, Portsmouth is compared with Limerick, Chatham and Sheerness with Fermoy, and so on. The present ratios of these districts with large populations and large garrisons can only be fairly compared with their own ratios before the Acts had had time allowed them sufficient for a fair trial, or with those of districts with large population and large garrisons that still remain without preventive measures. Tried by these tests, all these garrison towns show an enormous diminution in their usual proportion of disease. To do this fairly, the ratio of the year beginning the term must not be compared with the ratio of the year ending the term; their accidental fluctuations, of which Dr. Nevins can make ready use when they suit the point he is putting forward, render them fallacious expressions of the general condition of the districts. But it is on comparing a recent year which may chance to be a high one, that Dr. Nevins relies for showing that the ratio of a district he is examining is not going down, or that it is going down should the ratio for the year selected chance to be a low instead of a high one. But, by taking the usual ratio for a series of years, and comparing it with the usual ratio of another series, the amount of increase or diminution is detected at once: for example, during the years 1864-65-66-67, the usual ratio of Devonport and Plymouth for primary sore was 100; but, in the years 1870-71-72-73, the usual ratio was 50, or one-half less. Portsmouth, for the same periods, shows 110 against 44, and so on. Though the diminution is not the same in all, in some more than others in *all* the protected stations, it is less in the later series than it was in the earlier series. But, in the unprotected stations of large garrisons, there is no diminution. In Dublin garrison, ranging between 4,000 to 5,000 men, the ratio for the early series of years was 146, and in the later series 136. The ratio between 146 and 100 is very different from that between 136 and 50.

Again: London gives an equally unfavourable picture to those opponents of the Acts; and Dr. Nevins is among those who put their faith in improved hygiene and comforts to staying the spread of venereal among the soldiery. London was until 1868 grouped with Windsor in the returns, but thenceforth its ratio has been given separately for 1868-69-70. The ratio was 154; for 1871-72-73, it was 190, or an increase of 28 per cent. over its former rate. To recapitulate: the Acts are in force at Devonport and Plymouth and at Portsmouth; when they began operations, the usual ratio for a series of four years was 100 and 110 respectively; during the last four years when the Acts have been in force, the ratio has sunk to 51 and 44 respectively. In Dublin and London—districts with equally large garrisons, but also capital cities, where no Acts are in force—the ratio has remained very high in both, decreasing only 7 per cent. in one, and increasing 28 per cent. in the other. There are many other ways in which the fallacies of Dr. Nevins's statement may be attacked, but for the present at least we have said enough.

PROFESSIONAL FEES.*

THE Shropshire Ethical Branch of the British Medical Association has shown the importance which it attaches to a suitable understanding on this subject, by the manner in which it formerly dealt with the difficult and complex question of the tariff of fees, and it has just given fresh proof of its energy by issuing a revised edition of its pamphlet, including a scale of charges for medical and surgical attendance. It is to some extent desirable that medical men in all parts of the country should appraise their services upon an uniform system, and the want of such uniformity is often injurious to ourselves, and the cause of unseemly disputes. Hence the importance of the task which the Shropshire Ethical Branch has taken upon itself. It would be much for the advantage of the profession if a copy of this tariff were in the hands of every general practitioner in the kingdom, in order that he might try as far as possible to bring his own scale of charges into harmony with it.

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* *The Medico-Chirurgical Tariffs*, issued by the Shropshire Ethical Branch of the British Medical Association, pp. 12. Shrewsbury; W. Wardle. 1874.

The rental of the patient is taken as being, on the whole, the surest indication of his circumstances; and the desire of those who have framed the tariff has been to secure for their brethren a fair and equitable remuneration in accordance with the patient's position and ability to pay. Of course no hard and fast line can be drawn. Latitude must always be allowed to the practitioner to form his own judgment according to local conditions and the peculiarities of the case. In this tariff, patients are broadly divided into three classes. The first comprises those whose house-rent is from £15 to £25 *per annum;* the second ranges from £25 to £50, and the third from £50 to £100; and a maximum and a minimum charge are suggested for each class. In the same way, we are furnished with a list of surgical operations, with maximum and minimum fees for each, according to the class under which the patient falls. A variety of points arising out of these subjects, such as consultations, mileage, the supply of drugs, certificates, etc., are dealt with in detail; but into these matters it is impossible for us to enter. We must content ourselves with a few general remarks. And, first, we must observe that the whole scale of remuneration is studiously moderate, while at the same time the pamphlet strongly recommends short accounts, and, in the case of the lower classes, ready-money payments. Careful observation has led the Shropshire Council "to believe that the great majority of ten-pound householders are professionally cared for by sick-clubs. There is, however, outside the clubs a still lower grade of the commonalty that may be fairly called upon to pay more or less, according to their circumstances—a class which, for their own health's sake, it is very desirable, by affording them every reasonable facility for consulting qualified practitioners, to keep from the counter of the unqualified druggist and the clutches of the charlatan; and, though it has been found impracticable to arrange a scale specially adapted to the means of the class alluded to, the Council would earnestly impress upon the members the desirability of attending them at reduced fees. Not only would it be a boon to the poor themselves, but, in thickly populated districts, partially remunerative to the practitioner, independently of any higher source of satisfaction or reward. At the same time, such nominal charges should always be made, if possible, for ready money."

Again, we observe with pleasure that the tariff discourages altogether payment for drugs, and strives to accustom patients to pay rather for the time and skill of the medical man; and advises strongly that, whenever it is practicable, the medicines should be supplied from a chemist's shop, and not from the doctor's house. Again, it should be noticed that "the surgical tariff is intended simply as a guide for general practitioners, in contradistinction to the metropolitan and provincial surgeons of special skill and repute". It is meant more particularly "for the well-to-do artisan, trade, and middle classes, not for the upper or wealthy grades of society; to which latter higher fees, commensurate with the skill and responsibility of the operator, should be charged."

On the whole, the difficult task which the Shropshire Ethical Branch has imposed upon itself appears to us to have been performed in an excellent spirit and with great judgment. Those who have drawn up this pamphlet have held in view the dignity of their profession; and, while they demand what is fair and equitable towards their brethren, they show that kindness and consideration for the sick and suffering, which we trust, will always characterise the medical men of our country.

A COTTAGE INFIRMARY has been opened at Lewes. It is conducted by two Sisters of Mercy from East Grinstead.

DR. RODEN was re-elected Mayor of the borough of Droitwich, not Kidderminster, as was announced in last week's JOURNAL.

WE understand that Dr. Angus Fraser has been appointed to lecture on Midwifery at the University of Aberdeen during the present session, in the absence, through ill health, of Professor Inglis.

IT is understood that H.R.H. the Duke of Edinburgh has consented to take the chair at a meeting to be held in London on December 7th, in promotion of the scheme for extending the University buildings of Edinburgh.

DR. BOTKINE, Chief Physician to Her Majesty the Empress of Russia, and Professor of Medicine in the University of St. Petersburg, accompanied by Dr. McKellar of St. Thomas's Hospital, paid a visit, and remained for two hours, at one of the evening examinations for the diploma of membership of the Royal College of Surgeons. He was courteously received by the President, Mr. Le Gros Clark, and introduced by him to the members of the Court. He was much pleased with the thoroughly practical nature of the examinations, especially on the various patients, of whom there were twelve. He expressed his intention of introducing this feature on his return to the Russian capital.

DR. BUCKNILL'S ADDRESS AT THE WEST RIDING ASYLUM.

WE publish to-day Dr. Bucknill's able address, delivered at the West Riding Lunatic Asylum, on the Medical Aspects of the Law of Murder. This able address was read before an assembly of several hundred medical residents of Yorkshire, and is worthy of its audience and of its author. Of the address, the place, and the occasion, we shall have more to say next week.

THE RADCLIFFE INFIRMARY.

MRS. COMBE, widow of the late Thomas Combe, of the Clarendon Press, Oxford, has offered, and the governors have accepted, the sum of £5,000 for a children's ward to the Radcliffe Infirmary in that city. This munificence on the part of Mrs. Combe will be highly appreciated at Oxford, where the want of a separate hospital for children has long been felt.

DISEASES OF ARTISANS.

ON November 9th, Dr. E. Lewy commenced a course of lectures in the Technical High School of Vienna, on the diseases of artisans. The lectures, which will be continued on Mondays and Thursdays, embrace the following subjects: the characteristics of labour by children, women, and men; the influence of the positions of the body required in various occupations; the unequal or immoderate use of individual organs; abnormal temperatures; diseases produced by dust; chronic poisoning from trades; the means of protection from infectious diseases; and the first help in cases of accident.

THE PUBLIC HEALTH.

DURING last week, 5,653 births and 4,212 deaths were registered in London and twenty other large towns of the United Kingdom; and the annual mortality averaged 29 deaths in every 1,000 persons living. The death-rate was 27 in Edinburgh, 36 in Glasgow, 24 in Dublin. In the eighteen largest English towns, the annual death-rate from the seven principal zymotic diseases averaged 4.7 per 1,000 (of which 2.2 was due to scarlet fever), and ranged from 1.3 and 1.4 in Norwich and Bristol to 9.2 and 11.1 in Hull and Liverpool. The deaths referred to scarlet fever in those eighteen towns were 282; the disease was most prevalent in Liverpool, Bradford, and Sheffield. Small-pox caused 10 of the deaths registered in Birmingham. In London, 2,469 births and 1,795 deaths were registered. The annual death-rate, which, in the four previous weeks, had increased steadily from 20 to 23 per 1,000, rose suddenly last week to 28, a higher rate than has prevailed in London in any week since the beginning of the year. This marked increase in the death-rate, which was most conspicuous in diseases of the respiratory organs, and among persons aged 60 years and upwards, was due to the cold weather which prevailed from the 7th to the 14th instant. To the principal zymotic diseases, 253 deaths were referred, 35 below the corrected average number of that week. The two Fever Hospitals at Homerton and Stockwell, which may accommodate 372 in-patients, contained 352 patients on the 20th instant. The deaths from scarlet fever rose to 124. The Small-pox Hospital at Homerton has now been set apart for the reception of scarlet fever cases, and of its 102 beds, 66 were so occupied on the 20th instant. The deaths referred to diseases of the respiratory organs and phthisis rose to 672 last week; of which, 281 resulted from bronchitis, 202 from phthisis, and 135 from pneumonia. The deaths of persons aged 60 years and upwards were 413; 58 were of octogenarians, 14 of nonagenarians, and 1 was of a mariner, at Greenwich, stated to be aged 101 years. The temperature was above the average on each of the first six days of the week; but on Saturday it was so much as 8.4 deg. below the average.

EXTIRPATION OF THE ENTIRE LARYNX.

PROFESSOR BILLROTH of Vienna performed this formidable operation for the second time on November 11th, in the Allgemeine Krankenhaus in Vienna. The patient, a man aged 50, came about six weeks previously under the care of Dr. Schrötter, the teacher of laryngoscopy, complaining that he had suffered for some time from hoarseness and increasing difficulty of breathing. Laryngoscopic examination detected on the left vocal cord a nodulated growth, apparently closely adherent to the mucous membrane. It was diagnosed to be epithelioma. As the disease made rapid progress, the whole interior of the larynx becoming affected and the dyspnœa constantly increasing, the patient was transferred to Dr. Billroth for the purpose of operation. Dr. Billroth gave a favourable prognosis with regard to the return of the disease, on the ground that no infiltration of the adjacent lymphatic glands could be detected. The operation of extirpation of the larynx was performed by Dr. Billroth, in the presence of a large number of medical men and students. Microscopic examination completely confirmed the accuracy of Dr. Schrötter's diagnosis. The patient died on the night of the 16th, apparently from hypostatic pneumonia.

SCHOLASTIC DISSENSIONS.

IN another page, our Paris correspondent gives an account of the disagreement between the students of the Faculty of Medicine and M. Chauffard. We learn also from a Vienna journal, that dissension exists in the University of St. Petersburg between the students and one of the professors, a man of scientific eminence. It is stated that the students are intolerant of the conduct of Dr. Cyon, Professor of Physiology, who ridicules his colleagues before them; and that they demand science and not polemics for their money, and desire his removal. On October 29th, Professor Cyon was received with expressions of disapprobation, in consequence of which his course was closed. The cause of the demonstration against Professor Cyon is said to be the extraordinary severity with which he conducts examinations. It is further said that for two months, without any reason, he has entirely discontinued his physiological lectures, and has thereby rendered it impossible for the students to prepare themselves. He has also distributed among them a book of his entitled *Work in the Physiological Laboratory, with Critical Articles*, in which the most esteemed teachers in the Academy, especially Professor Gruber and others, are attacked in the most immoderate manner. The affair is under official investigation.

A LIVING ANCESTRAL FORM OF THE CŒLENTERATA.

AT the last meeting (November 19th) of the Linnæan Society, Professor Allman, the President, read a most interesting paper on a new form of hydroid polyp. It was discovered living parasitically, possibly only as a "commensal", within a horny species of sponge found upon stones in the littoral zone of the Mediterranean, not far from Nice. From the efferent openings, or "oscula", of the sponge, crowns of tentacles were seen to protrude; and Professor Allman thought that he had come upon an animal representing "phytogenetically" the common ancestral form of the sponges and zoophytes, such as Professor Häckel of Jena has suggested. The animal, however, was found to be a true hydroid polyp somewhat resembling the well known form *Campanularia*, but is regarded as the representative of an entirely new order, for which the name of *Thecomedusa* is proposed by Professor Allman. Each individual inhabits a horny cup, into which, like a campanularian polyp, it can enter when danger threatens, and is, moreover, in connection with a branching along of numerous neighbours, each of which can protrude at will its tentacular crown from that sponge "osculum" which is nearest to it. What is more remarkable is, that it resembles a yet sessile *Medusa* in having four equidistant radiating canals, but, unlike it, wants only the marginal circular canal at the base of the fringes, and the production of the oval opening into a kind of rostral "manubrium". No generative organs have as yet been discovered. Professor Allman is inclined to believe that the animal remains perfectly sessile, and never becomes detached as a free-swimming medusoid. He is also disposed to regard it as an archaic form linking the hydroid polyps and medusæ together.

IRELAND.

THE Wexford Rural Sanitary Authority, at their last meeting, reconsidered the question of the salaries of the sanitary officers, at the request of the Local Government Board. They passed a resolution, by a large majority, to the effect that they did not see why they should make any different order on the subject.

THE SOUTH OF IRELAND BRANCH.

THE opening meeting of the above Branch took place on the 14th instant, under the presidency of Dr. Thomas Gregg. This Branch commences prosperously with forty members, the majority of which are new. A meeting was held on Wednesday, for the purpose of making bye-laws and arranging the programme of the session. Some excellent important papers have been promised.

UNIVERSITY OF DUBLIN.

MR. GIBSON, a barrister, and Dr. Traill have signified their intention of contesting the representation of this University in the Imperial Parliament. Dr. Traill would be a most desirable member; but it is generally considered that his opponent has a better chance of success, and it is most probable that another member of the legal profession will be returned.

DUBLIN OBSTETRICAL SOCIETY.

THE opening meeting of the session was held at the College of Physicians on Saturday last, the chair being occupied by Dr. Evory Kennedy, President for the past year, who delivered an inaugural address, after which the following officers were elected for the year:—*President:* Dr. Lombe Atthill. *Vice-Presidents:* Dr. Thomas Darby, Dr. John Cronyn. *Treasurer:* Dr. Halahan. *Secretary:* Dr. J. A. Kirkpatrick. *Committee:* Dr. Fleetwood Churchill, Dr. Denham, Dr. Johnston, Dr. George H. Kidd, and Dr. McClintock.

JUNIOR SURGICAL SOCIETY OF IRELAND.

MR. FITZSIMON, the President, delivered an opening address to the members of this Society on the 21st instant. In his opening remarks, he explained the objects of the Society and the many advantages to be derived from it. It afforded a central point, where students from every school of medicine in Ireland could meet and discuss subjects connected with medicine and surgery. It also tended to draw students together, and so to create amongst them a greater *esprit de corps*. The beginning of correct observation, he said, dated from the labours of Hippocrates. He enumerated the works of this great physician, spoke of the great schools of medicine which followed his time, and glanced at the labours of Galen, the Arabian physicians, referred to the medical schools founded at Salerno, Paris, and elsewhere in the thirteenth century, discussed the state of surgery in the middle ages and the influence which Ambroise Paré exercised in it, and referred to the labours of Paracelsus, and of Vesalius, Fabricius, and other great anatomists of the sixteenth century. Having also referred to Bacon, Harvey, and Jenner, he finally dwelt at some length on the subject of fever, pointing out the errors in the pathology of it, which prevailed up to this period, and showing how Bretonneau in France, in 1820, first placed the study of it on a sound basis, and he was ably seconded by Robert Graves in Ireland, whose indefatigable labours threw much light on the subject, and whose labours, in conjunction with his colleague Dr. Stokes, mainly contributed to the fame which attended Dublin as a school of practical medicine. The speaker dilated on the advances made in pathology during the last thirty years, which, he said, had been truly wonderful, and he pointed to the more correct views now entertained on the subject of phthisis as one of its results.

SCARLATINA IN BELFAST.

The mortality from scarlet fever in this town is assuming very serious proportions, no fewer than 52 deaths from that disease having been registered last week, being 16 more than in the preceding week. The epidemic of scarlatina which is gradually diminishing in Dublin was considered to be very severe in the fatal results occurring from it, but at no time was the death-rate higher than 34 in the weekly records.

THE MEETING OF THE ASSOCIATION IN EDINBURGH, 1875.

A large and influential meeting of members of the medical profession was held on Friday, the 20th instant, in the hall of the Royal College of Physicians, Queen Street—Professor Sir Robert Christison, Bart., in the chair—to take the preliminary steps towards receiving the British Medical Association next summer. The Chairman, in introducing the business of the meeting, remarked that by many it had been thought advisable that the British Medical Association should not have been invited to Edinburgh until the New University Building and the New Infirmary had been completed; but such a strong desire had been expressed on the part of many leading members of that body to visit Edinburgh, that it could not be overcome. The British Medical Association was the strongest and most numerous medical body in the kingdom, having enrolled between 5,000 and 6,000 associates, and it was to be expected that they would muster very strongly next August. He (Sir R. Christison) had been elected President-elect, and he ventured to express a hope that a warm and adequate welcome would be accorded to the expected visitors. Of course, much attention must be devoted to details, and, therefore, it would be necessary to appoint local secretaries, treasurers, and subcommittees to attend to the various departments. He was happy to say that Dr. J. Batty Tuke had received promises of assistance from 160 medical gentlemen, and it was pleasant to remark that a large number of country practitioners had come forward to aid the cause. It appeared to him that the present meeting should constitute itself a General Committee, and that it should appoint an Executive Committee composed of active workers who would pay especial attention to the various departments. It was proposed, and carried by acclamation, that Professors Sir R. Christison, Douglas Maclagan, Rutherford, Lister, Spence, Drs. Matthews Duncan, J. Batty Tuke, Clouston, Strachan, Messrs. Annandale and Chiene, should be named as the Executive Committee, with power to add to their number, with instructions to obtain the co-operation of any non-professional gentlemen who would assist in carrying out the object. Dr. Matthews Duncan spoke of the admirable manner in which the last three annual meetings of the Association had been conducted, and informed the meeting that Professor Spence had consented to give the Address in Surgery, Dr. Warburton Begbie the Address in Medicine, and Professor Rutherford the Address in Physiology. Several subcommittees for the carrying out of details, as well as treasurers, secretaries, and other officials, were appointed; but, as the gentlemen mentioned have not yet in all cases accepted the posts assigned them, it would be premature to report their names. However, they embrace the names of many of the most eminent practitioners in medicine and surgery in the city and neighbouring counties.

THE RECENT OUTBREAK OF FEVER AT LEWES.

DR. THORNE THORNE'S REPORT.

Valuable as Dr. Thorne Thorne's reports always are, from the pains and skill which he evinces in the collection of facts and the closely reasoned deduction which he draws from them, his report on the late epidemic at Lewes deserves special attention, as it brings to light a new and hitherto undreamed of source of danger through the intermittent system of water-supply. The following is a summary of Dr. Thorne's report to the united sanitary authorities and inhabitants of Lewes.

Towards the end of July and the beginning of August last, the outbreak of enteric fever commenced in the town. On August 1st, seven cases occurred, and during the following fortnight forty more fresh ones took place. The disease continued until the early part of September, when there was a decided diminution in the number of cases, but after that it increased, and culminated in the occurrence of 197 fresh cases in the fortnight ending October 24th. Then there was a further diminution, and at the present time, fortunately, we appear to see every sign of its subsidence. Altogether there have been about 450 cases, of which 27 have terminated fatally. Enteric fever is always found in association with what is termed excremental pollution of air or water. If the poisonous evacuations of a typhoid fever-patient in any way get into a stream, the water of which is used, or from a cesspool into a well, the water derived from such a source is unquestionably capable of conveying the disease. Or again, if the poisonous evacuations of a patient pass into the sewer, and there by connections between it and the interior of houses, which enables the foul air to come up into the house, then the inhalation of the air is capable of conveying the disease. The disease appeared almost suddenly in all parts of the town; and cases occurred among prisoners in the county prisons, though isolated not only from the people of the town, but from each other. Mr. Bradon, the medical officer of health, in view of the facts that the disease had occurred suddenly, and that its distribution had been very universal, was firmly convinced that it was due to polluted water.

With a view of ascertaining how the disease had risen, the medical men gave lists of all their cases. The 45 cases occurred up to August 15th in 43 houses. The milk which these people drink came from 13 different dairies, having very different water-supplies, some in the town, others in the country. But it was perfectly impossible to imagine that some one cause had suddenly at a given moment influenced all these different dairies, so that it was necessary to exclude milk as a cause of the disease. Then, again, 22 of the affected houses were connected with cesspits, and the remaining 21 with one of three different arrangements of sewers, having nothing in common. But of the 43 houses that were affected, situated, as they were, in three separate sanitary districts, the town water was laid on to 34, and only nine used well-water. Out of a total of nearly 2,100 houses in the town, only 955 were supplied with the town-water But the circumstances elicited in connection with the nine houses which did not have the town-water were far more striking, and afforded very strong confirmation of the theory that the outbreak was due to the pollution of the town-water. The members of the nine families attacked, happened actually to be persons who, although using well-water, had drunk the town-water. In some instances, the person attacked was the only one of the family who had drunk the town-water. As far as the earlier part of this outbreak is concerned, the people who were attacked, were all, with one exception, drinking the town-water.

Out of 412 cases which occurred up to October 31st, 325 lived in houses having town-water, whereas 85 lived in houses having well-water; the remaining two drank water coming from a rock, or rain-water. In the Cliffe, out of 454 houses, only 60 take the town-water, and 16 cases of typhoid fever was reported there to October 31st. Thus, with two exceptions, the whole incidence of the fever was upon the 60 town-water drinkers to the exclusion of the 394 well-water drinkers; in short, up to the end of October, one or more persons in 27 out of every 100 houses having the town-water had been attacked; whereas, only six out of every 100 having well-water had been affected. The principal pollution has unquestionably taken place after the water was in the mains.

The water of Lewes is supplied on the intermittent system, being delivered for three or four hours in the morning and in the afternoon. As soon as the water is shut off, its place must be occupied by air drawn in or some other matter at some point. One source of pollution in this way occurred in the case of water-closets supplied by town-water direct from the mains without cisterns, of which there are several in the town; and unless the top of the closet be always kept closed, there is very great danger of air from the pan being drawn into the main when the water is shut off. There were several instances in which the taps are always kept open, and in these foul air from the closet-pan could be drawn into the mains. The suction is very considerable; for, when a lighted candle is placed at the mouth of the tap, the flame is immediately sucked up and put out. These service-pipes existed in houses where the early cases of typhoid fever occurred. The open pipe communicating with the mains passed into closet-pans containing the evacuations of typhoid fever patients; and it is almost impossible that particles of the diseased evacuations could escape being drawn into the mains.

Another possible method by which the water was polluted in the mains is this. Wherever a bad joint or crack in the mains happens, and those mains pass through a soil which is in any way fouled by a leaky drain, foul matters will be liable to be sucked into the mains when the water is turned off. Or, again, where the mains pass actually through the sewer, if by any chance a leak occur in this situation, the foul air in the sewer—possibly the sewage itself—may be drawn into the mains. Mr. Crosskey and Dr. Thorne found instances of the occurrence of this in the town.

Another method by which the pollution of water in mains can be effected is the corrosion in the lead-service pipes, which notoriously occurs in Lewes. If the soil happen to be polluted in any leaky house-drain, there is a danger that foul matter may be drawn into the service-pipe. But the pollution probably occurs from the nitrates in the water or sewage acting on the lead-piping. One of the Commissioners gave a striking confirmation of the possibility of this taking place. He had put down a service of lead pipes, but in three months he found that they leaked, having been eaten through. There had been a leakage from the urinal; in other words, a fluid containing nitrates had existed, and the pipe had been eaten through. A person found a leak in his lead service-pipe, and, on opening up the soil, the moment the point of perforation in the pipe was reached the liquid in a cesspool was sucked into the water-pipe and carried into the main.

We are not justified, Dr. Thorne says, in assuming that enteric fever can arise *de novo*, and hence he sought to ascertain whether before the general outbreak the evacuations of any persons suffering from enteric fever could have been cast into a water-closet, the water for which came direct from the main; and there was an absence of evidence to show that there had been such a case. But this method of water pollution will not account for the cases at the County Prison; for the prison main is kept fully charged, and both mains coming from the reservoir by which the prison is supplied are kept constantly charged for a considerable length of their course. Therefore, pollution at the very source of the water must account for the origin of the outbreak; and this pollution must have taken place about the middle of July. The town water is supplied from springs, in the first instance, filling an open reservoir; then there are other springs which rise in a place called Verrall's Pool. Owing to the drought during the past season, for several consecutive Mondays in July last water was pumped from the Cockshute stream. The Cockshute is tidal; and, with a view to preventing the tide from coming up to the water-works, a tidal valve was placed some little distance down the stream. In July last, some children placed some boulders of chalk in this valve, which prevented its closing. These boulders were found in August. This occurrence is remarkably associated in point of time with the outbreak of this epidemic. On placing a boulder of chalk in the tidal valve at a high tide (similar to that which occurred in July), it was found that the tidal water backed up the streams and passed the water-works for three-quarters of an hour. Hence the water from the Ouse, into which the Cockshute flows, could have got up to the water-works. The Ouse receives all the sewage of Lewes, which flows into it above the point where the Cockshute joins it; and the greater portion of the sewage flows into the Ouse at low water. On Monday, July 13th, the hour during which the water was taken from the Cockshute corresponded exactly with the high water; in other words, with the hour during which the danger of excremental pollution was at its greatest. Dr. Thorne took a sample of water from the reservoir at the water-works, another at the head of the Cockshute, a third from the Cockshute during the time the tidal water was flowing past the inlet to the water-works. Dr. Dupré analysed these waters. He says: "There is a somewhat striking difference between tidal water and the other samples, due to the larger amount of the phosphoric acid in the tidal water, which," he adds, "is certainly derived from sewage." Dr. Thorne believes that, in the absence of any chemical works or any other source from which it might have escaped, it must have come from excrement which contains phosphates. From time to time there have been isolated cases of enteric fever in Lewes, and one or two of these occurred during May and June. There were, therefore, specifically diseased evacuations passing into the Ouse up to the month of July.

Viewing the whole circumstances, Dr. Thorne says it appears that the evidence as to water-pollution having caused this outbreak is overwhelmingly complete. It is not possible that a continued recurrence of a pollution of the water at the source may account for the whole outbreak. In August, a dam was put up to prevent the tide from reaching the inlet to the water-works, and the tidal valve was put into working order, and at one of the highest tides Dr. Thorne found that the tidal water did not come near the point of intake. Therefore, in the first place, owing to water having been drawn from the Cockshute into the company's works in July last, a pollution of town water accidentally took place at its source; and, enteric fever once prevalent in the town, its spread was mainly due to specifically fouled air, and probably to particles of specifically diseased evacuations being drawn into the water-mains, the latter being facilitated by the so-called intermittent method of supply existing in the town.

Having disposed of the subject of pollution, Dr. Thorne called attention to the large number of wells in the town, and points out that, although in this matter they had nothing to do with the spread of enteric fever, they were a source of danger. He found in some of them ammonia, probably arising from urine; and in one case, close to a deep well used as a source of water, he found another which had been turned into a cesspool. In view of the intensely poisonous nature of the evacuations of enteric fever patients, a very general system of disinfection must at once be organised by sanitary authorities, in order to prevent foul specifically diseased air from coming up into the houses; the sewers also should be periodically flushed and disinfected. I believe that very great results have attended these two systems of flushing and disinfectants. With a view of preventing the escape of foul air into the houses, additional ventilators have been placed in the sewers. Some people have cut off their houses from the sewers because of this outbreak of fever. But one of the greatest mistakes to be committed is to connect a house with a cesspool where there is a system of drainage that can be used. The danger is not in the use, but in the abuse of sewers. If people take pipes from the sewer into the interior of their houses, and rely upon a simple bell-trap to keep down the gas, they must take the consequences. There should be no inlet to the sewer from the interior of the house at all, except, of course, the soil-pipe, which should be carried above the roof of the house, giving free vent for the sewer-air. All other pipes should be carried to the outside of the house and cut off. People may then defy typhoid or any other injury which can possibly result from sewage-air. Dr. Thorne recommended, first, in view of the dangers which attend an intermittent supply of water, that a constant service be insured; secondly, people should not be allowed to drink filthy water from wells. Great precautions ought to be taken to ventilate the sewers. One of the principal points is to have means by which atmospheric air can get room so that the sewage-air may be diluted before coming out. When the system of sewerage has been placed in proper order, all cesspools ought to be abolished. In concluding, Dr. Thorne observed that the suggestions he made from day to day had been at once complied with and carried out, although some of them involved considerable labour, disorganisation of previous arrangements, and expense; and he is firmly convinced that the steps taken have been attended with the very best results.

THE CONJOINT SCHEME.

We referred lately to the difficulties which have been experienced by the College of Surgeons in reconciling the condition of its charter to the proposed arrangements for appointing examiners under the Conjoint Scheme. We are glad to learn that the Conjoint Committee of Reference, having had their difficulties laid before them, are prepared to adopt a scheme which will aid in their solution. These negotiations have now lasted five years; they were commenced by the Colleges of Surgeons and Physicians, London, and the Universities. The Apothecaries' Society have made great sacrifices to assist in attaining a simplification of the system of examinations for an uniform and complete minor qualification to practise. It would be unjust to the London College of Surgeons to doubt their loyalty in a matter of so great national importance, and in which they have long been deeply committed to a measure which the Government, the Medical Council, and the whole profession in England, agree to regard as one of pure utility. We trust, therefore, that matters at issue will be brought very speedily to a satisfactory issue. There has already been too much delay in this matter, and only the London College of Surgeons now stops the way.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

M. Chauffard and the Paris Medical Students.—Proposed Changes in the Academy of Medicine.—Causes and Nature of Scurvy.—Treatment of Phthisis.

THE School of Medicine, which was duly opened on the 3rd instant, is again closed, owing to the uproarious conduct of the students which took place under the following circumstances. For some time past, a report had got about that M. Wurtz, the highly esteemed Professor of Chemistry and Dean of the Faculty of Paris, had received intimation that for certain reasons he would have to resign the latter post. It turned out, however, that the rumour was entirely unfounded; but this did not satisfy the students, who felt convinced that some intrigue was going on at "Court" to make room for Professor Chauffard. Professor Wurtz is very popular, whereas Professor Chauffard is detested for his open and avowed sympathy for royalty and the Church, two states entirely ignored and despised by a certain section of the political community of France. Moreover, M. Chauffard has lately been the fortunate recipient of the highest office in the French Faculty—that of Inspector of the Medical Schools throughout France—a post held by the lamented Denonvilliers, and greatly coveted by the professors in general. I am not prepared to say how these appointments are bestowed; but what gives colour to the apparent unfairness of the selection in the present case is, Professor Chauffard's son is Secretary to the Minister of Public Instruction, and it is naturally supposed that this latter functionary lent himself to the machinations of nepotism. Be this as it may, M. Chauffard is a highly esteemed gentleman, and, without in any way detracting from the merits of the other candidates for the appointment in question, I would venture to say he is in all respects eminently qualified for the post.

When Professor Wurtz inaugurated his winter course of lectures, he was greeted with tremendous cheering, and this I am told was intended as a "manifestation" in his favour, and as a public protestation against the intrigues that were supposed to be carried on in order to have him removed from the deanship of the Faculty. On the following Monday, on the 9th instant, Professor Chauffard was, according to the notice posted up, to deliver his inaugural lecture; but, long before his arrival, the amphitheatre was full to the ceiling, and the students were evidently prepared to give him a loud reception. This they did in right good earnest, but the greeting was of a character quite the opposite of that given to Professor Wurtz, and was accompanied by hissing, yelling, and offensive epithets. M. Chauffard made many fruitless attempts to speak, as, notwithstanding the Dean's presence, and the laudable efforts made by the latter to restore order, he was overpowered by the shouts of the students, and obliged to leave the hall. The Dean then took measures to prevent the recurrence of such disgraceful scenes, but, on the appearance of M. Chauffard in the amphitheatre on the Wednesday following, he met with the same reception, and, being unable to proceed with his lecture, took the wise course of quitting the room and of leaving the students to reflect upon the folly of their ways. The day of retribution was to come, and, on the following morning, a notice was posted up, to the effect that the school was to be closed until December 1st. This is certainly a very severe and apparently unjust measure, inasmuch as it affects all, guilty or not guilty; but the punishment is only equal to the offence. There are generally a great many outsiders present on these occasions, as they come on purpose to swell the tumult; and, as it is difficult to single them out, the regular students have to stand the brunt of all. I think it time that the lectures at the School of Medicine be closed to the public, or rather, nobody ought to be allowed to attend them without special permission; and only when such measures are taken can the authorities expect to have more order.

A propos of M. Chauffard, you will have seen that he has just been distinguishing himself in another quarter, and, although the results of his scheme are not known, he does not seem happier here than at the School of Medicine. I allude to the Academy of Medicine. This body has lately been thrown into great consternation, owing to some radical changes that have been proposed in its present organisation. A committee was appointed to draw out some scheme by which the desired reform may be carried out; and M. Chauffard, the reporter, has drawn out a paper, in which he points out the necessity of a complete change in the constitution of the Academy. He proposes, in the first place, to reduce the number of sections from eleven to five, and the number of its members from one hundred to sixty. M. Chauffard's arguments were very much admired, but not altogether approved of. That the sections should be diminished all are unanimous, or nearly so; but the number (one hundred) should remain intact; and the argument in favour of the latter is, that, if the total of the members be reduced, the Academy would necessarily be composed of old superannuated men, to the exclusion of the younger element, necessary to give it fresh life and vigour, and consequently newer ideas than can be expected of men who are on the wane of life. The result of the report is not yet known, and indeed will not be for some time, as the subject is being warmly discussed in private council (*comité secret*).

In August last, M. Villemin read a paper before the Academy of Medicine on the Causes and Nature of Scurvy, in which he enunciated the theory that this affection is nearly always epidemic or endemic, and that, like typhus, the pest, yellow fever, etc., it is contagious, and is the result of a particular miasma; in fine, that it does not depend on atmospheric conditions, nor upon the quality of alimentation. This theory is so much at variance with the commonly received opinion, that it was naturally expected that it would not pass unchallenged. M. Le Roy de Méricourt, Principal Medical Officer of the French Navy, than whom no one could speak with greater authority on such a subject, undertook to refute M. Villemin's arguments. "If we analyse", said M. de Méricourt, "the different causes of scurvy, we shall be able to divide them into two distinct groups. We shall have, on the one hand, those in favour of the miasma-theory, and, on the other, those who believe that scurvy is brought on by depressing influences variously associated, the food being at the same time insufficient and unvaried, and consequently unfit to maintain the body in its normal condition". M. de Méricourt then went more fully into the various causes that are adduced as being capable of producing scurvy, such as sorrow, nostalgia, fatigue and idleness, dampness and cold, salt and unwholesome food; he cited numerous examples to show the part played by each of these causes in the etiology of the affection; but, he added, these causes are constantly associated with defective rations, particularly where there is an absence of fresh vegetables. He then summed up as follows. Scurvy is a malady of nutrition; it may be classed naturally by the side of chlorosis and anæmia, and consequently it is neither miasmatic nor contagious; it is brought on by certain known causes. The prophylaxis consists in maintaining the populations, the bodies of armies and navies, in the best possible condition compatible with social necessities and the exigencies of the service. It is particularly necessary to secure fresh provisions, and, in the absence of fresh vegetables, to supply the men with lime-juice. If, in spite of proper precautions, the disease break out, M. de Méricourt recommends the dissemination of the sick, not only with the view of removing them from the imaginary focus, but to place them in the best possible condition for the re-establishment of their health. Give a scorbutic patient comfortable lodgings, rest, a good table, and plenty of light and air, he will assuredly be restored to health, as the etiolated plant, when placed in the proper conditions for its existence. Professor Béhier, it is said, intends taking up the question at an early opportunity, which is looked forward to with great interest, as it is expected that he will throw much light on the subject. Other members have notified their intention to take part in the discussion, and M. Villemin has inscribed his name to reply, when his turn comes, to the arguments of M. Le Roy de Méricourt; but I am afraid this will not be for some time, as the reconstitution of the Academy is the all-absorbing topic for the moment.

At the Academy of Sciences, Dr. Pietra-Santa read a very interesting paper on the Rational Treatment of Pulmonary Phthisis, in which he sustained the doctrine of the curability of this terrible affection. According to this learned gentleman, pulmonary phthisis is essentially a general and constitutional affection, the result of a profound alteration in the functions of nutrition; it is, in fact, a disease of the blood. Consequently, there can be no panacea, no antidote, for this or any other diathetic affection; and for its cure the physician must put together, in an intelligent and rational manner, all the means that have been proved by clinical observation to be the most efficacious in this affection, which M. Pietra-Santa summed up as follows:—1. Hygienic measures to be strictly attended to throughout the different stages of the malady, such as pure air, good substantial food, tonics, moderate exercise, milk diet, etc.; 2. To utilise the changes effected in the organism by the mineral waters (sulphurous, arsenical, chlorides); 3. To take advantage of the salutary effects of change of climate by a residence in the temperate climates of the South of Europe in winter, and mountainous countries in summer; 4. To neutralise the morbid ferments engendered in the organism by purulent absorption, which takes place during the period of the *ramollissement* of the tuberculous matter. This, according to M. Pietra-Santa, is best effected by the administration of the alkaline and earthy hyposulphites and sulphites. 5. Complications which are inseparable from the affection ought to be treated according to the indications present.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE second ordinary meeting of the session will be held at the York House, Bath, on Thursday evening, December 3rd, at 7.30 P.M.; F. MASON, Esq., President.

R. S. FOWLER,
EDMUND C. BOARD, } *Honorary Secretaries.*

Bath, November 1874.

MIDLAND BRANCH.

A SPECIAL general meeting of this Branch will be held at Lincoln, on Friday, December 18th; T. SYMPSON, F.R.C.S., President; A. H. DOLMAN, M.R.C.S., President-elect.

Business.—To elect an Honorary Secretary and Treasurer, and eight ordinary Members of Council, according to Rules 7 and 8.

Papers will be read and other business transacted.

C. HARRISON, M.D., *Honorary Secretary.*

Lincoln, November 23rd, 1874.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

THE next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, December 10th, at 4.30 P.M.; H. T. LANCHESTER, M.D., in the Chair.

The following papers are promised. Dr. Moxon: On Paralytic Tremor as a Symptom. Dr. Walters: Cases of Naso-Pharyngeal Polypus; and Poisoning by Arsenic and Hydrocyanic Acid. Dr. Ilott: Clinical Cases and Specimens from Croydon General Hospital.

The Chairman kindly invites members and their friends to lunch at Park House, Croydon, at 2 P.M.

Dinner at 6 P.M., at the Greyhound Hotel; charge, 7s., exclusive of wine. JOHN H. GALTON, M.D., *Honorary Secretary.*

November 25th, 1874.

GLOUCESTERSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at Gloucester on Tuesday, November 17th. The officers for the coming year were elected.

Papers.—Dr. WASHBOURN (President) read a paper on the Advantages and Disadvantages of the (so-called) Higher Education of Women. Mr. T. S. ELLIS read a paper on the Influence of Muscular Action in the Prevention and Cure of Flat Foot.

Various new Sanitary Appliances were exhibited by Dr. Bond.

The members afterwards supped together at the Bell Hotel.

WEST SOMERSET BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, October 29th, at five o'clock. Fourteen members were present. H. W. RANDOLPH, Esq., President, in the Chair.

New Member.—John W. Norman, Esq., of Dunster, was elected a member of the Branch.

Whooping-Cough.—After dinner, the following question, as previously settled, was discussed—viz., "What is the best Treatment for Whooping-Cough?" The Secretary read written replies from Messrs. H. Adams, Hugh Norris, J. Prankerd, and E. Stephens, who were prevented from attending the meeting. After which, each member present, in answering the question, related his favourite plan of treatment, the same being based either upon experience only, or on some theory to fit the practice; and finally the Chairman summed up the discussion, which had proved very diversified and interesting.

Paper.—Dr. CORDWENT read a paper on "What is a Tonic?" The author began by stating that medicines termed "tonics" had most seductive attributes—some of which were clearly impossible, and others equivocal. Most writers on materia medica, even of the present day, stated in effect that they were medicines having the power of gradually increasing the tone of the muscular fibre when relaxed, and the vigour of the body when weakened by disease. If it were so, he did not see why medical men prescribed other medicines, because "to give tone to the muscular fibre when relaxed, and vigour to the body when weakened by disease, was, in its true meaning, the science of all medical treatment". It was difficult, he argued, to understand how a patient, weakened, for instance, by fever, wherein the weakness resulted from, or was concurrent with, much loss in several different tissues, and each embodying a variety of elements, how a drug could restore these elements, though it might, and sometimes did, unquestionably add a quotum of influence. It was said, also, that tonics stimulated the appetite and increased digestion; but appetite might be stimulated, or a sense of hunger induced, by many vegetable bitters, without the power of digestion being in the least increased. In many cases of debility, as especially after fevers, to stimulate the appetite beyond its normal return, must be, he thought, a very questionable advantage, when usually the eliminating functions were weakened almost in the ratio of the bodily attenuation. The kidneys, the skin, and lining membrane of the bowels had ordinarily suffered, hence the aptitude of surfeit, and the instinctive desire for changed food. That only could, in fact, be a tonic which added or caused to be added that of which the system failed, or subtracted or caused to be subtracted that which was offensive. Iron was a tonic in chlorosis, because it added to the blood an element, without sufficient of which, in convenient form, due oxygenation of tissue failed. So albumen was tonic to the man exhausted by muscular exercise; so water to one drained by perspiration; so, again, of two scrofulous patients—one thin and irritable, the other fat and phlegmatic—cod-liver oil was a tonic to the one, because supplying an element deficient, but to him already fat it would be an uncompensated abomination. He did not argue that only to be a tonic which supplied nutriment, or caused it to be supplied; and instanced quinine, which appeared to do great good in anæmia, by arresting that abnormal migration of cells from the capillaries, when, by its lowered condition, the serum of the blood had lost its healthy standard and affinity: but if quinine were not food, modern research, with that most refined of inquisitors the prism, had led, on very well sustained evidence, to the "supposition that man and all animals possessed in every part of the body the most characteristic peculiarity of the bark of the cinchona tree" (Bence Jones); and many diseases might arise from deficiency in the system of this "animal quinodine".

Future Business Arrangements.—A long debate followed, as to the desirableness or otherwise of continuing the present plan of having a question fixed by the Council on which each member would be expected to express his opinion at the ensuing meeting; and also, if a question be propounded, whether papers, of which due notice had been given, should not take precedence of such question. It was resolved, as to the first point, that, at the meetings of the Branch, the discussion of the subject proposed by the Council shall be general, and not obligatory on such member; and, as regards the second point, without coming to a definite resolution, it was arranged that the Secretary should endeavour to ascertain, from members intending to read papers, the titles of the papers, and give due notice of the same in his circular announcing the intended meeting, when the said papers would be brought forward.

SOUTHERN BRANCH: SOUTH HANTS DISTRICT.

A MEETING of the above District was held at the School of Science and Art, Portsmouth, on Tuesday, November 17th. Twenty-five members were present, and W. H. GARRINGTON, Esq., J.P., occupied the chair.

Papers, etc.—1. Inspector-General SMART, M.D., C.B., read a paper on the Secondary Epidemics of Cholera in Europe. A long discussion on the question of contagion followed.

2. 3. Dr. KEALY and Dr. AXFORD read papers on Rupture of the Uterus.

4. Dr. KNOTT exhibited a child labouring under hypospadias.

5. Mr. G. TURNER (Medical Officer of Health for Portsmouth) described a new and ready method of Estimating the Quantity of Urea in Urine.

6. Dr. WARD COUSINS brought a patient before the members labouring under Locomotor Ataxy with Amaurosis.

7. Dr. COUSINS exhibited: *a.* Photographs of a patient, taken before and after an operation for the removal of an Extensive Epithelioma, which involved both lips and the chin; *b.* Three Calculi recently removed by Lithotomy; two of them were very irregular, and covered with blunt-pointed processes; *c.* A large Stone, weighing eleven ounces, together with the bladder, removed from a patient, aged 60, who died of suppuration of the kidney. The lateral operation was performed after death, but the stone could not be extracted even with a very free division of the prostate. It was readily removed by the suprapubic method. The calculus completely filled the bladder. It was oblong and regular in form. The large diameter measured three inches and a-half, the short diameter three inches, and the circumference corresponding to the long diameter, ten inches. The right kidney was wholly disorganised and converted into an abscess. The ureters were

much dilated. The bladder was thickened in every part. The mucous membrane was superficially ulcerated, and covered with phosphatic deposit. About an inch behind the orifice of either ureter, the internal surface of the bladder was marked with a round opening, leading into a large sacculus. These sacculi were equal in size, and each was capable of holding three or four ounces of urine.

The next District Meeting will be held at Portsmouth on December 15th.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 24TH, 1874.

C. J. B. WILLIAMS, M.D., F.R.S., President, in the Chair.

CASES OF SYPHILITIC REINFECTION, WITH REMARKS. BY GEORGE G. GASCOYEN, F.R.C.S.ENG.

IN this paper were given the details of eleven cases of syphilitic reinfection which had passed under the observation of the author, seven of which he had himself treated on both occasions. Ten of them had previously had general syphilis, and in six of these constitutional symptoms again manifested themselves; while, in four, an indurated chancre only was the evidence of a second contamination. The remaining case was one of well marked indurated chancre with inguinal adenopathy for the first disease, but the reinfection showed itself as an indurated chancre, followed by tertiary lesions, without the intervention of any of the secondary affections. The importance of these cases was dwelt upon, as evidence that the diathesis created by syphilis may completely wear out and leave the individual free from all trace of his former attack, so that he may become the parent of healthy offspring, and also liable to contract again the disease if exposed to contagion. That examples of syphilitic reinfection cannot be so rare as is commonly supposed, was shown by a table, in which sixty cases were collected, from various sources; and, as in most of them, as well as in those which formed the subject of the communication, a full mercurial treatment had been employed, they were considered to afford strong testimony to the value of the drug, not only as a remedial, but actually as a *curative*, agent. The author endeavoured to show from these cases what is the real meaning of the induration which commonly accompanies an infecting chancre. He did not regard it as one of the strictly local processes attendant upon, or essential to the development of, such a sore, but as the first of the so-called secondary symptoms—the earliest expression of a constitutional contamination—which usually manifests itself at the point of inoculation, and which is as pathognomonic of a general taint as any of the affections admitted to be secondary. In most of the cases related, the sore followed at once upon intercourse; and it was urged that a period of incubation is by no means necessary to the evolution of an indurated chancre. Much difference of opinion exists on this point, and the author considered that the presence or absence of incubation is determined by the nature of the lesions whence the chancre has been derived, whether from an infecting sore still suppurating and in full local activity, or from an indurated chancre which has become indolent and ceased to form pus, or from some other constitutional affection. In the former case, which is an example of *primary syphilitic* inoculation, no incubation preceded the pustular origin of the chancre; but, in the latter, which constitutes an example of *secondary syphilitic* inoculation, a period of incubation always precedes the papular development of the resulting sore; and, as the phenomena which have been observed to follow the inoculation of an indurated sore, are precisely the same as those which attend the successful inoculation of mucous tubercles, or of syphilitic blood, in a person previously healthy, this fact was considered to afford an additional reason for placing a non-suppurating indurated chancre in the category of secondary syphilitic accidents. Some of these cases of reinfection, the author observed, threw light upon the position which the more remote lesions following upon syphilis really occupy with regard to the disease. Six of the cases recorded occurred in persons suffering at the same time from tertiary syphilis; and it was sought from the circumstance to show that some of the more advanced symptoms must be the sequelæ of a past, and not the manifestations of a still existent disease. For, since it is impossible to believe that two distinct attacks of general syphilis can take place in the same individual at the same time, these later manifestations, characterised by cachexia, ulceration, etc., which existed when the second contagion took place, must be due to the injury inflicted upon the economy by a previous disease; and the fact that a fresh infection can take place under such circumstances, would seem to be convincing proof of the accuracy of such an assumption.

LIBRARY OF THE UNIVERSITY OF ILLINOIS

Mr. HENRY LEE regarded Mr. Gascoyen's paper as a highly valuable one. His own experience entirely agreed with what Mr. Gascoyen had stated as to the reinoculability of syphilis on a person who had already had the disease. He was rather surprised to hear that there were so few cases in English literature. He thought that he had published two cases where reinfection had occurred. In cases of reinfection, the character of the sore differed from that produced in a previously healthy subject; it was small, and ran through its course quickly. The period of incubation was not so long as in an original sore; the glands were not so definitely enlarged, and suppuration occurred. The secondary symptoms after reinfection were of the same character as those following original infection, but were milder, and yielded more readily to treatment. He could not draw a distinct line at the period at which a person having had syphilis could be said to be free from the disease: the passing off of the influence took place gradually, like, for instance, that of vaccination. He had treated a patient for syphilis, followed by slight secondary eruption, who, seventeen years afterwards, was reinfected. On the second occasion there was a small pimple, with enlarged and suppurative glands, followed lately by the development of well defined copper-coloured blotches. He had also seen a case where there was general enlargement and suppuration of the glands, and which was probably one of reinfection. According to Mr. Gascoyen, induration was essentially a constitutional symptom; hence, if there were no induration, there was no constitutional affection. The results of inoculation after reinfection did not seem to be the same as those of inoculation from a soft sore. He had lately seen some inoculations by Mr. Morgan of Dublin, in which the cicatrix was raised rather than depressed.—Mr. ACTON said that there was no doubt that reinfection could take place; but he could not understand that this occurred so often as was stated. He had not seen more than ten or eleven cases. He was often called to cases of supposed reinfection; but hardness, not necessarily the result of reinfection, might come on in the site of a primary sore years after the first infection. He had met with a case where a man, supposed to have recovered from syphilis for ten years, again presented symptoms of the disease. Such a case, according to Mr. Gascoyen, if induration were present, would be regarded as one of reinfection. It was an important practical observation, that in cases of reinfection the secondary symptoms were recovered from almost with the mere use of tonics, without mercury. With regard to inoculation from secondary syphilis, he thought that it was a question of great difficulty. Persons having secondary symptoms cohabited for months without producing infection. He had seen attempts made to inoculate secondary syphilis; but the process was a difficult one. It was said that it was very easy to prove that reinfection occurred frequently. Was he to understand that, in order to prove this, surgeons had undertaken the responsibility of inoculating healthy persons? Unless this were done, there was a want of data that could be depended on.—Dr. DRYSDALE had been long on the look-out for cases of reinfection; but he had only met with one case, in which a gentleman who had a primary sore followed by sore-throat and eruption in 1861, having recovered, was reinfected in 1870. He did not think that induration was a sufficient sign of reinfection; for tertiary induration might be mistaken for that of a primary sore, and he believed that many authors had probably made this mistake. He did not agree with Mr. Hutchinson's view that the tertiary symptoms were not really syphilitic. He thought that, to prove that two attacks of syphilis had occurred in the same person, it would be necessary to show that there had been roseola on both occasions. Such writings as those of Mr. Gascoyen tended to shake the dualistic theory of syphilis, which he believed correct. He would ask Mr. Gascoyen whether syphilitic men ever begot syphilitic children without first infecting the mother. Inoculation from secondary manifestations had always resulted in syphilis. Infection had in some cases taken place by the mouth. Prostitutes must sometimes infect by secondary symptoms; it was scarcely possible that there could be sufficient primary syphilis among them to account for all the cases of infection.—Dr. THIN said that the influence of iodide of potassium in tertiary syphilis indicated that it was not merely due to the wearing down of the constitution.—Mr. TROTTER said that his experience in a regiment for twenty years confirmed the existence of reinfection. It had several times occurred that a man had a hard chancre, and recovered under treatment; and that, after remaining well for five, six, or seven years, he became reinfected. In the interval, he had been examined at the regular inspections, so that any sign of disease would have been detected. He was rather surprised that so few cases of the kind were recorded.—Mr. MYERS had for fifteen years looked on reinfection as of common occurrence. He had also noticed cases where, after the healing of an indurated sore, induration was again produced by some irritation, without true infection; in one case, this had occurred three times. He regarded induration as local rather than constitutional.—Mr. GASCOYEN replied.

Subcutaneous Injection.—Dr. SANSOM showed some discs of alkaloids with gelatine which had been prepared for him by Messrs. Savory and Moore. They were dissolved for subcutaneous injection, and were intended to obviate the difficulty attending the keeping of solutions.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 13TH, 1874.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

Two Cases of Reflected Irritation. I. *Unilateral Trismus* (*Traumatic*). Mr. R. BARWELL said that, believing all cases of spasmodic and convulsive disease clearly traceable to some local cause were of clinical importance, he had brought these two together before the notice of the Society; they had occurred simultaneously in his practice at Charing Cross Hospital. Edward Davison, aged 15, was admitted under Mr. Barwell's care with a scalp-wound, laying bare a large part of the left temporal fascia, and the left side of the occipito-frontalis tendon. In five days suppuration was going on, and there was some phlegmon of that side of the head and face; after three days more the cervical glands were swollen. On the thirteenth day pain was felt on the left side of the jaw; phlegmon had subsided. On the following day, the patient was quite unable to open the jaw, and the left corner of the mouth and cheek were drawn backwards and upwards, giving that side the trismic expression. The left masseter muscle was very hard and contracted; the right, soft and flaccid. The temporal on the left side seemed also contracted, but the wound, etc., prevented perfect verification of this fact. During the rest of July and the first week in August, this condition continued. On August 9th, the wound being nearly healed, the contraction began to abate; on the 18th, he could open his mouth, probably to the full extent, but always to the left side. In the beginning of September he was quite able to open the jaw, though still with deviation to the left. Unilateral trismus did not appear to have been hitherto observed, and Mr. Barwell at first thought closure of the jaw might be due to swollen glands; but examination, as also the sequel of the case, disproved this. It was remarkable that, during sleep, the jaw fell open. Several tests of the reality of the symptoms were used, with the result of proving that they were not feigned.

Dr. ALTHAUS observed that unilateral trismus was certainly rare.—Dr. SOUTHEY said that the fact of the muscles being relaxed during sleep was contrary to ordinary experience in such cases with children.—Dr. MOXON inquired if the trismus was on the same side as the injury, and whether the muscles were swollen; and asked if inflammatory swelling of the temporal muscle and the consequent tenderness would not render difficult the opening of the jaw.—Mr. BARWELL, in reply, remarked that the fact of the jaw falling open during sleep was peculiar. The case was real, for the boy was semi-starved from being unable to open the jaw, and therefore had nothing to gain by deception. The masseter muscle was contracted and hard; the temporal less contracted; whilst the internal and external pterygoid muscles seemed also to be partly affected. But examination of each muscle separately was difficult.

II. *Severe Epilepsy cured by Excision of a Neuroma.*—Edward J., aged 60, an old soldier, was admitted under Mr. Barwell's care, July 18th, 1874, with wound of the radial artery. The man had lost his arm in India, on May 7th, 1846. Two years afterwards, epilepsy set in, and had gradually become worse, especially of late. On examining the stump, a neuroma was found, any pressure on which produced a fit. It was desirable (as the hospital was being painted, etc.) to postpone an operation, but the fits became so frequent and prolonged, that at last there was barely a quarter of an hour between them, except during sleep. On August 7th, Mr. Barwell cut down and isolated the neuroma; he then forcibly stretched the nerves of the brachial plexus, and removed the growth. The wound healed with little suppuration, and the man was discharged on August 18th. He was last seen on October 24th. Since the operation, he had had no epileptic fit, and was much improved in appearance and intellect. Microscopic examination showed the tumours to be true neuromata.

Dr. ALTHAUS inquired the character of the seizure. Was the patient unconscious; the tongue bitten? Did an aura occur? According to Schrœder van der Kolk, such seizures from excentric irritation were due to dilatation; but, according to Kussmaul and Tenner, to contraction of the blood-vessels of the pia mater around the medulla. Was the case treated medicinally?—Mr. B. CARTER related the case of a woman aged 40, who had lost the sight of her left eye when nine years old. The eye, two years before she was last seen, had suppurated and been opened. A glass eye was then supplied, when she became twitchy, and finally epileptic, having a seizure about once a week. The eye was removed under chloroform; the orbit was plugged with a sponge; and, upon removal of the sponge in two hours, an epileptic fit and the usual subsequent insensibility occurred; but she gradually recovered, and, after six months, was found to be quite well. Examination of the diseased eyeball revealed no foreign body or other obvious cause for the convulsions.—Mr. M. BAKER said that Mr. Holden had recorded an interesting case of the kind in *St. Bartholomew's Hospital Reports.* A lad had a tumour near the scapulæ, at the median line over the spine; and he always had opisthotonos, lasting for two or three minutes at a time, when it was touched; but only then. Once, under chloroform, from the tumour being touched, opisthotonos recurred directly. The tumour, which was composed of fat and fibrous tissue, and closely adherent to the skin, was excised, and the lad was immediately cured.—Dr. J. W. OGLE had had a patient in whom an epileptic fit could be produced by the touching of certain parts of the body. A case had been recorded in which pressure on the course of the nerve in which was the aura, upon the occurrence of the aura, would stop the further development of the epileptic attack. Mr. Barwell's case would have been a good one for testing the value of such treatment.—Mr. BARWELL said that the fits, although they had lasted twenty-five years, yet ceased directly after the operation. He might have stretched the nerves about the tumour at the operation, as had been done by Billroth and by Mr. Callender; but, for various reasons, he preferred excision. Occasionally, his patient had had a distinct aura; at other times, the fit was ushered in with pain about the tumour. When first he had had the fits, the man had bitten his tongue. Twice, when the aura had occurred, Mr. Barwell had compressed the nerves above the tumour without any apparent effect.

Case of Recovery from Melancholia after Four Years' Refusal of Food and Obstinate Silence.—Dr. BUZZARD related the case of a gentleman, aged 40, who, after increasing symptoms of mental depression, fell into a profound state of melancholia in June 1870. He was sent to Dr. Stilwell's Asylum, at Moorcroft, where he remained until June last. During his stay, he lay in a complete state of inertness, rarely using a muscle voluntarily, except to clench his jaws when he was going to be fed, and to close his eyelids and turn up the globes when efforts were made to examine his eyes. He would frown, too, and groan and grunt inarticulately when anything was said or done to him. For four years, he was forcibly fed, dressed, and cared for, and during that time he did not speak. Only liquid and semi-solid food could be given to him, and of this large quantities were administered; but he rejected a considerable portion of each meal. By perseverance, however, in feeding, his life was sustained; but his weight fell from 11 st. 10 lbs. to an average of 7½ st., and on one occasion to less than 7 st. In May last, he suddenly woke up, as it were, into social life, spoke, ate, and, although scarcely able to move at first, rapidly regained health, weight, and complete mental soundness, in which condition he now remained. Asked to explain his behaviour, he said that he was under a profound sense of personal degradation. He felt that he was growing into a kind of monster unfit to live or even to be seen; that the birds on the trees were mocking at him, and that he was surrounded by devils. Dr. Buzzard said that the course and mode of termination of the case made it evident that the lesion was not of a destructive character, but must have been "functional" or "dynamic". He suggested that possibly in such cases, if a little less regard were paid to the comfort of the patients, they might be provoked into throwing off their delusions sooner. It was also worth considering whether means could not be found to bring the influence of strong mental emotion to bear upon persons afflicted in this remarkable way.

Hypochondriasis, with Delusions as to Inability to take Food.—Sir WILLIAM GULL read notes of the case. The patient, a clergyman, aged 61, was first seen on June 15th, 1869. Up to that time, he had been performing his clerical duties and also managing his estate, which was large; but, for two years previously, his manner had been altered; he had become more reserved, irritable, and desponding. When he first came under observation, there was extreme despondency, agitation, and abstracted manner, with a fixed delusion that he was ruined. In the course of a few days, he began to refuse food or to answer questions. He also had delusions about his urine, asserting that the ordinary vessel was not large enough to contain all he made, and a horror of going to bed, saying with earnestness that, if his bowels acted in the night, the whole place would be destroyed by the quantity passed. Subsequently, the refusal to take food became so determined, that he was obliged to be fed with the stomach-pump, and this was done night and day every four hours, and had been continued up to the present time. His diet consisted of turtle-soup, gruel, beef-tea, eggs, and milk, with a liberal allowance of stimulants. Under this treatment, he improved at first, and gained flesh; he slept well—on an average, five hours. His bowels were torpid, and he required an injection every third day. About a year after the commencement of his attack, there was marked sponginess of the gums, which was relieved, however, by the administration of lime-juice with his food. Two years and a half after his attack, there was distinct emaciation; the patient became restless and anxious, with tympanitic abdomen, offensive breath, and small quick pulse. This appeared to be due to great accumulation in the colon, which was corrected by the use of the long tube and injections of oil and turpentine. Subsequently, the inactivity of the colon was overcome by the addition of olive oil to his food and the occasional exhibition of a drop of croton oil. This obstinate refusal to take food had continued up to the present date. A report made on November 13th, 1874, stated that he had been fed by the stomach-pump 8,700 times, without injury to the fauces. It also stated that "the mind of the patient had considerably improved during the last six months, he being now able to sustain a continued conversation, and, with the exception of his delusions, he was able to talk on all subjects rationally. He appeared to have no bodily ailment; he was looking fresh and healthy, and the breath was sweet."

Sir **William Gull** thought that in both cases there was a large element of hypochondriasis: that is, a condition in which the patient had wrong notions about the functions of his body, so that sometimes he might even think he was dead. This clergyman had pure hypochondriasis; he could do nothing with his legs or with his tongue. All the physicians and psychologists who had first seen the patient—Sir William Gull amongst the number—had said that he had general paralysis, and would die within a few years. He had, however, no general paralysis, but was now gradually recovering. Dr. Buzzard thought that physic might some day come to cure the disease. He (Sir William) thought that drugs were as far from the condition of the case as that audience from the furthest bounds of space.—Dr. J. W. **Ogle** had seen Sir William Gull's patient fed. He came to the couch, was fed in less than a minute, and then quietly walked away. He could liken it to nothing so well as to the feeding of the ducks at the Jardin d'Acclimatation at Paris.—Dr. **Blandford** said that cases of profound melancholia recovered sometimes after very prolonged duration. A lady had recovered perfectly after an illness of eight years, during which she had tried continually to commit suicide, and had frequently hurt herself much. Did not the difference between melancholia and hypochondriasis consist in the fact that melancholics took up delusions almost as it were by accident about the soul, body, property, etc.? Sometimes patients seemed certainly to like the mode of feeding with the œsophageal tube, and to like the food to be given in that way rather than with a spoon; therefore, perhaps, if it were to be given by the spoon, they might sooner recover. Once a patient of his own had been fed with a new tube, and, disliking it, he never again required the tube to be used, but began henceforth to eat naturally.—Dr. **Althaus** asked whether a therapeutic measure had not been discovered which held out hopes of benefit for such patients. Several cases treated by the constant current through the brain had been relieved and cured. The nervous system could be largely influenced at will by electricity.—Dr. **Buzzard** had been rather disappointed by Sir W. Gull's remarks. He had invoked his divinity, and it had failed him; for, when he asked for bread, it had only given him a stone in the shape of another name for the disease. Here was a man under strong delusions, brought thereby to death's door: if that were not a case of mental insanity, what was? He was insane, and his insanity would have killed him but for outside help. Perhaps the influence of some strong emotion might be found to cure patients of that class. Had the patient been nearer to himself, he (Dr. Buzzard) would certainly have tried the constant current.—Sir **William Gull** certainly thought a counter-emotion might have cured the patient. How could it have done so, had he been insane? Further, after his recovery, Dr. Buzzard's patient gave a good account of his feelings and symptoms. Had he been insane, how could he have done that? He was not insane, but a hypochondriac. The man's mind was clear from first to last, and then an emotion had cured him. Perhaps the constant current might have cured him; but it must not be forgotten that electrical and nerve force are no more related than mechanical and nerve force. Perhaps flagellation might have cured. The state of mind in which melancholia and hypochondriasis intermingled might be treated at home; but melancholia, especially when there was a tendency to suicide, required the safest care which a hospital could afford. Hypochondriacs did not commit suicide, except in the negative way by refusing to take food, etc.

CORRESPONDENCE.

THE LIVERPOOL CORRESPONDENT AND THE CONTAGIOUS DISEASES ACTS.

Sir,—I can feel neither surprised nor disposed to complain, that my remarks upon Dr. Nevins's paper have not met with unanimous approval in Liverpool. However much I may personally regret to have fallen under the displeasure of two most estimable correspondents, it is a great satisfaction to me to find that, in the discharge of a public duty, those who differ so widely from me have failed to detect any misstatements of facts in my report. And what is still more gratifying is the acknowledgment, on their part, that, in discussing a somewhat difficult and delicate subject, I have—although "going *almost as far* as to the suggestion of disingenuousness", and "*verging* upon personality and the imputation of unworthy motives"—nevertheless been so fortunate as to avoid the actual transgression of the bounds of fair criticism.

I have to thank Mr. Hakes for republishing the very sentence in his report upon which he would lay most emphasis and which he would desire to be most widely circulated. Jealous of my reputation as a faithful chronicler of passing events and opinions, in the matter in question I await with equanimity, and even with confidence, the verdict of mature professional judgment. I would ask permission to suggest to Dr. Nevins that, having exhausted the Army and Navy Reports up to 1872, and having searched the records of every station throughout the world over which the British flag floats triumphant, he would now turn his attention to what is going on at home, and give the best answer he can to the stubborn facts set forth in the latest official reports of those who are responsible for the operation of the Acts in this country. A summary of these he will find almost side by side with his own letter in your columns; he may read them at length in the Report of the Commissioner of Metropolitan Police for the year 1873. I am, etc.,

November 23rd, 1874. Your Liverpool Correspondent.

MR. STANSFELD, MR. MYERS, AND THE CONTAGIOUS DISEASES ACTS.

Sir,—In a recent number of your Journal, there was a letter from Mr. Myers commenting upon Mr. Stansfeld's speech in Bristol, and adducing his own experience with his battalion at Windsor, and contrasting it with the condition of London as regards venereal diseases. He also made some reference to Mr. Stansfeld's statistics, and recommended "impartial investigation" to him. As I have been engaged for some time in preparing a statement for the Home Secretary, the Right Honourable Mr. Cross, on the sanitary results of the Contagious Diseases Acts in the Army and Navy, my attention was directed to Mr. Myers' letter, and I beg to forward the following comments upon it.

Mr. Myers speaks of the great reduction in the number of cases of venereal disease during the first *two months* in Windsor, and the further reduction, amounting almost to immunity from disease, in the next *three months*, and then asks if words can speak more strongly than these simple figures in favour of the Contagious Diseases Acts, which are in operation in Windsor, but not in London.

Now, on turning to the latest *Army Medical Report*—that for 1871—(page 8), we find the following account of venereal sores in Windsor for the last five years.

Windsor.—*Admissions into Hospital per* 1,000 *of Mean Strength for Venereal Sores.*—1867: ratio, 58. In 1868, the Contagious Diseases Act was brought into operation, and the ratio rose to 136 per 1,000. In 1869, it was 93; in 1870, it was 67; and in 1871, it was 78, or 20 per 1,000 higher than it was the year before the Act was introduced into Windsor. Thus we see that an experience of *five months* with a small number of soldiers appeared to tell in favour of the Act, whilst an experience of *five years* with the whole of the forces stationed in that town tells most fatally against it—disease having more than doubled immediately after the Act was put in force, and remaining still one-third higher than before the Act was in use. And this, it will be observed, is in venereal sores, the special form of disease for which alone the Acts are now praised by their advocates.

This letter of Mr. Myers opens up, however, a far more extensive and important question than merely whether some one protected town is better or worse than some unprotected one for a short time. The question which is brought up incidentally by Mr. Myers' particular case is, in fact, what value is to be attached to the reports of individual army and navy surgeons upon the operation of these Acts. No one can doubt

Mr. Myers' veracity, and it is impossible to read his letter without being impressed by his earnestness and the *bona fides* of his statements; and yet, when they are brought to the touchstone of a much wider experience, they prove to be fallacies and misleading, *because they are based upon a far too limited area both in time and number of men;* and this is a fallacy which inevitably lessens the value of most of the reports, for the troops are generally moved from year to year, and, therefore, few medical officers have more than a year's experience in any one place; and the same remark applies to the navy. The consequence is that, reading the army and navy reports consecutively, this feature is very striking; for strongly favourable opinions are continually expressed upon an experience of two or three months (in one case of less than three *weeks*) and seldom extending so far as a year. Now, the fluctuations of disease from year to year are so great both in the army and navy, and and both in protected and unprotected places, that an experience of months is perfectly worthless, except as contributing towards a whole. An experience of a year is quite as likely as not to be contradicted by the next year, and nothing short of an experience of several years can furnish any reliable information as to its condition of disease in any particular place, or the effect of the presence or absence of the Contagious Diseases Acts. I will now give an illustration for several *years* from a protected and an unprotected town from the army reports, and from a protected and an unprotected station from the navy reports; and, lastly, an illustration of the *quarterly* fluctuations in Portsmouth from the Navy List Health Reports for 1870.

Manchester (unprotected).—1860: Ratio per 1,000 was 289, rose to 487, fell to 452, fell to 327, fell to 311, rose to 381, rose to 570, fell to 381.

Shorncliffe.—Ratio, 82, fell to 68, fell to 57, fell to 42. Act applied: rose to 77, fell to 61, rose to 101, fell to 31.

Mediterranean (protected).—Venereal sores: 1866: Ratio 24, then up to 30, up to 47, down to 38, down to 36, down to 34, up to 53.

Australia (unprotected).—1866: Ratio 32, up to 42, down to 22, down to 18, down to 9, up to 13, up to 39.

Quarterly fluctuations.—Navy, 1870, p. 22: On board the *Excellent*, in Portsmouth, and under the Act the whole time: 1868, 1869, 1879, first quarter et subs., 15, 8, 5, 6, 3, 6, 13, 16, 17, 3, 2, 1.

The whole subject of these Acts as sanitary measures is, however, considered more fully in the statement for the Home Secretary, to which I have alluded above, a copy of which I have now the pleasure of forwarding to you.

I am, etc., J. Birkbeck Nevins, M.D.Lond.

Liverpool, November 1874.

⁂ To refute the statements contained in the letter of Mr. Myers, Surgeon to the Coldstream Guards, in the Journal for October 31st, Dr. Nevins puts forward a quotation from the Army Medical Returns that has no relation to Mr. Myers' statement, for it refers to something very different. Mr. Myers, whose battalion is alternately quartered in Windsor and in the metropolis, in his letter, compared the amount of venereal disease contracted by the soldiers under his care while quartered in the metropolis with the amount contracted when at Windsor. In the metropolis the Contagious Diseases Acts are not in force; at Windsor they have been in operation since 1868. The battalion arrived at Windsor on April 26th last, carrying with it seventeen cases of primary syphilis and two of gonorrhœa. During the next two months, fourteen more of primary syphilis and thirteen of gonorrhœa were sent to hospital, of which only one of the primary syphilis and only two of the gonorrhœa were contracted at Windsor. In the remainder of the stay at Windsor, four more cases were admitted, all being charged against that district. This made nineteen cases imported on the arrival of the corps, twenty-four others imported during the early part of its sojourn at Windsor, but only seven due in five months to contagion within the district; that is, forty-three to London and seven to Windsor. The battalion then returned to London. Dr. Nevins maintains that this experience extends over too short a time to be trustworthy, overlooking Mr. Myers' further statement that, though this is a marked example of the much greater freedom of the Guards from venereal disease in the protected district of Windsor than when in London, "it is only one of an ever recurring series on a change of quarters from London to Windsor". Figures supporting this assertion have in previous years been published both in this Journal and in a contemporary. It lies now with Dr. Nevins to prove that this great disparity between Windsor and London, or something approaching to it, existed when Windsor was "unprotected", as London still is. This he has not done; but, to show that great fluctuations are common, which no one familiar with returns of disease doubts, Dr. Nevins quotes the entries for venereal sore at Windsor during the years 1867 to 1871 inclusive, wishing us to infer the great difference between London and Windsor to be an accidental fluctuation. However, they do not apply to Mr. Myers. They simply show the annual ratios of the men from *several* corps sent to hospital for venereal sore at Windsor during a term of years, without distinguishing between the cases contracted in Windsor and those imported into the town when fresh troops came in. Mr. Myers' figures deal only with the health of a *single* corps in two different stations, one under, the other not under, the Acts. Statistics so essentially different do not affect each other. The evidence of Mr. Myers has another important bearing. Set in juxtaposition with the entries in the statistical tables, it helps to explain why the entries for Windsor remain so high. It would appear that by far the greater part of the disease attributed to Windsor really belongs to an unprotected station, London, being contracted there and carried to Windsor by the frequent changes of the Guards and Household Cavalry. Dr. Nevins also disparages the testimony of the army and navy surgeons whose personal experience is quoted in the blue books, on the score of the limited opportunities for observation these gentlemen enjoy while moving from place to place with their regiments or ships. This is probably true if they attempt to show the general effect of the Acts; but their migration from districts under the Acts to others not under the Acts enables them to do what Mr. Myers has done, and furthermore to distinguish between the quality of the disease contracted in the protected districts and that of the unprotected districts better, perhaps, than those who only study statistical tables. Indeed, the tables corroborate their evidence in this respect, for in the protected districts the ratio of constantly sick from venereal sore is just *one half* that in the unprotected districts. For many reasons, we have no reliance on Dr. Nevins' comparison between Manchester and Shorncliffe, or between the Mediterranean and Australian ports, even were it properly made; but, if Dr. Nevins will again refer to the official returns, he will find he has taken for Manchester the ratios of venereal disease of *all kinds*, and for Shorncliffe the ratios of primary venereal sore only.

MEDICAL NEWS.

University of London.—Second M.B. Examination. Examination for Honours.—Medicine.

First Class.

Gould, Alfred Pearce (Scholarship and Gold Medal), University College
Duncan, Andrew (Gold Medal), King's College
Eastes, Thomas, Guy's Hospital
Duncan, Peter Thomas, University College

Second Class.

Sturge, William Allen, University College
Rigby, James Arthur, Guy's Hospital
Crocker, Henry Radcliffe, University College

Obstetric Medicine.

First Class.

Gould, Alfred Pearce (Scholarship and Gold Medal), University College
Duncan, Andrew (Gold Medal), King's College
Eastes, Thomas, Guy's Hospital

Second Class.

Rigby, James Arthur, Guy's Hospital
Duncan, Peter Thomas, University College
Sturge, William Allen, University College
Branfoot, Henry Seymour, Guy's Hospital }
Crocker, Henry Radcliffe, University College } equal

Third Class.

Nicholson, Arthur, King's College
Harris, Vincent Dormer, St. Bartholomew's Hospital }
Whittle, Edward George, University College } equal

Forensic Medicine.

First Class.

Crocker, Henry Radcliffe (Scholarship and Gold Medal), University College
Gould, Alfred Pearce (Gold Medal), University College
Duncan, Peter Thomas, University College

Second Class.

Duncan, Andrew, King's College
Eastes, Thomas, Guy's Hospital

Royal College of Surgeons of England.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted members of the College last week.

Anderson, William S., M.B.Glasg., Middlesborough
Barker, Henry Martyn, Bedford
Barlow, John, Manchester
Bate. George, L.S.A., Camelford, Cornwall
Bedford, Charles F., Sleaford
Blackmore, George H., Hammersmith
Brummitt, Robert, L.S.A., Banbury, Oxon
Buckell, Ernest H., Chichester
Bull, William H., Hammersmith
Calcott, James T., Newcastle-on-Tyne
Carey, John T., Guernsey
Carr, William Ward, M.D., Lee, Kent
Chadwick, Alfred, Manchester

Cobb, Robert, Rochester
Collet, Golding Bird, Worthing
Derington, John M., Leicester
Dryland, William, Dulwich
Eastall, Henry F., L.S.A., Blackheath
Ellerton, John F. H., Huddersfield
Ferrier, John C., Dublin
Fox, Richard H., L.S.A., Stoke Newington
Gibb, Robert C., Jamaica
Gill, Edmund R., L.R.C.P.Edin., Torquay
Gravely, William Holmwood, Horsham
Hart, Philip Neville, M.B., Catton Vicarage, Norwich
Herapath, Charles K. C., Bristol
Hoffmeister, John Bates, Cowes
Johnston, Wingate K., Anerley, Surrey
Joseph, Sidney W. J., St. Leonards
Kebbell, William, Brighton
Lamb, William, L.R.C.P.Lond., Northampton
M'Creevy, John A., M.D., New York
Mackenzie, John K., L.R C.P.Edin., Bristol
Maples, Reginald, Spalding, Lincolnshire
Ockendon, Arthur John, Brighton
Parkinson, John Rendall, Preston
Phillips, Arthur Owen H., Newcastle-Emlyn
Potts, Edward, L.S.A., Birmingham
Powell, Harold M., L.S.A., Wandsworth, Surrey
Poynder, George F., Brandon, Norfolk
Roberts, Theophilus L , Alfreton
Roe, Frederic L., Eccles, Lancashire
Ross, William Abraham, Alderney
Rossiter, George F., L.S.A., Taunton
Rygate, Brougham R., L.S.A., Cannon Street Road
Sandiford, Robert F., L.R.C.P.Edin., New Ormond Street
Scatliff, John M. E., M.B., Brighton
Sheehy, William H. P., Claremont Square
Smith, Herbert N., L.R.C.P.Lond., Brighton
Squire, William, L.S.A., Hanwell
Stelfox, John B., Leigh, Lancashire
Stewart, William R. H., Weymouth Street
Swift, William J. C., Ely, Cambridgeshire
Symonds, Horatio P., L.S.A., Oxford
Taylor, Daniel P. H., Sierra Leone
Thomas, George H. W., Stoke, Plymouth
Tomlin, Robert F., L.S.A., Devonport
Treharne, John L., L.S.A., Weston-super-Mare
Treves, Edward, King Edward's Road
Vereo, Joseph Cooke, Chelsea
Waller, William B., L.S.A., Sydenham
Wandby, William, Mile End Road
Whitworth, Edward, St. Agnes, Cornwall

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 19th, 1874.

Johnson, Chadd Moore, Lancaster
Lingard, Alfred, Derby
Nicholls, Frederick, Cornwall Terrace, Stockwell
Rawlings, Alfred, Plympton, Devon
Reynolds, Edward Osmund, Appledore, North Devon
Treves, Frederick, King Edward Road, South Hackney
Young, Arthur, Hawkhurst, Kent

The following gentlemen also on the same day passed their primary professional examination.

Badcock, George Sainthill, Charing Cross Hospital
Champneys, Henry Lawrence, Guy's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABBEYLEIX UNION—Apothecary for the Workhouse. Salary, £30 per annum.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon: £80 per annum, board and residence. Applications on or before December 14th.

AXBRIDGE UNION—Medical Officer for the Second District. Salary, £30 per annum.

BRIDGEWATER INFIRMARY—Dispenser. Salary, £20 per annum, with board, lodging, and washing. Applications to be sent to Mr. E. Lilley, the Honorary Secretary, Bridgewater.

BRISTOL DISPENSARY—Medical Officer. Salary, £150 for first and second years; £180 for the third and fourth years; afterwards, £200 a year. Applications to be sent in on or before December 3rd.

BUCKINGHAM UNION—Medical Officer for No. 3 District: £105 per annum.

CASTLEBAR DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.

CITY OF LONDON UNION WORKHOUSE—Resident Medical Officer.

CORK FEVER HOSPITAL—Physician.

CROOM DISPENSARY and WORKHOUSE—Apothecary: £30 and £20 per annum. Applications on or before December 3rd.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon.

EXETER DISPENSARY—Surgeon.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

LEXDEN and WINSTREE UNION—Medical Officer for No. 2 District: £36 per annum.

MALTON DISPENSARY—Medical Officer: £100 per annum. Applications to Mr. H. Pickering, Honorary Secretary.

MORVEN (Parish of), Argyleshire—Medical Officer. Salary, £100 per annum. Testimonials to be sent in on or before the 30th December, to H. A. Fraser, Morven, Fort William, N.B.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury—Medical Registrar. Salary, £50 per annum. Applications to the Secretary on or before December 2nd.

NORTHAMPTON GENERAL INFIRMARY—Assistant House-Surgeon. Applications on or before 28th instant.

NORWICH FRIENDLY SOCIETIES MEDICAL INSTITUTE—Surgeon.

OAKHAM RURAL SANITARY DISTRICT—Medical Officer of Health; £60 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road—Senior House-Surgeon. Salary, £104 per annum, with board and residence in the Hospital. Testimonials to be sent in to the Secretary on or before December 9th.

RYDE DISPENSARY—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. PANCRAS UNION—Non-resident Dispenser. Salary, £80 per annum, with dinner daily. Candidates must be L.S.A., or duly registered under the Pharmacy Act (1868), or some other authority of law in that behalf. Applications on or before December 8th.

SALISBURY INFIRMARY—Two Physicians. Candidates must be Graduates in Medicine, or a Fellow, Member, or Licentiate of one of the Colleges of Physicians in the United Kingdom. Applications must be sent to the Secretary on or before December 10th.

SEVENOAKS UNION—Medical Officer and Public Vaccinator for No. 2 District. Salary, £70 per annum.

STRATFORD-ON-AVON UNION—Medical Officer for the Alverton District. Salary, £50 per annum.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

WEM UNION—Medical Officer for the Shawbury District. Salary, £40 per ann.

WESTERN GENERAL DISPENSARY, Marylebone Road—Physician in Ordinary. Honorary Physicians must be Fellows or Members of the Royal College of Physicians of London, and duly registered. Applications must be made to the Secretary on or before December 14th.

WESTMINSTER—Medical Officer of Health and Analyst. Salary, £150 as Medical Officer of Health, and £50 as Analyst. Applications, on or before December 9th, to George Buzzard, Vestry Clerk.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*DAVIES-COLLEY, J. N. C., M.B., appointed Visiting Surgeon to the Seamen's Hospital, Greenwich, *vice* R. Rendle, F.R.C.S., resigned.

DENHOLM, Andrew, M.B., appointed Assistant-Physician to the Western Infirmary, Glasgow.

EDMUNDSON, Joseph, M.D., appointed Resident Medical Superintendent of the Enniscorthy District Lunatic Asylum, *vice* T. W. Shiell, M.B., deceased.

FOULIS, David, M.B., appointed Assistant-Surgeon to the Western Infirmary, Glasgow.

ROUSE, Ezekiel, L.R.C.P.Ed., appointed Surgeon to the Bideford Infirmary, *vice* E. Cox, M.R.C.S., resigned.

SABERTON, Frederick W., M.R.C.S.Eng., appointed House-Surgeon to the Burton-on-Trent Infirmary.

SCOTT, William J., M.B., appointed Assistant-Surgeon to the Western Infirmary, Glasgow.

SNELL, George, L.R.C.P.Ed., appointed House-Surgeon and Registrar to the Victoria Hospital for Sick Children, Chelsea, *vice* H. G. Brigham, Esq., resigned.

*THOMPSON, John, M.D., appointed Surgeon to the Bideford Infirmary, *vice* D. King, M.R.C.S.Eng., deceased.

TICEHURST, Augustus Rowland, M.R.C.S.Eng., appointed Surgeon to the East Sussex, Hastings, and St. Leonard's Infirmary, *vice* G. B. Turner, M.D., resigned.

*WILLIAMS, William, M.B., appointed Medical Superintendent of the North Wales Counties Lunatic Asylum, Denbigh, *vice* G. T. Jones, Esq., resigned and superannuated.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

MARRIAGE.

WILSON—BUCHANAN.—On November 4th, at 2, Sandyford Place, Glasgow, by the Rev. Dr. Roxburgh, of Free St. John's Church, assisted by the Rev. George Reith, of Free College Church, J. G. Wilson, M.D., F.R.S.E., Professor of Midwifery, Anderson's University, Glasgow, to Edith Gray, youngest daughter of the Rev. Robert Buchanan, D.D., Glasgow.—No cards.

DEATHS.

HAWKINS, James Stilwell, M.R.C.S., at Bow, aged 37, on November 8th.

JAY.—On November 19th, at St. Stephen's Square, Norwich, Mary, relict of S. Jay, M.R.C.S.Eng., of Great Yarmouth, and daughter of the late Daniel Hook, Esq., of Great Yarmouth, aged 6[illegible].

PEARLESS, Charles D., M.R.C.S.Eng., at Sevenoaks, of diphtheria, aged 32, on November 19th.

WARD.—On November 23rd, at Penistone, Elizabeth, wife of John Ward, Esq., Surgeon.

TESTIMONIAL.—Mr. William Wilkinson of Sheffield has been presented with a handsome marble timepiece, purchased by subscription, on which is inscribed, "Presented to Wm. Wilkinson, Esq., M.R.C.S.E., and L.S.A., in testimony of the high esteem in which he has been held during thirty-nine years by the inhabitants of Harthill, Thorpe-Salvin, Wales, and Todwick, as their medical adviser, friend, and neighbour: 1874."

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. J. Astley Bloxam, "A living specimen of Spontaneous Congenital Dislocation of the Patella, and another from whom a Fibro-cystic Growth and portion of the Styloid Process has been removed"; Mr. Richard Davy, "Resection of the Knee-joint in young subjects".

TUESDAY.—Pathological Society of London, 8 P.M. Mr. Butlin: Chondroma of Lachrymal Gland. Mr. Butlin: Osteoma of Superior Maxilla. Dr. Dickinson: Obscure Abdominal Tumour. Dr. Cayley: Round-celled Sarcoma of the Cerebral Pia Mater. Mr. Hulke: Popliteal Aneurysm cured by Pressure, associated with Aortic Aneurysm. Mr. W. Adams: Parts after Resection of the Hip and Elbow-joints. Dr. Dowse: Cardiac Aneurysm. Dr. Dowse: Aneurysm of Aorta. Dr. Ralfe: Tatooing in Colours. Mr. Godlee: Rupture of the Trachea.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Discussion on Dr. Gervis's paper on "Retroversion of the Gravid Uterus"; Dr. Hoggan, "On the Dysmenorrhœal Membrane" (illustrated); Dr. Bathurst Woodman, "On the Treatment of Mammary Abscess by Rest"; Dr. Madge, "On a Case of Labour complicated by Pelvic Tumour and by Convulsions"; Mr. Ashburton Thompson, "On Zinc Phosphate in Cases of Amenorrhœa"; and other communications.

THURSDAY.—Harveian Society of London. 7.15 P.M.: Special Meeting of Council. 8 P.M.: Mr. J. R. Lane (the President), "On the Modern Treatment of Syphilis".

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Brand's Essence of Beef.

The preparations to which we last week referred as Brandt's are, we find, known as "Concentrated Beef-Tea" and "Essence of Beef" respectively. They are manufactured by Messrs. Brand and Co., No. 11, Little Stanhope Street, Mayfair, London.

The Lincoln County Hospital Fund now amounts to £17,701 : 8 : 4. The Committee in consequence have determined to commence building as soon as they have decided upon a suitable site.

Advertising Quacks.

The Glasgow authorities have an effective method of dealing with advertising quacks, and in this respect show a good example to the metropolitan and other municipal powers. A man named James James was brought before Bailie Morrison, of the Central Court, Glasgow, on the 20th instant, charged with having caused the distribution of obscene circulars. The defendant admitted the offence, and the presiding "bailie" mulcted the "Dr." in a 40s. penalty, and his servant, who had been engaged in distributing the pamphlets, in 10s. This Scotch plan of punishing the chief offender is far preferable to the English system, which punishes the bill-distributor only, and allows the chief offender to go unpunished.

We are obliged to defer several correspondents' letters and other matter till next week.

Mr. James Stewart, L.R.C.P. (Mexborough).—Weybridge would, we think, be the most suitable locality within the radius named.

Tests for Aniline Dyes.

Sir,—R. M. J. will find the tests for aniline dyes and arsenic in Miller's *Elements of Chemistry*. These are the products so extensively used in dyeing wearing apparel; and, as arsenic enters largely into the composition of some of them, it is this which should be sought for. I am, etc., S. M. Moore.

Physiological Laboratory, St. George's Hospital, S.W., November 1874.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, Nov. 23rd; The Lincoln Gazette; The Lincoln, Rutland, and Stamford Mercury; The Leeds Mercury; The Blackburn Times; The Leicester Advertiser; The Cork Constitution; The Lincolnshire Chronicle; The Carlisle Patriot; The Macclesfield Advertiser; The Auckland Times and Herald; The Northampton Mercury; The Knaresborough Post; The Wrexham Advertiser; The Northern Daily Express; The Eastern Daily Press; The Western Daily Mercury; The Ulster General Advertiser; The Brighton Examiner; The Lincolnshire Chronicle; The Melbourne Argus; The Isle of Wight Observer: The Accrington Times; The Leighton Buzzard Observer; The Lincolnshire Chronicle; The Daily Telegraph; The Durham Chronicle; The Halifax Evening Reporter; The Elgin Courier; The Sheffield Daily Telegraph; The Hampshire Telegraph; The Sheffield and Rotherham Independent; The Standard; The Portsmouth Times; The Armagh Guardian; The Morpeth Herald; The Bradford Observer; The Stroud News and Gloucestershire Advertiser; The Glasgow Herald; The Liverpool Mercury; The Liverpool Porcupine; The Scotsman; The Hackney Express; The Bedale and Northallerton Times; The Broad Arrow; The Surrey Advertiser; The Sussex Coast Mercury; The Ulster Advertiser; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Hughes Bennett, Nice; Dr. C. J. B. Williams, London; Dr. G. Johnson, London: Dr. J. Smith, Dumfries, Dr. J. C. Bucknill, Rugby; Mr. Joseph Bell, Edinburgh; Mr. J. E. Ingpen, London; Dr. Finlayson, Glasgow; Dr. J. Wilson, Chatteris; Dr. J. Wilson, Liverpool; Dr. Robert J. Lee, London; M.D.; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. R. P. Cotton, London; Dr. Beale, London; Dr. Headlam Greenhow, London; Mr. R. Liebreich, London; Dr. Buchanan, Glasgow: The Secretary of the Statistical Society, London; The Secretary of the Clinical Society; Dr. R. Maclaren, Carlisle; Dr. F. J. Brown, Rochester; Amicus certus in re incertâ cernitur; Mr. E. Halse, London; Dr. Desmond, Liverpool; Dr. Galton, Woodside; Mr. H. E. Armstrong, Newcastle-upon-Tyne; Dr. Arthur Graham, Weybridge: Mr. R. Jackson, Birkenhead; Dr. Ringland, Dublin: Dr. de Chaumont, Netley; Dr. Stevens, Liverpool; L.R.C.P.Edin.; Dr. Bell Taylor, Nottingham: Another Discontented Surgeon; Mr. R. Glyn Griffith, Aden: Dr. Parsons, Dover; Mr. Francis Parsons, Bridgwater; Mr. J. A. Nunneley, Leeds; Dr. Cheadle, London; Dr. Pavy, London; Mr. Aldersey, Havant; Dr. Wickham Legg, London; Dr. Hilton Fagge, London; Mr. S. W. Moore, London; Dr. Copeman, Norwich; Dr. Argyll Robertson, Edinburgh; Dr. Thomas Jones, London; Dr. Wilson Fox, London; Dr. Arthur Farre, London; Mr. Howse, London; Mr. Francis Mason, London; Mr. G. Cowell, London; Dr. Paterson, Louth; Mr. Bowman, London; Dr. Clouston, Edinburgh; Dr. Duffin, London; Dr. Batty Tuke, Edinburgh; Dr. Althaus, London; Dr. G. Buchanan, Glasgow; Sir James Paget, London; Mr. Thomas Smith, London; Mr. R. Davy, London; Sir William Gull, London; Dr. J. W. Ogle, London; Dr. Matthews Duncan, Edinburgh; Dr. Clifford Allbutt, Leeds; Dr. G. Harley, London; Dr. E. B. Baxter, London; Dr. Theodore Williams, London; Mr. Spence, Edinburgh; Mr. Griffith, Grosnant; Dr. R. Liveing, London; Mr. E. Owen, London; Dr. F. J. Mouat, London; Dr. Atthill, Dublin; Dr. Humphry, Cambridge; Dr. Wade, Birmingham; Dr. F. T. Roberts, London; Dr. A. S. Taylor, London; Mr. J. T. Clover, London; Dr. McKendrick, Edinburgh; Dr. Mackay, Birmingham; Dr. Shingleton Smith, Clifton; Our Dublin Correspondent; Inspector-General Maclaren, Netley; Mr. T. M. Stone, London; Our Edinburgh Correspondent; Mr. B. Hill, London; Mr. Partridge, Stroud; Dr. Kraus, Vienna; Mr. Garner, Stoke-upon-Trent; An Old African Officer; Mr. James Stewart, Mexborough; Mr. Walter Pearless, Sevenoaks; Dr. L. W. Sedgwick, London; Mr. Burdett, Greenwich; Dr. Symes Thompson, London; Mr. T. P. Teale, Leeds; Dr. Grainger Stewart, Edinburgh; Dr. T. W. Grimshaw, Dublin; Dr. W. B. Woodman, London; Mr. Rushton Parker, Liverpool; Dr. Durrant, Ipswich; Mr. Spencer Wells, London; Mr. Wagstaffe, London; Dr. H. M. Madge, London; Dr. Cassells, Glasgow; Dr. Julius Pollock, London; Mr. J. W. Howard, London; Mr. J. Foster, London; etc.

BOOKS, etc., RECEIVED.

Autobiography of A. B. Granville, M.D., F.R.S. Vols. I and II. London: Henry S. King and Co. 1874.

The Maintenance of Health. By J. Milner Fothergill, M.D. London: Smith, Elder, and Co. 1874.

Physiological Chemistry. By S. W. Moore. London: Smith, Elder, and Co. 1874.

A Handbook of Therapeutics. By Sydney Ringer, M.D. Fourth Edition. London: H. K. Lewis. 1874.

Pathological Anatomy of the Nervous Centres. By E. L. Fox, M.D. London: Smith, Elder, and Co. 1874.

The Common Frog. By St. George Mivart, F.R.S. London: Macmillan and Co. 1874.

REPORT
OF THE
COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

VI.—ANTAGONISM BETWEEN TEA, COFFEE, COCAINE, THEINE, CAFFEIN, GUARANINE, ON THE ONE HAND, AND MORPHIA ON THE OTHER. *(Continued.)*

2. *The Antagonism between Theine, Caffeine, and Guaranine, on the one hand, and Meconate of Morphia on the other.*

A. *Antagonism between Theine and Meconate of Morphia.*

The physiological action of theine having been determined by Dr. Alexander Bennett, the Committee had next to ascertain its minimum fatal dose. The experiments were performed on rabbits and cats, because the symptoms produced by the action of theine on these animals, more especially the latter, were very characteristic.

TABLE LIII.—*Showing the Minimum Fatal Dose of Theine in Rabbits.*

No. of Experiment.	Weight of Rabbit.	Dose in grains.	Result.	Remarks.
461/1	4 lbs.	2	Recovery	No effect, except flushing of the ears.
462	3 lbs. 8 oz.	3	Recovery	Ditto. Slight paralysis.
463	3 lbs. 7 oz.	4	Recovery	Ditto. Paralysis more marked.
464	3 lbs. 4 oz.	5	Recovery	Very marked paralysis; twitches.
465	3 lbs. 2 oz.	6	Death	Convulsions; excitement.
466	3 lbs. 2½ oz.	5½	Death	Ditto ditto.
467	3 lbs. 3 oz.	5¼	Recovery	After severe tetanic spasms.
468	3 lbs. 3¾ oz.	5½	Recovery	Ditto ditto.
469	3 lbs. 4 oz.	5¼	Recovery	Ditto ditto.
470	3 lbs. 4½ oz.	5¾	Death	Severe tetanic spasms.

These experiments show that the fatal dose of theine for a rabbit of from 3 lbs. 4 oz. to 3 lbs. 2½ oz. is between 5¼ and 5½ grains.

TABLE LIV.—*Showing the Minimum Fatal Dose of Theine in Cats.*

No. of Experiment.	Weight of Cat.	Dose in grains.	Result.	Remarks.
471	4 lbs. 14 oz.	4	Recovery	Great excitement.
472	4 lbs. 10 oz.	5	Recovery	Ditto; slight paralysis.
473	4 lbs. 9 oz.	6	Death	Excitement; convulsions in 23 min.
474	4 lbs. 15 oz.	6	Death	Ditto; ditto in 26 min.
475	4 lbs. 14½ oz.	5½	Death	Ditto; ditto in 24 min.
476	4 lbs. 15 oz.	5¼	Recovery	After excitement, partial paralysis & slight convulsions.

The minimum fatal dose for a cat of nearly 5 lbs. weight is therefore about 5½ grains. This is nearly the same fatal dose as in the rabbit. The chief point of difference between the action of theine on the cat and on the rabbit is the intense excitement produced in the former. This is well illustrated by the following experiment, No. 473.

Experiment 473. A male cat, weighing 4 lbs. 9 oz., had six grains of theine injected under the skin of the back. For five minutes, nothing was observed. At the end of this period it began to move backwards and forwards, and the excitement gradually increased until the close of fifteen minutes after the administration of the drug, when it seemed to be frantic. These fits of intense cerebral excitement afterwards occurred at intervals of two or three minutes. Between them the animal lay quiet. It appeared to be extremely susceptible to irritation. A stick brought near it was immediately bitten. Salivation became very profuse. Twelve minutes after the dose had been given, the cat had difficulty in moving its posterior extremities. This difficulty gradually passed into complete paraplegia. Thirty minutes after, it could not move the hinder part of its body, but its senses were very acute. The animal noticed every movement made near it, and it tried to bite. The paralysis gradually invaded the fore extremities also, and the cat was unable to sit up. It lay with its head slightly raised, but still there was the same acuteness of the senses of hearing and vision, and it was easily irritated. It remained in this condition for an hour and a half, when, after two very severe clonic spasms, it died.

The narrative of the above experiment indicates intense cerebral excitement associated with gradual loss of the functions of the spinal cord.

a. *On Cats.*

The next point was to determine how far theine could antagonise a fatal dose of morphia in a cat. Before this could be done, it was necessary to ascertain what was the minimum fatal dose of meconate of morphia for a cat. This was approximately fixed by ten experiments at from 1½ to 1¾ grains. These experiments are summarised in the following table.

TABLE LV.—*Showing the Minimum Fatal Dose of Meconate of Morphia in Cats.*

No. of Experiment.	Weight of Cat.	Dose in grains.	Result.	Remarks.
477	4 lbs. 6 oz.	¼	Recovered	No evident effect.
478	4 lbs. 9 oz.	½	Recovered	Drowsiness.
479	4 lbs. 10½ oz.	¾	Recovered	Drowsy; dry mouth; slight feebleness in walking.
480	4 lbs. 5¾ oz.	1	Recovered	Ditto; more marked.
481	4 lbs. 10 oz.	1¼	Recovered	Other symptoms more marked.
482	4 lbs. 9¼ oz.	1½	Recovered	Nearly comatose, but could be roused.
483	4 lbs. 10½ oz.	1¾	Death	In comatose state 2 hours after; found dead 6 hours after.
484	4 lbs. 13 oz.	1¾	Death	Found dead 10 hours after.
485	4 lbs. 13 oz.	1½	Recovered	This animal was ill until the end of 16 hours, when it began to recover.
486	4 lbs. 11 oz.	1½	Recovered	Began to recover 12 hours after.

These experiments show that for an average sized cat a dose of 1½ grains of meconate of morphia is nearly fatal, while a dose of 1¾ grains is certainly so. The general effects are precisely similar to those already described as occurring in the dog. The only point of interest is that, with small doses, we observed dryness of the mouth; but large doses produce salivation. When salivation did occur, it was so profuse as to endanger the life of the animal, if comatose, from suffocation.

Having determined the fatal dose, for a cat of average size, of theine to be about 5½ grains, and of meconate of morphia to be from 1½ to 1¾ grains, the following experiments were made: in these, the substances were injected simultaneously.

Experiment 487. A female cat, weighing 4¼ lbs., had 1¼ grains of meconate of morphia and 5 grains of theine subcutaneously injected simultaneously. In five minutes, profuse salivation occurred. There was much cerebral excitement, manifested as already described. In five minutes more, the animal fell on its side in a violent tetanic spasm of the whole body, which continued for about thirty seconds. On recovering from this spasm, it lay on its side, quiet, and breathing very rapidly. Three minutes afterwards, another severe tetanic spasm occurred. The mucous membrane of the mouth was now dry and congested. The respirations became irregular. After slight convulsive twitches of the body, death ensued, thirty-four minutes after the introduction of the active substances.

Experiment 488. A male cat, weighing 6½ lbs., had 1½ grains of meconate of morphia and 6 grains of theine injected simultaneously. The usual phenomena occurred, and the animal died, after a severe convulsion, forty minutes after the dose.

Experiment 489. A male cat, weighing 7 lbs., had 1¾ grains of meconate of morphia and 6 grains of theine injected simultaneously. There were no apparent effects produced in this case until fifty-two minutes afterwards, except that the animal lay in a corner of the cage in a drowsy state. It then began to move uneasily about, had slight risus sardonicus, lay down upon its side, extended its limbs, the respirations became more and more irregular, and death ensued sixty-five minutes after the dose. In this case, there was not, from first to last, any convulsive seizure.

Experiment 490. The last described experiment appeared to be so important, as indicating an antagonistic action between the two substances, as to call for repetition under conditions as nearly similar as possible. A male cat, weighing 6¾ lbs., had 1¾ grains of meconate of morphia and 6 grains of theine injected simultaneously. The effects were precisely similar to those described in last experiment, and the animal died, without any convulsions, at the end of eighty minutes after the dose.

The conclusions to be drawn from these experiments are as follows.

1. There appeared to be an antagonistic action between the two substances, inasmuch as the symptoms produced by either were considerably

modified, but life was not saved; and 2. The meconate of morphia delayed the appearance of the convulsions characteristic of the action of theine, while, on the other hand, the theine did not appear to affect in a marked way the action of the meconate of morphia. As the latter conclusion did not appear to be sufficiently obvious at this stage of the inquiry, the question was re-examined in a second set of experiments some time afterwards. In this second set of experiments, smaller doses of theine were given.

Experiment 491. A male cat, weighing 6¾ lbs., had 1¾ grains of meconate of morphia and 4 grains of theine subcutaneously injected simultaneously. Nothing particular was observed for thirty minutes, except that the animal appeared to be in a drowsy condition. At the end of that time, it began to move about uneasily, and manifested, by its efforts to escape from the cage, considerable cerebral excitement. This continued for fifteen minutes, when it subsided into a comatose condition. It remained in the state of coma for eight hours, when it gradually recovered. It was again subjected to experiment eight days afterwards.

Experiment 492. The same cat now weighed 6½ lbs. A grain and three-quarters of meconate of morphia were subcutaneously injected. It quickly passed into a drowsy condition. At the end of an hour after the injection of the morphia, it was deeply comatose. Pinching the foot excited very feeble reflex movements. It remained in this state for nearly twelve hours. When observed at that time, it was in a condition difficult to describe. When roused, it raised its head and looked around with a vacant stare. When pushed, it attempted to walk, but could scarcely do so. After progressing a few feet, it fell down and relapsed into the comatose state. This animal recovered, proving that the dose of 1¾ grains of meconate of morphia was not a fatal dose.

Experiment 493. A cat, weighing 5 lbs. 14 oz., had two grains of meconate of morphia subcutaneously injected. After the usual phenomena, this animal passed into a state of profound stupor or coma, and it was found dead at the end of six hours.

Experiment 494. A cat, weighing 5 lbs. 15 oz., had two grains of meconate of morphia subcutaneously injected. Immediately thereafter four grains of theine were subcutaneously injected. Twenty minutes thereafter, it passed into a drowsy condition, which gradually developed into coma. So far as could be observed, there were no symptoms indicating the presence of theine. Forty minutes after the first injection, as the coma was becoming more and more profound, a second dose of three grains of theine was introduced subcutaneously. Ten minutes after the second dose, there were slight muscular twitchings, more especially of the muscles of the face and mouth. These increased in severity until fifteen minutes after the second dose, when the animal had a severe tetanic spasm, similar to that produced by theine. It was now observed that the coma was not profound. The animal occasionally raised its head and looked about; it attempted to shift its position; and when a stick was placed between its jaws, these closed quickly upon it. It remained in this condition for three hours; from that time it slowly recovered.

Experiment 495. Eight days afterwards, the cat used in experiment 494 was weighed, and its weight was now found to be 5 lbs. 13 oz. It appeared well and in good condition. Two grains of meconate of morphia were now introduced subcutaneously. The cat passed quickly into a state of stupor, which relapsed into coma. From this comatose condition it did not recover, as it was found dead in its cage twelve hours afterwards.

Ten experiments were now made in as nearly the same conditions as possible. These, along with the experiments just described, are stated, as regards general results, in the following table. (See Table LVI.)

This table shows without doubt that theine influences the physiological action of meconate of morphia, because, after a dose of that drug, which alone would produce coma, if theine be also introduced, it is followed by a period of cerebral excitement. Although the limits of the antagonistic action are narrow, it will be seen—(1) that while a cat may recover from the effects of a dose of 1¾ grains of meconate of morphia given alone, it will rarely recover (Experiment 494) from the effects of a dose of 2 grains, even should the effects of the latter dose be modified by those following the introduction of 4 or 5 grains of theine; (2) that in three cases (Nos. 501, 504, and 505) the animals recovered from the effects of 1⅞ grains of meconate of morphia and 4 to 5 grains of theine, while they died when the same dose of meconate of morphia was administered eight days afterwards; (3) that when the dose of theine was increased beyond 5 grains, the animals invariably died apparently from the effects of the theine (Experiments 488, 489, 490). The important result, however, is shown that fatal doses of meconate of morphia (1⅞ and even 2 grains) may be completely antagonised by theine.

TABLE LVI.—*Shewing the Effects in Cats produced by the simultaneous action of Meconate of Morphia and Theine.*

No of Experiment.	Weight of Cat.	Dose of the Meconate of Morphia in grains.	Dose of Theine in grains.	Result.	Remarks.
487	4 lbs. 4 oz.	1¼	5	Death	Died after convulsions in 34 min.
488	6 lbs. 8 oz.	1½	6	Death	Ditto ditto in 40 min.
489	7 lb.	1¾	6	Death	No convulsions; death in 65 min.
490	6 lbs. 12 oz.	1¾	6	Death	Ditto; death in 80 min.
491	6 lbs. 12 oz.	1¾	4	Recovery	Coma for 8 hours; cerebral excitement.
492	6 lbs. 8 oz.	1¾	No theine	Recovery	Coma for 12 hours.
493	5 lbs. 14 oz.	2	No theine	Death	Coma; death in 6 hours.
494	5 lbs. 15 oz.	2	4 3 gr. 40 m. aft. first	Recovery	Coma; muscular twitchings.
495	5 lbs. 13 oz.	2	No theine	Death	Profound coma; found dead 12 hours afterwards.
496	5 lbs. 14 oz.	2	5	Death	Coma; afterwards slight excitement; then deeper coma.
497	6 lbs.	2	5	Death	Ditto ditto.
498	5 lbs 8 oz.	2	5	Death	Coma; then slight convulsions, followed by deep coma.
499	5 lbs. 9 oz.	1⅞	4	Recovery	Coma at first; afterwards slight excitement; then coma; recov.
500	6 lbs.	1⅞	5	Recovery	Coma; considerable excitement.
501	6 lbs. 1 oz.	1⅞	4	Recovery	Ditto ditto; killed 8 days thereafter, in 8 hours by same dose.
502	5 lbs. 15 oz.	2	4	Death	Coma; excitement; coma.
503	5 lbs. 14 oz.	2	5	Death	Ditto ditto ditto.
504	5 lbs. 10½ oz.	1⅞	5	Recovery	Coma; great excitement; killed 8 days afterwards by same dose.
505	5 lbs. 12 oz.	1⅞	4	Death	Coma; excitement; found dead 8 days thereafter, 14 hours after same dose.

b. On Rabbits.

A few experiments were made on rabbits as to the antagonism between meconate of morphia and theine. These are briefly recorded in the following table.

TABLE LVII.—*Showing the Effects in Rabbits produced by the simultaneous action of Meconate of Morphia and Theine.*

No. of Experiment.	Weight of Rabbit.	Dose of Meconate of Morphia in grains.	Dose of Theine in grains.	Result.	Remarks.
506	4lbs.	5	4	Death	Severe convulsions.
507	3 lbs. 14 oz.	4	5	Death	Ditto
508	3 lbs. 15 oz.	4	5	Death	Ditto
509	4 lbs. 1 oz.	5	5	Death	Ditto
510	4 lbs. 1½ oz.	6	5	Recovery	After severe convulsions, this animal slowly recovered; died from same doso of morphia 8 days afterwards.
511	4 lbs. 10 oz.	7	5½	Death	Convulsions.
512	3 lbs. 12 oz.	8	5¾	Death	Ditto.
513	3 lbs. 10 oz.	4	6	Recovery	Severo convulsions; recovered after same dose of morphia 8 days thereafter.
514	3 lbs. 15 oz	3	5¾	Recovery	Severe convulsions; recovered after same dose of morphia 8 days thereafter.
515	4 lbs.	4	5	Death	Very severe convulsions.
516	4 lbs. 1 oz.	4	5	Death	Ditto ditto.
517	4 lbs. 1 oz.	4	5¼	Death	Ditto ditto.

The experiments on rabbits were considered so unsatisfactory, that they were not prosecuted further, because it was evident that in this animal meconate of morphia did not produce effects comparable to those following the action of the substance in carnivorous animals. The specific action of salts of morphia in rabbits is to produce, in addition to a stupor not nearly so profound as in carnivorous animals like the dog or cat, convulsions of an epileptiform character. Theine produces somewhat similar effects in rabbits. At the same time, it was observed that the drowsy appearance following soon after the exhibition of meconate of morphia in rabbits was much less marked in those instances in which theine was also administered.

B. *Antagonism between Caffeine and Meconate of Morphia.*

This question was investigated in exactly the same way as had been done with theine and meconate of morphia, and the results were the same. As has been shown by Dr. Alexander Bennett, the physiological actions of theine and caffeine are so similar as to make it impossible to distinguish the one from the other. The following experiments were made on cats, because, as has been stated above, experiments on rabbits with these drugs were not considered satisfactory. As the experiments were precisely similar to those made as to the action between theine and meconate of morphia, it is not necessary to give them in detail. They are summarised in the following table.

TABLE LVIII.—*Showing the Minimum Fatal Dose of Caffeine on Cats.*

No. of Experiment.	Weight of Cat.	Dose in grains.	Result.	Remarks.
518	4 lbs. 14 oz.	3	Recovery	Slight excitement.
519	4 lbs. 11 oz.	4	Recovery	Great excitement.
520	4 lbs. 13½ oz.	5	Recovery	Ditto, and convulsions.
521	4 lbs. 10 oz.	5	Recovery	Ditto ditto.
522	4 lbs. 15 oz.	5	Recovery	Ditto ditto.
523	4 lbs. 15½ oz.	5	Death	Intense excitement; convulsions; death in 2 hours,
524	5 lbs.	6	Death	Intense excitement; convulsions; death in 2¼ hours.
525	5 lbs. 1 oz.	5	Recovery	Excitement; convulsion.
526	4 lbs. 10½ oz.	5½	Recovery	Ditto ditto.
527	4 lbs. 11 oz.	5¾	Death	Excitement; convulsions; survived for 8 hours.

These experiments appear to show that the minimum fatal dose of caffeine for a cat of about 5 lbs. weight is approximately near six grains. The effects produced were similar to those following the introduction of theine.

The question of antagonism was then investigated as follows.

TABLE LIX.—*Showing the Effects on Cats of the simultaneous injection of Meconate of Morphia and Caffeine.*

No. of Experiment.	Weight of Cat.	Dose of Meconate of Morphia in grains.	Dose of Caffeine in grains.	Result.	Remarks.	Effects of crucial experiment eight days afterwards.
528	4 lbs. 4 oz.	1⅞	3	Death	Coma; this was a weakly animal.	
529	4 lbs. 6 oz.	1⅞	4	Recovery	Excitement, followed by stupor.	Death in 4 hrs.; coma.
530	4 lbs. 8 oz.	1⅞	5	Recovery	Ditto ditto.	Recovery.
531	4 lbs. 9 oz.	1⅞	4	Recovery	Ditto ditto.	Recovery.
532	4 lbs. 15 oz.	2	4	Death	Coma; slight convulsions.	
533	5 lbs.	2	4	Death	Ditto ditto.	
534	5 lbs. 1 oz.	2	4	Death	Ditto ditto.	
535	5 lbs. 3 oz.	1⅞	4	Recovery	Stupor for 10 hours.	Death in 6 hrs.; coma.
536	4 lbs. 12 oz.	1¾	4½	Recovery	Stupor for 12 hours.	Recovery.
537	4 lbs. 13 oz.	1¾	4¾	Death	Convulsions; coma.	
538	4 lbs. 12 oz.	1¾	4	Death	Ditto ditto.	
539	4 lbs. 13 oz.	1⅞	4½	Death	Ditto ditto.	
540	5 lbs.	1⅞	4	Recovery	Coma; slight convulsion.	Death in 5 hrs.; coma.
541	5 lbs. 2 oz.	1¾	4	Recovery	Coma; no convulsn.	Recovery.
542	5 lbs. 2 oz.	1½	4	Recovery	Ditto ditto	Recovery.
543	5 lbs. 2½ oz.	1½	4	Recovery	Ditto ditto.	Recovery.
544	5 lbs.	1¾	4	Recovery	Ditto ditto.	Recovery.

An analysis of this table shows the very important result that in three cases (Nos. 529, 535, and 540) the animals recovered after a dose of 1⅞ grains of meconate of morphia and 4 grains of caffeine, while they died after the administration, eight days after the first experiment, of 1⅞ grains of meconate of morphia alone. On the other hand, in two instances (Nos. 530 and 531) the animals survived the crucial experiment. When the dose of meconate of morphia was less than 1⅞ grains (as in Nos. 536, 541, 542, 543, and 544), the animals survived both the simultaneous action of the drugs and the crucial experiment. In these cases, it is fair to suppose that a dose of 1⅞ grains was not a fatal dose for these particular animals. From these facts, it seems reasonable to believe that caffeine antagonises the action of meconate of morphia by modifying the symptoms, and even to the extent, in certain instances, of saving life, but that the antagonism is limited. On the one hand, the animal may die from the effects of too large a dose of caffeine, and, on the other, from the effects of too large a dose of meconate of morphia; but there is a point between the two actions where the physiological effect is such that life may be saved from doses which would otherwise prove fatal.

C. *Antagonism between Guaranine and Meconate of Morphia.*

Six experiments were performed with the view of ascertaining whether guaranine in any way acted as an antagonist to meconate of morphia. The results were similar to those obtained with theine and caffeine; and the inquiry was not prosecuted any farther. These experiments are shortly noted in the following table.

TABLE LX.—*Showing the Effects in Cats of Guaranine and Meconate of Morphia.*

No. of Experiment.	Weight of Cat.	Dose of Meconate of Morphia in grains.	Dose of Guaranine in grains.	Result.	Remarks.
545	5 lbs. 1 oz.	1	4	Death	Much excitement; died 2 hours afterwards.
546	5 lbs. 3 oz.	1	3	Death	Much excitement; died in 3 hours.
547	6 lbs.	2-3rds	3	Recovery	Excitement; no stupor; partial paralysis.
548	6 lbs.	2-3rds	No guaranine	Recovery	Deep stupor; paraplegic for many hours.
549	6 lbs. 1 oz.	4-5ths	3	Death	Excitement; convulsions.
550	6 lbs. 2 oz.	4-5ths	No guaranine	Death	Coma; no convulsions.

There could be no doubt, from these experiments, that guaranine modified to a considerable degree the physiological action of meconate of morphia. The animal in experiment No. 547 recovered after a simultaneous dose of two-thirds of a grain of meconate of morphia and three grains of guaranine; but, in experiment No. 548, the same animal, seven days afterwards, recovered from a dose of two-thirds of a grain of meconate of morphia administered alone. This showed that two-thirds of a grain of meconate of morphia for this particular animal was not a fatal dose; but the symptoms were considerably different in the two instances. In the first experiment, No. 547, in which both drugs were given, there was excitement with no stupor; while in the second experiment, No. 548, in which the narcotic was given alone, there was no excitement, but deep stupor approaching to coma.

[*To be continued.*]

ON THE MINUTE PATHOLOGY OF ENTERIC FEVER: PRELIMINARY NOTICE.

By E. KLEIN, M.D.

[DR. KLEIN has kindly furnished us with the following note, translated from the *Centralblatt für die Medicinischen Wissenschaften*, Berlin, 1874, Nos. 44 and 45, in which it first appeared.]

1. Sections through the hardened ileum of persons who have died in consequence of enteric fever, show that there takes place an abundant absorption of peculiar organisms by the lymphatics and venous vessels of the mucous membrane over and around and the Peyer's glands.

2. In the earliest case I have examined (seventh day from the day on which headache came on), Lieberkühn's crypts contained in their lumen peculiar greenish-brown, generally spherical, bodies of various sizes: the largest being twice and three times as large as a human coloured blood-corpuscle; the smaller ones only one-half or one-fourth as large. They are generally densely crowded together, and appear then of a dark olive-green colour. At the margin of such clusters, where they lie more isolated, numerous kidney-shaped or hourglass-shaped forms are to be met with, thus indicating rapid division. Similar bodies are to be found in the tissue of the mucous membrane, where they appeared to be enclosed within the lymphoid cells of the adenoid tissue. They are also contained in the venous vessels, and occasionally in a lymphatic space. In the former, they undergo rapid division in two and three, whereby they gradually split into small granules—micrococci, which are of a yellowish-green colour. These micrococci are arranged either as dumb-bells, or as necklaces of four and more joints, or they form true zoogloea. Finally, these micrococci stand in a genetic relation to a mycelium, the filaments of which are branched, apparently smooth, and of a yellowish-green colour. (Similar observations I have published in a paper on sheep-pox, read before the Royal Society.)

The organisms just mentioned are to be met with, not merely in the neighbourhood of Peyer's glands, when moderately swollen, but also in portions of the intestinal mucous membrane, which, on macroscopical inspection, except a slight general swelling, do not present any marked changes; microscopical observation shows, however, also here, changes in the lymph-follicles of Peyer's glands, which will be described hereafter. Besides these organisms mentioned above, there are also found lumps of the same micrococci, as before mentioned, penetrating from the free surface through the epithelium into the substance of the mucous membrane, especially into the Lieberkühnian crypts, and hence into the lymphatic spaces surrounding the latter.

3. In a case more advanced (twelfth day), I found exceedingly large quantities of micrococci penetrating from the free surface of the mucous

membrane into the tissue of the latter and into the Lieberkühnian crypts, and hence into the lymph-spaces and venous vessels; this was the case, not only with the mucous membrane around the Peyer's glands, but also with parts of the mucous membrane that were somewhat remote from these glands, and which did not show marked changes on macroscopical inspection. Where these micrococci form close groups, as in and around the Lieberkühnian crypts, they appear of a rather yellowish-brown colour.

4. In another case, still more advanced (sixteenth day), I met with the same relations; the number of micrococci being, however, much smaller.

5. The lymph-follicles of the Peyer's glands showed, in the first case, (seventh day), a peculiar change, consisting in the centre of the follicles being converted into a spongy mass, owing to their blood-vessels being surrounded by spaces, lined by the adenoid tissue ensheathing the blood-vessels. The lymphoid cells of the adenoid tissue were transformed into large granular corpuscles containing two to five and more nuclei, which very much resembled the nuclei of "endothelial" cells. In some of the lymph-follicles, I found true giant-cells.

In the later stages (twelfth day) also, the mucous membrane showed similar changes; the lymphoid corpuscles of its adenoid matrix being transformed into large, coarsely granular cells, containing either one large vesicular or constricted nucleus, or several such nuclei. Some of these cells possessed a vacuole, containing two or three small spheroidal nuclei. Similar cells were found in the venous vessels of the mucous membrane and the submucous tissue, as well as in the lymphatics of the latter.

LARGE HEPATIC CYST SIMULATING AN OVARIAN TUMOUR: UNSUCCESSFUL OPERATION: REMARKS ON DIAGNOSIS.*

By J. WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital; Honorary Secretary to the Southern Branch.

H. H., aged 27, was admitted into the Royal Portsmouth Hospital under my care on December 15th, 1873. She then stated that she had recently arrived from Dublin, and that she had been told there by several medical men of the Army Medical Department that she was labouring under "a floating tumour of the abdomen". Her general health had been good prior to her present disorder, for which she had not undergone any medical treatment. Her family history indicated no special tendency to disease. She had been married six years and a half, but had had no family. She miscarried at the third month six years ago, and her disease manifested itself soon after this accident. She noticed first of all that her belly was larger than natural, and then that a movable swelling could be felt in her right side. She stated that she had always menstruated regularly, but during the last few months the discharge had almost disappeared. Her health and strength had also much declined. At the same time, the abdomen had gradually increased in size.

On admission, the patient looked pale and worn, and she had the expression of a woman thirty-two or -three years of age. She suffered from shortness of breath in walking; but, on examination, her chest was found quite healthy. Pulse 100, regular and full. Digestion was normal. The mammæ were flat and small, and the nipples undeveloped. In the erect posture, the abdomen appeared very prominent and tense below the umbilicus, and her size exceeded that of a woman at the full term of pregnancy. On inspection, it presented a smooth and even surface. At the same time, the outline of the tumour was somewhat irregular. The upper margin could be clearly defined; and the right side, especially above the umbilicus, was slightly more prominent than the left. The abdominal walls were thick, and venous markings were entirely absent. The umbilicus was flattened, and movable from side to side. On a full inspection, the fundus of the tumour appeared to move freely beneath the abdominal walls. On percussion, entire dulness was elicited over the whole abdomen, except just below the margin of the ribs on each side and over a narrow space in the left iliac region. Change of posture did not alter the situation of the dulness. Fluctuation was coincident with the dulness, and could be readily detected in all directions; the character of the wave was slow and full.

At the time of admission, the following measurements were observed: Girth at umbilicus, 35 inches; from ensiform cartilage to umbilicus, 8½ inches; from umbilicus to os pubis, 9 inches; from right anterior superior spine of ilium to umbilicus, 8½ inches; from left anterior superior spine of ilium to umbilicus, 7 inches.

On examining the pelvis, no portion of the tumour could be found within the cavity; but a tense swelling was easily reached, resting on the brim. No impulse from within could be conveyed to the external surface of the abdomen. The uterus was freely movable, and its cavity normal; it was found low down in the pelvic cavity, and pressed somewhat forwards.

After several careful examinations, I made the following diagnosis: Tumour ovarian, probably unilocular; walls of the cyst thick; pedicle long; no adhesions to pelvic organs, and probably none to anterior abdominal walls.

On January 7th, 1874, I unfortunately performed an operation, but it was not ovariotomy. My colleagues Mr. Knight, Mr. Norman, and Mr. Turner, kindly assisted me. Mr. Madeley skilfully administered chloroform; and Surgeon-General Mouat, Dr. Martin, Dr. Case, Dr. Cogan, R.A., and several other friends, were present. The incision was commenced two inches below the umbilicus, and continued downwards for five inches in the median line. The abdominal wall was well developed, and contained a layer of fatty tissue about an inch in thickness. The peritoneum was readily defined at this stage of the operation. Slight retching occurred, which projected the tumour against the wound, and it appeared to move freely under the peritoneum; but, when this was divided, the cyst was found everywhere adherent by long bands to the parietes. The tumour was then tapped, and two gallons and a half of clear yellowish limpid fluid were withdrawn; the final portion which escaped was slightly opaque, and contained a few whitish mucoid flakes. The adhesions, which were almost universal over the front of the cyst, were then readily broken down with the hand, and the mass detached from the pelvic brim. There was no adhesion to any pelvic organ. The hand was then carried over the apex of the tumour, and here it was found continuous with some internal organ. There was no pedicle; a portion of the cyst was therefore left within the abdomen, and was secured to the upper part of the wound, and the remainder cut off. The abdominal cavity was then sponged out. There was scarcely any hæmorrhage during the operation. The wound was closed in the ordinary way.

The patient scarcely rallied from the shock of the operation. Obstinate vomiting soon supervened, and she died in thirty-six hours.

POST MORTEM EXAMINATION.—The edges of the cyst attached to the wound were dark coloured, and smeared with sanguineous exudation. The lower part of the incision was well united. On opening the abdominal cavity, the cyst was found continuous with the free border of the liver; but the portion of it left at the time of the operation was quite sufficient to prevent any traction upon that viscus. Around the pedicle and the adjacent viscera, there were no indications of recent inflammation. The abdominal cavity contained only two or three ounces of turbid fluid; and a few purulent deposits were found over the cæcum and the surfaces which had been adherent to the tumour. The pelvic viscera, kidneys, liver, and all the other organs, were healthy. The cyst itself consisted of a firm fibrous wall, and its thickness throughout was about one-third of an inch. Its inner surface was rough, and was evidently undergoing slow degeneration. The fundus was externally directly continuous with the fibrous envelope of the liver (Fig 1). A fold of

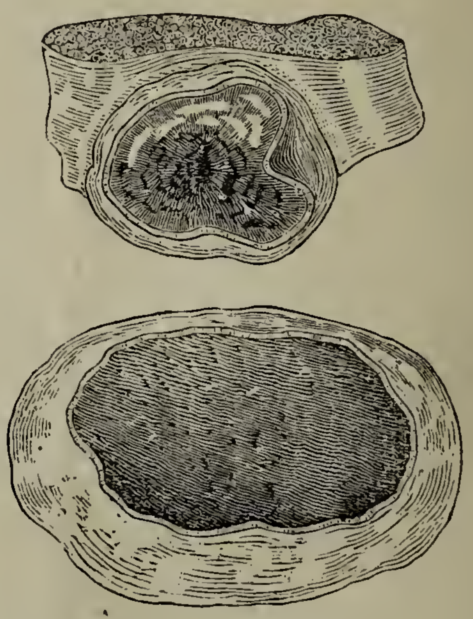

Fig. 1.—Cyst laid open; the upper figure represents the portion attached to the Liver.

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* Substance of an address delivered before the Southern Branch.

peritoneum also attached the tumour to this organ, and in it were several enlarged glands, well defined and freely movable. (Fig. 2.) On section, they presented the appearances of simple glandular structure.

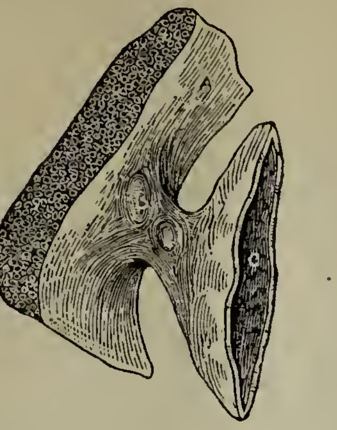

Fig. 2.—Fold of Peritoneum attaching Cyst to Liver, and containing an Enlarged Gland.

Having now given you, gentlemen, the leading facts connected with my case, I beg to offer the following propositions for consideration.

I. At the time when the patient came under my care, it was practically impossible to define the real attachment and character of the tumour.

II. A careful examination at an earlier stage of the disease would have enabled me to make an accurate diagnosis, and to distinguish at once the tumour from an ovarian cyst.

III. The operation of tapping would have given the patient a fair prospect of cure, and would probably have relieved the case of some of its obscurity.

I. The case undoubtedly remarkably simulated ovarian disease; and, at the time of the operation, I consider that I had every reason to believe that I had to deal with an ovarian cyst. The case was clearly one of cystic disease of the abdomen, probably unilocular, with a firm dense wall—the slow development of years. The abdominal parietes were thick and fatty, as well as tense. Still, from the absence of crepitus, from the movements of the abdominal wall over the apex of the tumour during respiration, and from the lateral mobility of the umbilicus, I concluded that the case was not complicated by serious adhesions. The cyst, moreover, remarkably distended the lower part of the abdomen, and rested on the brim of the pelvis. The position and mobility of the uterus clearly indicated that it was unadherent to the tumour. An ovarian tumour, as it enlarges, often rises out of the pelvis, and may even leave the uterus in its normal position. There was a general fulness and resistance above the uterus; but no fluctuation could be elicited between the pelvis and the abdominal wall. There was no protrusion of the mass into the cavity of the pelvis. The general appearance of the patient, absence of catamenia, and the pale and worn expression of countenance, helped to obscure the diagnosis.

The disease was certainly not ascites, from the prominence and outline of the abdomen, together with the special characters of the fluctuation and dulness.

The complete fluctuation excluded the possibility of its being either fibro-plastic or fatty tumour, for these diseases always consist of masses of apparently solid matter.

The pelvic examination eliminated at once the notion of fibro-cystic disease of the uterus, without taking into consideration the value of the signs obtained by external examination.

Again, there was no evidence of the tumour being of renal origin. As a general rule, renal cysts are behind the intestines. Tumours of the right kidney have the ascending colon on their inner border, while tumours of the left kidney are usually crossed by the descending colon. Renal tumours are usually associated with bloody urine, calculus, albuminuria, or nephritic colic.

It did not appear to be an hydatid tumour, for many reasons. 1. It was slow in its progress. 2. It had no irregularities on its surface. 3. The fluctuation was too decided for an hydatid tumour. 4. The upper part of the abdomen was comparatively flat; at the same time, the lower portion was the principal seat of the distension.

II. I must have said enough to prove to you that there is at least some evidence to sustain my first proposition. I feel now compelled to admit that a full knowledge of the history of the case would have greatly assisted the diagnosis, and would undoubtedly have induced me to adopt a very different kind of treatment. Some years before I saw my patient, she was informed by several medical men that she had a floating tumour of the belly. In this stage of the growth, I conceive that its attachment to the upper part of the abdominal cavity could have been very readily discovered. The swelling at the onset must have filled the upper regions of the abdomen, and must have been more or less movable on its short hepatic pedicle. The growth extended downwards—not upwards, as in ovarian disease. It was first seen in the region of the liver, then extended to the umbilicus, and lastly to the pelvic region. The freedom of the pelvis and hypogastric region from the tumour, and the resonance of the lower part of the abdomen, would have at once distinguished it from ovarian dropsy.

III. With reference to my last proposition, it is only now too obvious, as death has revealed the mystery of the case, that the operation of tapping ought to have been resorted to, instead of the severe operation of excision. It is a fact, that tumours attached high up in the abdomen are not so favourably situated for operation as those connected with the pelvic organs. Tapping would have been attended with less risk than usual; for the tumour was so adherent to the parietes, that no fluid could have escaped into the peritoneal cavity. The thickness of the wall would probably have prevented the complete collapse of the cyst, so that subsequent tapping would have been necessary. If inflammation of the cyst had followed the operation, and suppuration within its cavity, incision would have been imperative, and the cavity must have been kept open until obliteration had taken place. Treatment by drainage and the injection of deodorising agents would have given the patient, under these circumstances, a fair prospect of cure.

The operation of tapping, moreover, might also have assisted a correct diagnosis, by indicating the contraction of the cyst towards the upper part of the abdomen, and still greater freedom of the pelvic organs. I think that the general adhesions around the tumour would have effectually obscured the point of attachment.

The fluid contents of the cyst were accidentally thrown away at the time of the operation; therefore I am unable to give you the result of any micro-chemical examination. The contents of a simple cyst arising from the fibrous capsule of the liver could scarcely give any special characters to distinguish it from the limpid fluid of an ordinary unilocular ovarian tumour. Surely, if the chemical characters of fluids removed from the abdomen in cases of ascites and ovarian disease are insufficient often to distinguish these diseases, the mere examination of the fluid in an exceptional case must have proved of very doubtful diagnostic value.

For my own part, I do not consider the tumour in the light of an acephalocyst: 1. The history indicates that, during the early progress of the case, the tumour was floating. 2. There were no visceral adhesions at the upper part of the abdomen. Hydatid tumours are generally adherent in every direction. 3. At the time of the operation, the fluid contained no free hydatid cysts, and there were no remnants of former cysts attached to the inner surface. A microscopical examination might have exhibited hooklets and other *débris;* but on this matter I regret that I can give no opinion, for the reason before mentioned.

Finally, I selected the major operation for the following reasons. 1. The patient was very anxious to have the disease removed. 2. From the thickness of the cyst and the danger of septic changes within it, I considered that tapping would not be free from risk. 3. The general condition of the patient indicated that she would never be in a better position for the operation. 4. I considered the case a good one for a radical cure.

P.S. Since the death of the patient, I have been informed by the husband that three years ago she was examined at the Cork Hospital on several occasions, and that the physicians did not recommend an operation.

THE RECTUM IN ITS RELATION TO UTERINE DISEASE.*

By ARTHUR W. EDIS, M.D.,

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In this brief communication, I am desirous of directing attention to the important help, both as to diagnosis and treatment of uterine disorders, afforded us by the rectum. Although possibly well known to the few who pay special attention to diseases of women, it seems to me that it is not so generally known as it should be among practitioners; much valuable information is thus lost for want of being recognised, and an important channel for the relief of pelvic symptoms ignored from not being sufficiently known. But little allusion is made in most of our standard works on gynæcology to the fact of diseases of the rectum having been frequently overlooked, or treated as uterine disease; and yet it must be familiar to those practising in this speciality how frequently the symptoms of the one are confounded with those of the other. Fissure of the rectum, producing vaginismus, has been undetected until the patient was absolutely under the influence of chloroform, with the view to operating on the vagina for some imagined obstruction; obstinate constipation and difficulty in defæcation, for which the *Pharmacopœia* had been ransacked in vain, have been found, on examination, to depend on fibroid stricture of the rectum, or it may be some more serious malady; and aching in the left ovarian region, and more or less constant pain ascribed to, and treated for, uterine disease, has been found to depend upon malignant disease of the rectum.

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* Read before the Obstetric Medicine Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

It may be said that these cases should be seen by those surgeons who have directed special attention to the subject, and not treated by the gynæcologist; but, when we have considered more fully the reciprocal influence of diseases of the uterus and of the rectum, we shall see that a thorough knowledge of uterine disorders is essential to a proper understanding of the subject, and this is avowedly repudiated by most general surgeons; and it is for this special reason I am desirous of directing more attention to the subject than has hitherto been bestowed upon it by gynæcologists; for between the two the patient's interests suffer, and cases are often deemed incurable, and their treatment discontinued, when in reality their nature has never been properly made out; or, again, uterine disorder being ignored or but ill understood, operative procedures for the rectum are undertaken with anything but satisfactory results.

The value of examining *per rectum*, either digitally or manually, has only comparatively recently been much insisted on. The late Sir James Simpson, although he recognised the importance of the condition of the rectum in uterine disorders, lays no stress whatever upon the great assistance often afforded by rectal exploration in determining a doubtful diagnosis of pelvic tumours. Dr. Thomas of New York, in his admirable work on the *Diseases of Women*, fully appreciates the manifest advantages of this method of examination, and states that "they who have not employed this method systematically must have a faint idea of the great facility which it gives for exploration of the posterior wall of the uterus and rectouterine space". Dr. Barnes, in his recent valuable contribution on the *Clinical History of Diseases of Women*, is fully alive to the value of this method, and says it is often useful in determining the size and relations of the uterus, the complication with uterine or extra-uterine tumours, or the existence of the uterus in vaginal atresia.

Dr. Graily Hewitt also refers to the assistance often gained in examining patients where the hymen is intact by passing the finger *per rectum*. Professor Storer of Boston (*American Journal of Obstetrics*, May 1868), was one of the first, however, to call attention to the possibility of everting the lower portion of the rectum by passing the finger into the vagina and pressing it backward and downward over the levator ani, and thus turning out the rectum through its sphincter like the finger of a glove, so as to ascertain the presence of chancres, fissures, the character of polypi, the extent and number of internal hæmorrhoids, the position of the inner orifice in fistula, etc., with far greater certaintyand alacrity than by the speculum, or than can be done in the male.

Should the sphincter be unusually irritable, and spasmodically contracting with violence when touched from below, or thus from above, it can be forcibly distended by the thumbs and temporarily ruptured without causing any permanent injury, some temporary incontinence of fæces being all that results.

It was not till the year 1872 that Dr. Gustave Simon of Heidelberg proposed the artificial dilatation of the anus and rectum for exploration and for operation, by the gradual introduction of the whole hand (*Archiv für Klinische Chirurg*, vol. xv., part 1). At first, two, then three or four fingers are slowly passed in by a species of rotary motion, the patient being placed fully under the influence of chloroform or ether, until the whole hand and, if necessary, the forearm are introduced; the whole abdominal region as far as the kidney and umbilicus can thus be examined without danger, and the condition of the uterus and ovaries carefully ascertained by means of the bimanual manipulation. With a moderate sized hand, provided the examination be conducted slowly and carefully, there need be nothing more than a slight tearing of the anus, and only very exceptionally a rupture of some of the fibres of the sphincter. In exceptional cases, it may be necessary to make an incision in the posterior *raphè* of the sphincter muscle, so as to avoid much tearing. The wound thus made generally heals up in a week or ten days, especially if a suture be inserted. No incontinence follows.

The advantage of examining *per rectum* in cases of retroflexion is too well known to demand more than a passing mention. In cases of fibroid of the uterus, rectal exploration often throws much light upon the exact nature of the case, and enables us to decide upon the feasibility of removing the tumours by operative procedures. In cases of fibrocystic disease of the uterus, the rectal examination is indispensable. In one well marked case under my care, where at first the diagnosis was very doubtful, the question of its being ovarian or fibro-cystic was settled by ascertaining the presence of both ovaries in their normal position, posterior to the tumour and separated from it, and by this means alone was it possible to clear up the diagnosis. In another case, recently under observation, of malignant disease of the rectum—high up—the case had long been regarded as uterine, and treated as such, the chief symptoms being dysmenorrhœa, menorrhagia, acting in the left leg, with pain in walking, and pain in the lower abdomen and back. On examining *per rectum*, the nature of the malady was detected, and the patient thus saved much needless suffering. In attempts to replace the gravid uterus when retroflexed and held down beneath the sacral promontory, the advantage of placing the patient in the knee-and-shoulder position, and assisting the rotation of the fundus round the projecting point by means of one or two fingers in the rectum, facilitates very considerably the reduction of the displacement, and lessens materially the risk of inducing a miscarriage. I have succeeded by this method in replacing the uterus when all ordinary attempts *per vaginam* had completely failed; and by keeping the patient as much as possible in the prone position for the next week or two, and taking care not to allow the bladder to become overdistended, a return of the displacement has been avoided.

In some cases of retroflexion of the gravid uterus, the employment of an India-rubber ball-pessary, placed in the rectum after the bowels have been well relieved, and worn continuously for several hours at a time, has been productive of marked benefit, and has availed where other vaginal supports have failed, or have been deemed unsuitable.

In operating for recto-vaginal fistulæ and in bad cases of ruptured perinæum, where the recto-vaginal septum is split up for some distance, the plan of bringing out the ends of the suture *per rectum*, instead of as usual through the vagina, has many advantages to recommend it—not the least being the facility in removing the stitches, more especially those occupying the position of the sphincter ani behind those placed in the perinæum.

In operations on the rectum, the practice hitherto has been to confine the bowels, by means of opium and a carefully restricted diet, for at least a week. To this practice may often be ascribed the failure to obtain adhesion by the first intention, or breaking down of the adhesions the very first time the bowels are relieved. It has recently been proved that a regular daily evacuation of the bowels, by means of small doses of castor-oil or some gentle saline aperient, favours the healing process, lessens the tendency to unhealthy inflammation, and consequent non-union of the parts, and obviates the risk of the adhesions breaking down by the passage of the hardened mass of fæces that had been allowed to accumulate in the rectum, or by the distension of the bowel by an enema administered by a careless nurse. This mode of practice will, doubtless, approve itself to many operators, and certainly deserves a more extended trial.

It is principally in its bearings on pelvic distress that I am desirous of indicating how much may often be gained by a proper attention to the rectum. How frequently does it happen that patients come to one complaining of pain in the left side, bearing down, dragging, uneasy sensations in the left iliac region, almost invariably ascribed to some uterine disorder, and yet, on examination, the uterus is found to be normal as regards its position and condition, as far as can be ascertained by ordinary methods of examination. It is in these cases that the judicious administration of tonics and aperients is of so much value. In many instances, tonics alone, in the form of iron and quinine, are ordered with the effect of increasing the constipation already existing, and aggravating rather than diminishing the distress complained of. I could instance scores of cases where, failing to detect any sufficient cause in the condition of the uterus to account for the distress complained of, I have contented myself with ordering a combination of the sulphates of magnesia and iron in small but repeated doses, with the effect of entirely relieving the bearing down and discomfort that had for so long a time been present, and to remove which local treatment had in vain been resorted to.

Distension of the large bowel by flatus and accumulation of fæces, I feel sure, plays an important part in the symptomatology of female disorders, and is too little recognised by most practitioners. Many an intractable case of imagined uterine mischief will improve rapidly by proper attention to the lower bowel; and many a case of confirmed uterine disease, such as chronic metritis, as usually understood, may be materially benefited by giving the rectum due consideration.

Dr. Lockhart Clarke, in the BRITISH MEDICAL JOURNAL (August 8th, 1874), relates a most interesting case of nervous disorder from constipation, relieved by purgatives. A married female suffered from occasional headaches and giddiness, great confusion of mind and depression of spirits; the sight became affected, so that she was unable to read or do needlework, and objects appeared double; there was extreme drowsiness and other well marked symptoms. A few doses of calomel and colocynth, with turpentine and castor-oil enemata, succeeded in removing an enormous collection of fæces; and, in the course of a fortnight, all the nervous symptoms had subsided and the patient was convalescent.

As regards the question of absorption by the rectum, every experienced practitioner can testify to the fact. I have at present a patient under observation recovering from pyæmia, following abortion induced by a midwife, where for a whole fortnight life was sustained by means of nutrient enemata alone, the stomach rejecting every attempt to administer even the lightest forms of nutriment. The patient is now recovering from what would otherwise have proved inevitably a fatal attack.

I could cite numerous instances in which a suppository containing two grains of the extract of belladonna has produced all the toxic effects of this agent—dilatation of the pupils, delirium, dryness of throat, inability to swallow, palpitation, swelling of the face and hands, dyspnœa, restlessness, and other well known symptoms.

Ergot, administered *per rectum*, either as suppository or enema, exerts, in cases of subinvolution and uterine hæmorrhage, a marked influence in inducing uterine contraction, and may safely be relied upon where, from irritability of the stomach or for other reasons, it is not deemed advisable to administer it in the ordinary way. As regards the relative power of absorption of the rectal mucous membrane as contrasted with that of the stomach, experiments tend to show that the disparity is far less than ordinarily imagined. In the *British Pharmacopœia*, the enema aloes consists of forty grains of aloes, whereas the ordinary dose of this drug in pill seldom exceeds one to two grains. This enormous quantity—forty grains—cannot possibly be absorbed; for, before sufficient time has elapsed for this to take place, the few grains actually absorbed exert the desired effect, and the surplus is discharged, and thus prevented from exercising any influence.

It is equally so with the one ounce of sulphate of magnesia or of turpentine, as ordered; a smaller quantity accomplishes the desired object, as I have often proved by practical experience. Twenty minims of tincture of opium will exert as beneficial an influence in relieving pelvic pain as if administered by the mouth; in fact, more so, as its influence is local as well as general. And I may here mention that, if a mass composed of one part of gelatine and four of glycerine be used in lieu of the ordinary cocoa-butter, the effects produced are far more uniform. Absorption of medicinal agents is thus facilitated, for it needs but a very superficial knowledge of physiology to understand how much more likely any agent we may wish to employ is taken up when a watery, instead of an oily, menstruum is employed.

In cases of menorrhagia, an enema of ice-cold water will often effectually stop hæmorrhage that has resisted acids, astringents, oxytoxics, and other remedies; and even in *post partum* hæmorrhage this expedient is of great service. In dysmenorrhœa, a suppository of half a grain of morphia with one-twentieth of a grain of atropine, inserted at bedtime, will often allay the most severe pain, and enable the patient to procure sleep when otherwise she would have been in agony the whole night, the stomach itself refusing to absorb anodyne mixtures, rejecting them as soon as swallowed, and thus cutting the patient off from the ordinary means of relief.

In other cases of painful menstruation, an enema of as hot water as the patient can comfortably bear, combined or not with half a drachm of laudanum, will often relieve the distressing aching and weariness that at times accompany this function. In others, the ordinary enema (thirty grains) assafœtidæ of the *British Pharmacopœia* affords marked relief.

Even chloral and bromide of potassium have been used with benefit; but, as far as I have been able to judge, their action is more uncertain and less to be depended upon than that of some preparation of opium. Hydrocyanic acid has been tried, but this is too hazardous a mode of treatment to be of general application.

In the morning sickness of pregnancy, when nothing can be retained on the stomach, an opiate suppository or enema will often act like a charm, and restrain the most intractable vomiting; and life may be sustained for many weeks by nutrient enemata. In cases of advanced carcinoma uteri, where sickness is a prominent symptom, relief from this, as well as the distressing pelvic pain, may often be obtained by means of opiates, administered *per rectum*, either as suppository or enemata.

In many cases of chronic constipation, a small suppository of a grain of extract of belladonna, passed *per anum*, will ensure a comfortable action of the bowels in less than an hour, when otherwise strong aperient medicine often fails. The same may be said of soap: it is a common custom with nurses to resort to this expedient with children. Diseases of the rectum itself, producing a feeling of discomfort, tenesmus, bearing down, fulness, weight, pain in the lower portion of the spine, and other well known symptoms, have often been mistaken for uterine disorder, and, the nature of the malady not being recognised, treatment has proved of no avail. It is only by ascertaining correctly the exact condition of affairs that we can hope to pursue a rational method of treatment. I have met with numerous instances where hæmorrhoids, unsuspected alike by the patient and practitioner, have in reality been the exciting cause of much imagined uterine disorder, and the judicious administration of the confection of senna, pepper, and sulphur relieved symptoms that had hitherto proved intractable.

Fissure of the rectum often causes most distressing symptoms of vaginismus, and needs but to be recognised to be relieved by the most simple operation—dilatation or incision. Ulceration of the rectum, producing burning pain in the left iliac region, dyspareunia, dysmenorrhœa, and frequently menorrhagia as well, has often been overlooked and its existence never suspected, until a careful examination *per rectum* has proved that the symptoms complained of were due to this, and not to any uterine disorder; and a slight incision through the sphincter ani, with proper attention to the regulation of the bowels, has effected in a few days what months of treatment directed to the uterus alone had failed to accomplish.

In some instances, mere forcible dilatation of the rectum, with subsequent injections of some astringent lotion, and ensuring a semisolid condition of the fæces by means of guaiacum or some simple aperient, are all that are requisite to effect a cure. The application of the nitrate of silver to the ulcerated surface is alone sufficient in many cases to afford relief and promote the healing of the ulcer.

The limited time at my disposal for reading any communications at this meeting prevents my giving anything like an exhaustive paper upon this really practically important subject. If I have succeeded in indicating how much may be accomplished by directing attention to the rectum in many female disorders, both as regards diagnosis and treatment, my object will be attained. I could, did time permit, illustrate these brief remarks by many striking cases; but for the present I must rest content with having endeavoured to prove that the subject is well worthy of your consideration, and I trust you will not deem the time wasted in listening to the above remarks, or think them unworthy of recognition.

ON PLEURITIC EFFUSION.

By JOHN RICHARD WARDELL, M.D., F.R.C.P.,

Physician to the Tunbridge Wells Infirmary.

[*Continued from p.* 680 *of last number.*]

IN some instances, the effusion consists almost entirely of *blood*. In the young gentleman case No. 16, at the second operation of paracentesis, a pint of what seemed to be pure blood came away. When such is the fact, malignant disease is often suspected; but, when the pleura is in no way involved in any carcinomatous affection, there may be sanguineous serosity; and such statement holds good, according to my own observations. Laennec and Andral long ago pointed out that an inflamed pleura may give off an effusion of blood. MM. Thiers, Tardieu, and Aran, have related such examples; and MM. Guillot and Leroux have recorded the history of an epidemic of measles during which several children died of hæmorrhagic pleurisy. Rokitansky says that chronic inflammation of the pleura frequently gives rise to hæmorrhagic effusion. Sanguineous coloration is not very unusual in tubercular pleurisy, and it is common in malignancy within the thorax. Hasse gives it as his opinion, that blood may transude into the cavity; and he speaks of an entire effusion consisting of pure blood, which separated into serum and crassamentum. The causes of blood being found within the chest when pleurisy exists may be from other conditions than a transudative change in the membrane. It may eventuate from the laceration of small vessels in the adventitious and pyogenic deposits after some extra exertion, or from coughing. Again, the lung, by its expansion, may tear the semi-organised structures by which it has been bound, and thus hæmorrhage would occur. Sometimes the introduction of the cannula wounds a branch of the intercostal artery, or pierces a morbid and vascular growth, and blood becomes mixed with the other liquid contents of the chest. In such instances, coagula are formed, and these gravitate to the base.

It is still a matter of dispute as to whether *gases* can be evolved into the pleural sac when there is no solution of continuity during life. Hodgkin and Andral do not believe that gases can be in the living subject generated within a short serous sac. Rokitansky thinks they may.

When gases are discovered in this cavity, it is most probable that some overlooked but small ulcerous orifice has existed in some bronchial tube. A small opening would be sufficient to take in much atmospheric air, and thus the decomposition of incarcerated fluids would be favoured. This, however, is a question which modern pathologists have not settled.

The fluid present, as I have already observed, and more especially if in notable quantity, cannot remain long and harmlessly in the pleural cavity; indeed, the longer it there remains, the less amenable will the complaint be to treatment. The liquid itself becomes debased, and acquires deleterious qualities after its removal from the circulation, and various pathological changes of necessity eventuate. The mechanical inconveniences exerted upon vital organs ere long become marked and manifest. The dislocation of the heart, particularly in left pleurisy, and the torsion of its great vessels, and the compression of the pulmonary substance to the partial or absolute exclusion of air, produce grave effects, and tend to syncope and asphyxia. If the natural effort of absorption be protractedly carried on, the general health succumbs, as proclaimed by facial pallor and hectic, emaciation, and the declension of vital power. The binding down and condensation of the lung-tissue keep surfaces apart which normally glide with smoothness over each other, a vacuum is established, and the lining membrane which bounds the cavity takes on a persistent secernent function. If the pent-up fluid can find no ready exit, that natural law in the organism which is seen in an ordinary abscess comes into force. Pressure upwards and outwards is made when its escape is as a natural effort attempted where there is the least resistance, and thus it is that an empyema at length points in the thoracic wall, or, what still more frequently occurs, the fluid finds a passage through one or more of the bronchial tubes. Duroziez relates the sudden and spontaneous evacuation of an empyema by the bronchial tubes, in a man aged thirty-two, who recovered. (*Bull. de l'Acad. de Méd.* xxxiv, 71). This mode of its escape was well shown in a case not long ago. On August 26th, 1873, Dr. Farrington of Penshurst requested me to see with him a boy ten years of age, who had had a recent attack of pleurisy, and on whose left chest there were all the physical signs of effusion. Dr. Farrington very properly regarded the case as suited for paracentesis. On the following morning, when we met, it was reported that a pint of purulent matter had come up, suddenly after coughing, during the night. The patient coughed up more at our visit, and this was most fœtid and offensive pus. By this unaided mode of exit, the drainage was continuous and complete. Dr. Farrington wrote to me, October 23rd following, and said, "the boy has quite recovered". The pus may burrow through the diaphragm, but this mode of its evacuation is exceedingly rare. When there is pointing on the chest-wall, so far as my own experience warrants the opinion, its place of election is mostly at the fifth interspace, somewhere between the mesial line and the costal angle. It is sometimes at the base. If the morbid process be allowed to continue, and the evacuation of the fluid be not anticipated instrumentally, caries of one or more ribs is a common occurrence. The periosteum is pressed upon, becomes ulcerated, and the ossified tissue soon becomes similarly affected. Thus nature establishes a fistulous opening, if the surgeon do not interfere. I have in some other cases known an empyema empty itself through the lungs, and full recovery succeed. It is possible that pus may be removed by absorption alone, and even when the quantity is by no means inconsiderable. As it has been suggested, the power of endosmosis and exosmosis may aid in such removal; and the experiments of the late Professsor Graham may be considered to add confirmation to such belief. In chronic cases, and in empyema, when the fluid has been absorbed or taken off by the cannula, and the conditions of amendment set in, there generally remains more or less of dulness at the base. Sometimes, after what is regarded as full recovery, some of such dulness continues. This is consequent upon free albuminous masses gravitating to the lower part of the chest, where, being placed in contiguity with false membranes, they become organised. And adhesion to the lower costal and diaphragmatic pleuræ, often by thick membranous folds, is another condition productive of such dulness.

There is no doubt that, in the tubercular diathesis, empyemic effusion is not unfrequently followed by pulmonary phthisis. Tubercular granules are seen not only in the pulmonary substance, when the lung is not absolutely compressed or carnified, but they form as metamorphoses in pleuritic coagula and in pseudo-membranous formations in their varied conditions of organisation. In pyopneumothorax, when the secretion is particularly prone to decomposition, and when deleterious and irritating matters are transferred into the circulation, a dyscrasia supervenes which favours any diathetic tendency to tuberculosis. I have in several instances known an empyema to be followed by phthisis. In one young gentleman, in whose case I was from time to time consulted, he got on pretty well so long as he merely had a fistulous opening with a compressed lung, but, when tubercles became deposited in the other lung, attacks of threatened asphyxia came on, hæmoptysis succeeded, and, after a copious hæmorrhage, he rapidly sank. By a parity of reasoning, it is not improbable that the hitherto sound lung should become diseased. A lung that is overworked, like any other organ which is overworked, acquires a tendency to lesion, and more especially to some of those heterologous changes which are degenerative. We know that, after middle life, excess of cardiac action is liable to produce the fatty decay in the left heart; that a liver which, by the patient's long residence in a tropical climate, has had a continuous excess of function, is apt to become hypertrophous by the inordinate growth of the areolar and filamentous tissues; and that protracted cerebral stimulation favours degenerative alteration in the basic arteries, and is followed by abnormality in the cerebral cells; hence this compensating exertion in one lung which is compelled to do the office of two, not unfrequently takes on tuberculisation. I have before remarked, that pulmonary tuberculisation is not unfrequently the forerunner of pus in the pleuritic cavity. In a long-standing empyema, we may always be suspicious of phthisis coming on, to be the fatal winding up of the case. In persons of strumous diathesis, as observed by Trousseau, latent pleurisies are themselves the expression of phthisis; and on this point he quotes from Stoll, "*Est* (*pleuritis latens*) *sæpe chronica, non raro hæreditaria, tumque in phthisin terminanda.*" If, then, as some authorities are of opinion, the absorption of pus in an empyema is liable to produce tubercles, a cogent reason is supplied, in addition to others, why a puriform collection in the chest should not be allowed there to remain. I believe that the strumous taint in children is the most fertile of all causes in the production of secondary pleurisies in these little patients. It sometimes happens in those instances, in whom there has been effusion in the pleural cavity, and when absorption has nearly or wholly removed the fluid and hopes are entertained of full recovery, that phthisis sets in. The efforts made by the system to carry off a large extraneous product, and the irritation which is thus conferred by noxious materials being taken up, make such a demand on the general powers of the organism, as to break down the health, and bring on that lowered vitalism and those malassimilative functions which are frequently followed by tubercle.

In those cases which terminate in recovery, one of the most notable, and in many instances, it may be added, one of the most desirable results, is that of *contraction.* In examples of the chronic class, when the fluid has been removed by absorption or by the cannula, and when the adventitious coverings of the lung and the false membranes by which it is bound down, are such as to overcome the efforts of expansion; and, more especially, when a greater or less degree of complication of the pulmonary substance exists, a vacuum is created, and particularly when the ribs are elevated and the diaphragm is depressed. The pressure of the atmosphere on the external thoracic wall drives the ribs inwards, at the same time approximating their edges. Again, as Stokes observes, the diaphragm and the intercostal muscles, by having been stretched by the presence of fluid, and, it may be, having been injuriously acted upon by the decomposing effusive products lying in contact, become paralysed, and lose much of their contractile power. Thus, another pathological cause is given to account for the driving in of the chest-wall. When this flattening has taken place, the ribs remain in the position of forcible expiration. The thorax may be thus narrowed by a couple of inches or more in the transverse or longitudinal diameter. In children, this deformity is sometimes very considerable, because the white tissues are more developed in children, and hence there is less resistance. In adults, and old people, the parietes are more rigid, and it is thus in them deformity is less common and less easily effected; there is also a lessened chance of the pleural or costal surfaces being so brought into contact as to obliterate the vacuum and arrest the process of a secreting cavity. When, in empyema, a large secreting surface has for long thrown out pus, and nature attempts a cure, there is an aim at cicatrisation as there is in ordinary abscesses. The membrane contracts with concentric effort, and union would readily be accomplished if it were not for bony rigidity. Rindfleisch well describes what takes place in this complaint. "This huge cicatrix", remarks this author, "contracts like any other scar, and causes mechanical efforts of an imposing order. It is an admirable illustration of the gigantic results which nature is able to produce by the additional repetition of fractional movements of the same order; and yet, the resistance to be overcome during the healing of an empyema which has opened externally, is nothing less than that of the vaulted arches of the thoracic skeleton which have to be dragged onwards, in a direction, that is, which the whole aim of their being is to resist. There is an erroneous impression afloat, that the cicatrising process is able to help the expansion of the collapsed lung. But experience teaches us, as might have been expected *à priori*, that it is the fibroid tissue which serves permanently to compress the lung. Sooner than allow any such expansion, the remaining thoracic viscera, *sc.*, the heart, are dragged over to occupy the space which was formerly filled by the collapsed lung. No Torricellian vacuum is produced. The stress is borne by the neighbouring organs, which are dragged out of their places. The fibroid sac, into which the pleura has been converted, must and will contract, just as an urinary bladder contracts; and this contraction occurs with such force, that not only are the soft and yielding thoracic organs compelled to follow it, but the ribs also are dragged downwards and inwards till they overlap one another like the tiles on a roof; the vertical column itself undergoing a corresponding curvature. At the same time the size of the cavity is proportionately lessened, a few drops of pus only occasionally dribbling from the fistulous orifice, and the process of repair is brought to a close by the total obliteration of the cavity."*

With regard to the treatment to be observed in pleuritic effusion, it is, of course, to be presumed, that the usual remedies applicable in the preceding and acute stage have already been employed. To maintain the general strength and to promote absorption, are the chief objects to be held in view. It is quite evident, from the results which obtained in the majority of the above-recorded cases, that, in many instances, the absorbents will take up very large quantities of effused products into the thoracic cavity, and if a cure can be effected in that manner, such is preferable to operative measures. Sutton advocates absolute rest, and says many cases may recover by absorption. In eleven, or nearly two-thirds of the examples before given, the powers of absorption were relied upon and with success. In Nos. 1, 2, 3, 4, and 5, the fluid soon disappeared. In case No. 9, there was considerable effusion, not only into the left thorax, but into the pericardium, and at the end of three months no indication whatever of fluid remained. In the young gentlemen No. 10, a few weeks sufficed to effect full recovery, when it was very clear that he had had liquid in his chest from the attack of acute pleuritis which he had six months prior to my seeing him. In the patient No. 11, absorption under the treatment to which he was subjected dispersed an effusion, which, as Dr. Fuller concurred with me in believing, had been in the pleural sac for nearly three years The dyspnœa, inability to lie on either side, and occasional feelings of suffocation, soon became mitigated after being treated according to the means reported in his case. In cases Nos. 12, 13, and 18, unequivocal evidence was, by the results, supplied of the efficacy of the remedies. All cases do not, however, respond, like those now cited, to mere medicinal measures. Much discrimination is required in the selection of those patients in whom absorption may be trusted to, and there are certain conditions of negative and positive character which ought to be well and duly considered. If the fluid be not large in quantity; if the line of dulness do not ascend higher than one-third of the thoracic wall; if we believe the product to be serum, and if there be not quick pulse, excess of temperature, with other phenomena of symptomatic fever; if there be no marked disturbance in the respiratory functions; and if the patient appear to be a person of good and unbroken constitution, then absorption may be decided upon, and with much probability of success. I have already impressed upon the reader the fact that, in some instances, even a very moderate amount of fluid will cause great irritation, as if the organism from some ill understood condition—some idiosyncrasy—were intolerant of the presence of this product in one of its cavities though placed without the current of the circulation. Such peculiarity would constitute a cogent reason for the more speedy effect of instrumental interference. Again, when the amount is very large the effects of medical agents are not to be waited for, and thoracentesis becomes imperative. The same rule should be observed when we have good reasons for the supposition that the effusion is purulent. I feel certain, from a rather extensive experience in this affection, that, whatever medicines be prescribed or whatever general means be adopted, the patient should be kept as *quiet* as possible; in other words, the heart's action should remain subdued, because vascular excitement favours the exudative process. Moderate open air exercise, in order to maintain the general health, is to be observed, but such should always be of passive character. Quiet and warmth tell for more in this complaint than is generally suspected.

The remedy which I believe to be more efficacious than any other drug is the tincture of the perchloride of iron. I have generally ordered it in combination with quinine, or in some bitter effusion, such as of quassia or calumba, with chloric ether. In those examples in which there is marked anæmia, iron is indispensable. If the process of digestion be feeble, a few drops of the liquor strychniæ may be added to each dose. In children and those of strumous habits, the syrup of the iodide of iron and Easton's syrup, which contains iron, phosphorus, quinine and strychnine, are given with good results. Parrish's chemical food immediately after meals is to be commended. In many, or perhaps it may be said in nearly all cases, cod-liver oil should be ordered at the same time; this, however, will depend much on the state of the tongue. In instances of long standing effusion, I have repeatedly remarked that the patient has complained of acid eructations with continued flatulency. In such cases, lime-water, or the carbonate of potash or soda, may for a time be taken, and the liquor bismuthi et ammoniæ citratis is a good preparation. The oil should be withheld until the digestive organs become improved. When there is no renal complication, and the powers of the patient have not succumbed, the ordinary diuretics, such as the acetate of potash, with liquor scoparii, spirits of juniper, and the preparations of squills and digitalis, may be tried; and, with such of these as may be prescribed, from three to six or eight grains of the iodide of potassium should be given every six or eight hours. The diuresis may be promoted for a time, then given up, and resumed again, according to the measure of the patient's strength. The bowels should be maintained in moderate action, and from time to time small doses of blue pill may be prescribed to stimulate the liver, because, when rapid absorption is going on, that organ should efficiently discharge its functions; in fact, the great secernent organs and the emunctories should be placed under the most favourable conditions for the elimination of excessive and effete materials. It is advantageous, also, that the patient should occasionally have a warm bath, and daily ablutions with tepid water are desirable.

With regard to external applications, counterirritants and vesicants have long been held as favourite remedies. Flying blisters have also been much used. Some writers are of opinion that the old-fashioned mode of blistering ought, in this affection, to be discouraged. My own experience is not so absolute. I think, after other remedies have been employed, and absorption has taken up the greater part of the fluid, that vesication aids in the promotion of cure; nor is it well to entirely discard a practice which has the recommendation of ancient usage, without a sufficient accumulation of facts to warrant the decision. In cases, Nos. 1, 2, 3, 9, and 10, blistering was of undoubted service. In case No. 9 it was eminently efficacious. The patient, as evinced by the pulse, the respiration, and other concomitant symptoms, was evidently in extreme peril. A large blister was applied over the seat of lesion, when marked and very decided relief immediately ensued. The amendment was dated from the application of that remedy. In the generality of cases there is no agent on which I would place more implicit reliance than iodine. When Dr. Fuller met me in the instance of the gentleman, No. 11, he told me of the advantageous mode of using iodine in this complaint when considerably diluted. He used it in the proportions of one of the tincture to seven of water. In such strength it does not vesicate, the cuticle does not desquamate at all, and the cutaneous surface can take up more of the remedy. The half-waistcoat, consisting of two thicknesses of flannel backed with calico, becomes saturated with the drug, and an increase of warmth is locally maintained. I have since, in several cases, thus applied the iodine, and some of my medical friends have done so with beneficial effect. The iodine thus applied is the best mode of procedure at the outset. The ordinary iodine ointment of the *Pharmacopœia* can afterwards be substituted, and the friction may also aid in the good effects. The diet should be light and nutritious; all such articles being carefully avoided which are calculated to disorder the digestive organs. With regard to stimulants, I believe good port wine to be the best, a pretty generous allowance of which tends to sustain the vital powers and to expedite recovery. When the stomach is weak and irritable, and the appetite capricious, some of the sparkling wines may for awhile be substituted, or Bass's or Allsopp's bitter beer may be instead ordered. When this affection occurs to those whose circumstances allow of any recommendation which the physician may suggest, and when absorption has been effected, there is no doubt but a residence during the following winter in a warmer climate is to be recommended. When a lung has been long pressed upon, and its functions have for long only been partially performed; when lesion has existed in the thorax and in chronic form; and, especially, when there has been a greater or less degree of solidification in the pulmonary tissues, there is no doubt that the irritation thus instituted is such as to favour tuberculisation. Phthisis is the sequent to be feared. An equable and higher temperature, by determining the blood to the surface; the non-irritant properties of a milder atmosphere; the greater opportunities which the patient has of being in the open air, and thus reinvigorating the system; and the light and cheerfulness of a sunnier clime, are extraneous conditions which favour amendment. Pau, Algiers, Egypt, or the Riviera, are places where the patient might repair to with every hope for the re-establishment of his health.

[*To be continued.*]

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* *Manual of Pathological Histology*, Sydenham Society's translation, vol. i, pp. 326-27.

RETROVERSION OF THE GRAVID UTERUS; USE OF ASPIRATOR: RECOVERY.

By ANTHONY BELL, L.R.C.P.Ed.,
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A CASE of this kind, presenting some peculiar features, recently occurred in my practice. On August 4th, I was requested to see Mrs. F., in conjunction with her medical adviser, Mr. Foster. I found her extremely weak and emaciated; pulse 140. Her lips were much excoriated; urine was dribbling away, mixed with fœtid pus. On introducing my finger into the vagina, it came into contact with its posterior wall, in the shape of a firm globular body resting against the neck of the bladder. The os uteri was high above the symphysis pubis. Examination by rectum showed that a large fluctuating tumour occupied the pelvic cavity, completely blocking up the anus. The nature of the case was thus confirmed beyond the possibility of doubt. From her medical adviser I learned that he had been summoned on May 3rd, and found her suffering from severe abdominal pain and difficulty of passing urine. At that time, she had been pregnant about seven weeks. He was again summoned on June 3rd, and found her completely prostrate and in great agony. He drew from the meatus urinarius a large quantity of soft membranous substance, which was followed by a loud splash of foul ammoniacal urine.

August 5th. The patient was put under chloroform and the bladder emptied. I could pass my two hands deep into the pelvis, and could compress the abdominal aorta at its bifurcation. A firm tumour could be felt low in the right inguinal region, over which a loud *bruit* could be heard, caused, no doubt, by the pressure of the tumour on the iliac artery. The patient being in the obstetric position, the anus was found dilated to an inch and a quarter in diameter by the fundus and its contents, and the posterior wall of the vagina protruded externally. My right hand, warmed and oiled, was introduced into the vagina, and two fingers of the left into the rectum. A careful and determined attempt was made to replace the uterus, but failed. An anxious question now presented itself as to the course to be pursued. Having carefully weighed the whole bearings of the case—(*a*) the probability of adhesions from the repeated attacks of peritoneal inflammation; (*b*) the ulcerated state of the bladder, the patient passing foul ammoniacal urine containing large quantities of pus and sometimes blood; (*c*) the inflamed state of the vaginal parts; and considering, above all, the exhausted condition of the patient—I decided to draw off the liquor amnii through the rectum by the aspirator. The parts were well sponged, and a fine needle (never before used) was thrust home to the fluid, nearly two pints being quickly drawn off. The head of the fœtus could now be felt through the rectum. An opiate was administered at bed-time.

August 6th, 11 A.M. Pulse, 112; temperature, 99. There was no abdominal pain, tenderness, or sickness. The opiate was repeated. At 9 P.M., uterine action set in. The pains steadily increased until 8 A.M., when she was delivered (feet-presentation).

August 7th, 11 A.M. Pulse, 140; temperature, 100. There was no pain or abdominal tenderness. The opiate was repeated.

August 8th. Pulse, 120; temperature, 98. The opiate was repeated.

August 9th. Pulse, 116; temperature, 96. She had a good night, and expressed herself as feeling much stronger.

August 12th. Pulse, 120; temperature, 100. The urine was highly alkaline, containing a large quantity of fœtid pus. I ordered mineral acids.

August 18th.—Her medical attendant reported that she steadily improved. Pulse, 100. For a fortnight, she was kept entirely on slop-diet, consisting of strong beef-tea, milk, and farinaceous food.

August 29th. The patient was now able to go about in her usual way, and proposed to go into the country.

It will be seen from the above statement that not one unfavourable symptom followed the operation, the state of the pulse and temperature being such as might be expected from the exhausted condition of the patient and the diseased state of the bladder. As I believe this to be the first case that has been treated in a similar manner by means of the aspirator, and as the result of the operation has proved to be so safe and successful, I have been induced to state it fully and accurately, in the hope that the merits of this mode of treatment might be compared with the recognised treatment in similar cases.

Dr. Philipson, of the Newcastle-upon-Tyne Infirmary, to whom I submitted the fœtus, was kind enough to examine it, and reported to me that, from its characteristics, it seemed to be of the age of about five months of utero-gestation; that the forehead, instead of being arched, was flattened, and the whole cranium antero-posteriorly compressed. The body and limbs also, especially the upper extremities, were very much distorted.

CLINICAL MEMORANDA.

POISONOUS MUSHROOMS.

IN reply to Mr. Cuffe, I regret to say that I had not an opportunity of examining the vomited mushrooms. They were obtained, as I was informed, from an Italian warehouseman, and from those purchased my patient, who is familiar with the appearance of good mushrooms, selected two or three of the finest. These possessed the qualities, viz., agreeable odour and flavour, which Mr. Cuffe lays down as unerring evidence of edible fungi; and, since no ill effects are known to have accrued to other persons who bought from the same batch, it appears to me that no sufficient evidence exists that they were otherwise than true mushrooms. The similarity of the symptoms in my case to those of Mr. Sedgwick's patient suggested to me the reporting of it.

It will be remembered that an eminent Scottish botanist was nearly poisoned in the early summer, and required, among others, the attendance of Sir R. Christison, in consequence of partaking, as was supposed, of a *lycoperdon* which was over-ripe, although actually, if I mistake not, engaged at the time in preparing a lecture on "Edible Fungi".

Whether or not the symptoms in my case and Mr. Sedgwick's are to be explained on the assumption, that an otherwise wholesome article of diet excited a pre-existent tendency to disease in the system; or that, from some condition of habitat, atmospheric, or other cause connected with growth, or too long keeping, otherwise wholesome mushrooms become unfit for food, I cannot pretend to decide. My object was to show how desirable it is for the future that all such cases should be investigated and recorded for the advancement of practical medicine.

EDWARD DRUMMOND, M.D., Royton.

THE CHROMIC ACID REACTION WITH ALCOHOL.

I THINK it possible there may be some misunderstanding about the chromic acid reaction with alcohol in the urine. Almost every urine shows a certain amount of reaction, unless it be first distilled and the distillate operated upon. Even then Dupré found a slight indication of some substance giving the reaction when no alcohol had been taken; but the quantity was too small for examination, and its presence has not been detected by Dr. Parkes in his numerous experiments here. In undistilled urine, the reaction is due (in the absence of alcohol) to uric acid, or any other oxidisable matter that may exist there. Finding in some experiments on myself, that the reaction was present in undistilled urine even sixty hours after any alcohol had been swallowed, I tried the test with what oxidisable substances there happened to be at hand, and found the reaction given with the following:—Uric acid, oxalic acid, oxalate of ammonium, sulphuric ether, benzoic acid, starch, gum-arabic, cane-sugar, and milk-sugar. There was no reaction with pure urea—a non-oxidisable substance. The reaction, therefore, as a test for alcohol, must be looked for in the distillate of urine only, in which case it may probably be depended upon. At the same time, it is possible that any volatile substance swallowed, and capable of being passed off by the urine, might interfere with it; but, as such substances are generally odorous, the smell of the distillate would probably enable the observer to detect them.

F. DE CHAUMONT, M.D., Army Medical School, Netley.

GENERAL IDIOPATHIC EMPHYSEMA.

THE following case, which was related at a meeting of the East York and North Lincoln Branch of the Association, will, I think, throw some light on the remarkable facts recorded by Dr. Burman under the above heading in the JOURNAL of November 7th. On January 24th, 1872, I received an "order" from the dispensary to visit Eliza Taylor, aged 35, and saw her within an hour. She was lying in bed, and evidently dying; her face and lips were livid, respiration was hurried, and no pulse was to be felt at the wrist. Her neck and the upper part of the chest in front appeared to be swollen, and, on applying my hand, crepitation was most distinctly felt from the presence of air in the cellular tissue. This crepitation was so abundant, as to prevent auscultation with the stethoscope; but, by applying my ear, the respiratory sounds, though feeble, could be distinctly heard. On inquiry, I learnt that she had been prematurely delivered of a still-born and fœtid child four days previously, with the assistance of a midwife; that it was a cross birth; that labour had been very protracted; she was much exhausted after delivery, and rapidly got worse. She was a married woman, mother of seven children, and previously in good health; neither had she met with any accident or injury likely to account for her condition. She died in an hour after my visit, and I communicated with the coroner, believing the emphysema to be indicative of some injury to the respiratory organs. The *post mortem* examination was made twenty-four hours after death, and decomposition had then advanced very far, the corpse presenting a fearfully bloated appearance, from the universal and extreme distension of the skin with gas, even down to the fingers. On opening the chest, nothing abnormal was discovered, except vesicles of air in the cellular tissue on the surface of the lungs, movable under the pressure of the finger, and evidently resulting from decomposition. The liver was studded with small yellow spots on its convex surface, each of which consisted of a little vesicle of gas surrounded by a minute quantity of yellow puriform fluid. The substance of the organ was also very soft and friable, and its central and posterior parts were almost honeycombed in appearance, from the presence of numerous larger cavities containing gas without any fluid. The uterus was large and distended with gas; when it was laid open, a most intolerable fœtor escaped, and some decomposed clots of blood adhered to its lining membrane. All the other organs were healthy. The case appeared to me to resolve itself into puerperal fever, or blood-poisoning, from the absorption of putrid matter from the interior of the uterus. It is well known that the bodies of women dying immediately after or during childbirth putrefy extremely rapidly; but I had certainly never seen or heard of a case where decomposition had reached the degree necessary to produce general emphysema previous to death. Yet this view was borne out by the peculiar condition of the liver, which appeared to me only explicable on the supposition that the smaller vesicles on its surface were the product of decomposition, and formed during life, and that the presence of each vesicle of putrid gas had set up suppuration around it. The larger cavities were probably later productions, and may have been formed after death. I would suggest that, in Dr. Burman's case also, the general emphysema resulted from decomposition rather than from an escape of air from the lungs into the cellular tissue, and that the sequence of events was putrid sore-throat, septicæmia, and general decomposition. Certainly, if they were not rotten before they were dead, I am equally at a loss to account for the condition of these patients.

T. M. Evans, Hull.

OBSTETRIC MEMORANDA.

INDUCTION OF PREMATURE LABOUR.

In his last communication, Mr. Clogg brings forward the high rate of infant mortality recorded in my list of cases as a proof of the inferiority of my method of inducing premature labour. I must, therefore, remind Mr. Clogg that, tried by this test, his own two cases, under the "old-fashioned method", do not appear in a more favourable light than mine. In one, it seems, the infant "survived but a few hours", and in the other "three or four days". I cannot undertake to reply to any more strictures of this kind; and, although I do not accuse Mr. Clogg of intentional unfairness, yet I must say, in parting, that captious criticism affords but small encouragement to those who endeavour, as I hope I have done, to give a faithful record of their experience, omitting the details of no case, whether favourable or unfavourable.

J. G. Swayne, M.D., Clifton.

RIGOR MORTIS IN AN INFANT AT BIRTH.

Mrs. W., aged 26, a healthy primipara, sent for me at 9.30 on the morning of April 14th last. She informed me that, at 10 o'clock the morning before, while engaged in some domestic work, the membranes ruptured. She had passed a restless night, on account of movement in the abdomen; whether fœtal or otherwise, she could not say. The labour-pains had begun at 4 that morning. On examination, I found the os uteri dilated to the size of a half-crown, and the head presenting. The pelvis was normal. The labour went on naturally enough till 5 in the evening, when the head had reached the outlet. At 11 o'clock, there being no advance in the progress of the head since 5, and the pains being regular, I resolved to extract the head with forceps. This I did, the patient being under chloroform. The child, a well developed male, apparently at the full time, was dead, and in a state of well marked cadaveric rigidity. The thighs were tightly flexed on the abdomen, and the upper extremities firmly crossed over the chest. The hand was closed, and I opened it with difficulty. I did not ascertain the condition of the muscles of mastication. The recovery of the mother was retarded by an attack of phlegmasia alba dolens.

Remarks.—At the time, I formed the opinion that this was true rigor mortis, and that the head was delayed at the outlet on account of the rigidity of the body preventing the fœtus adapting itself to the maternal passages. It is difficult to say exactly at what hour the child died, although the mother states that she felt no movement during the course of the labour.

Cadaveric rigidity in the infant at birth has been before observed Dr. Taylor, in his *Principles and Practice of Medical Jurisprudence*, quotes a case related by Dr. Chowne, who was "called to a labour, and, when he arrived, the child had been born for three-quarters of an hour, and the midwife was then engaged in dressing it. One arm was a little raised, and the hands were partly closed; these circumstances giving it the appearance of being a living child. He found, however, that it had actually been still-born, and that it had been part of the time in a warm bath. The other limbs were also stiff in about the same degree. The stiffness was unequivocal; there was no elasticity, as if it were the result of spasmodic muscular contraction—a joint being flexed, it remained flexed. The midwife particularly observed the stiffness while the child was in the warm bath. The mother said the child moved very perceptibly to herself not long before its birth".

Writing on cadaveric rigidity, Casper says: "I have never observed cadaveric stiffening in the immature fœtus. Since, however, this phenomenon has been observed by others particularly in maternity hospitals even in such fœtuses, though, as they themselves confess it, it is always in such cases only feeble and transitory, so though we cannot positively deny its occurrence in such fœtuses . . . ." From these quotations, it is evident that the phenomenon in question has been frequently observed, and that it has been considered a true rigor mortis; and analogy would lead us to the same conclusion. It has been suggested, in the Journal of October 31st, by Mr. Ashburton Thompson, that it is "a tetanic spasm which, occurring *in articulo mortis*, is prolonged after death". I do not see that we need go out of our way for such an explanation when we have a phenomenon which usually follows death taking place. I cannot see that the death of the fœtus taking place before it had an independent life makes any difference; for the fact that the child has breathed makes no alteration in the muscular tissue, which is the seat of rigor mortis. The question is, How do we so unfrequently see it? I believe it may exist more commonly than we suppose, as it may escape detection from the rigidity being only feebly marked in most cases, and it is only in those instances where the stiffness is very pronounced that our attention is drawn to it. We must bear in mind the many circumstances in the condition of the mother and of the child, and also as to the time death took place before delivery, which may prevent the rigidity from taking place even to the feeblest extent. It is worthy of remark that, in Dr. Grigg's case, the mother had adhesive phlebitis following delivery, while in mine there was phlegmasia dolens.

P. A. Young, M.D., Portobello, Edinburgh.

RIGOR MORTIS IN AN INFANT AT BIRTH.

In answer to Mr. Thompson's inquiry for fuller information, I now add a complete description of the case. At the time of writing my letter, I was not aware it was such a *very rare* accident as Mr. Thompson decides it to be; for myself, I have still grave doubts, although it may have never been publicly noted before. As the arguments against its being true rigor mortis seem based upon its supposed extreme rarity, I think it would not be uninteresting to hear what has been the experience of other members of the Society, *i.e.*, supposing they deem the matter worthy of their notice.

The child was born by one pain, the only one after rupturing the membranes ten minutes previously. When extracted from the mother, which was done rapidly, it was rigid, with the limbs as already described in my first article. The general appearance and expression of the child was as if it were in the usual convulsive effort preceding crying; and my treatment was based on that supposition. Finding that the usual methods failed in eliciting a cry, I suspected some mucus in the mouth or a spasm of the glottis. I could not succeed in getting my finger into the mouth; thereupon, I divided the cord, to allow some blood to flow (which did not), and again attempted to pass my finger into the mouth, which I did only after some considerable force. I discovered no mucus, nor was the glottis closed, but had difficulty in depressing the tongue. I now began artificial respiration, when to my surprise the upper extremities, which I thought were only convulsively drawn upon and across the breast, were found firmly set. There was no impulse of the heart to be felt; the lower extremities were also stiff, but not so stiff as the upper; the abdominal walls were flaccid. I stayed by the child three-quarters of an hour. The arms had become again fixed, also the jaw, neck, and legs. The abdominal muscles were not affected when I left. If the child had died in the first effort of crying, the abdominal walls would have been drawn in, whereas they rather bulged out. It is quite possible there was a cadaveric spasm *in utero*, but what I saw I am quite convinced was rigor mortis. Is it really necessary to seek some obscure explanation for what I met with? A moment's reflection must show that rigor mortis at birth cannot be very commonly met with; but there is no reason why it should not occasionally be observed. The reason why it was seen so soon after death in this case arose, I believe, from the state of hyperfibrination of the blood as noted in the mother. The fibrine of the blood, as a rule, increases during gestation; but in this case there was an excessive increase.

W. C. GRIGG, M.D.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

SUSSEX COUNTY HOSPITAL, BRIGHTON.

CASE OF CARDIAC HYPERÆSTHESIA: WITH REMARKS.*

(Under the care of Dr. HENRY MOON.)

THE patient, a widow, aged 34, was admitted into the Hospital on September 9th, 1874. She had a good family history, was free from hysteria, and her general health had been good until ten days before, when, for the first time, the catamenial discharge appeared irregularly after an interval of fourteen days only, accompanied with much pelvic and spinal pain. Her countenance was anxious; she had pain in the shoulders and between the scapulæ, in the left mammary region, left arm and side; also difficulty of swallowing, as if the food were obstructed in passing through the posterior mediastinum. The urine was plentiful, but loaded. She had sleeplessness, and a remarkably quick pulse, which might be fairly said to be over 200 in the minute. The contractions of the heart were abnormally sharp and vivid, the organ seeming to spring up with a quick forcible leap against the ribs. The feebleness of the pulse, however, showed how ineffectual the apparently forcible contractions of the heart were. There were no signs of enlargement of the heart, no valve-murmurs, or pericardial rubs. Dr. Moon prescribed linseed-meal poultices over the heart, a warm rhubarb aperient, and ten grains of the bromide of potassium every four hours.

September 10th. She had no sleep. The bowels had acted freely, but her cardiac symptoms were more urgent. In addition, to-day, there was dyspnœa and arthopnœa; the pulse at the wrist was 200 in a minute, small, feeble, and irregular. There was no unnatural præcordial dulness, endocardial murmur, or pericardial rub. The urine was plentiful, but loaded; temperature 99 in axilla; respirations, 20. She was ordered bicarbonate of potash, half a drachm; tincture of aconite, 3 minims; water, 2 ounces—every four hours; and one grain of extract of opium every six hours.

September 11th. She slept an hour and a half at intervals in the night, and said she felt better. Temperature, 101.2 in mouth; respirations, 20; pulse, 200. 9.15 A.M. The tongue was moist, and less coated. The pulse continuing so remarkably quick, she was ordered half a drachm of the aromatic spirits of ammonia, and ten minims of the tincture of digitalis, to be added to the medicine of yesterday.—7 P.M. The stimulant, and the tonic sedative of the digitalis, told remarkably well in pulling the heart together, as it were, and reducing the frequency of the pulse to 150 in the minute, and making it more regular, and less feeble. The bowels not having acted, she was ordered to discontinue the opium pills, and to take half-an-ounce of castor-oil early in the morning.

September 12th. She had slept better. The oil acted three times. She passed sixty-two ounces of high-coloured urine during the last twenty-four hours. The skin was cool and moist; pulse 92, regular. She looked, and said she was, better. The first sound of the heart at the base was louder and somewhat longer than natural. The tongue was cleaning. There was no pericardial rub, difficulty of swallowing, or pain in the side and shoulders.

September 13th. She slept well, and was in every way better. Pulse 80, soft, and regular.

September 14th. The catamenial discharge had reappeared after an interval of fourteen days, accompanied with much pelvic and spinal pain. The pulse, however, was soft and regular at 80. She was ordered fish diet, as her appetite was returning.

September 15th. The pelvic and spinal pains distressed her, and she did not sleep well. Pulse 80, soft, but less regular than yesterday. The cardiac pains had subsided, and the cardiac sounds were natural.

September 16th. She had passed another restless night, in consequence of pelvic and spinal pain. She had a rigor yesterday afternoon. There was a return of slight pain in the right shoulder. The skin was cool, moist; pulse 80, somewhat irregular; and there was a distinct soft systolic *bruit*, loudest at the mid-sternum, opposite the third interspace. She was ordered tincture of digitalis, 10 minims; iodide of potassium, 4 grains; bicarbonate of potash, 10 grains; infusion of orange-peel, 1 ounce—every six hours.

September 17th. She slept better, but complained of severe nervine pain in the right ophthalmic or first division of the fifth nerve, extending to its frontal, lacrymal, and nasal branches. Her face was ordered to be covered with cotton-wool and gutta-percha sheeting.

September 18th. She slept during the night, but the pain in the right side of the face and nose was severe. Pulse 78, soft, rather irregular. A systolic *bruit* was heard at the second right intercostal articulation, but far louder to the *left* of the sternum in the second interspace, and one and a half inches further to the left subclavian region. Six grains of the ammonio-citrate of iron were added to each dose of the medicine. She was ordered to have mutton on alternate days.

September 21st. The catamenial discharge had ceased. Pulse 70, soft, regular; skin cool, moist. There was a systolic *bruit* over the valves of the pulmonary artery, less audible at the mid-sternum, and not heard at all to the right of the sternum. The facial pain was gone.

September 23rd. She was quite well, but weak, and got up. Pulse 70, soft, regular. The iron was increased to ten grains. She continued to improve, and left the Hospital on September 26th.

REMARKS.—This case is singular and of uncommon occurrence, from the fact of the remarkable quickness of the pulse at the wrist, accompanied as it was with symptoms of severe irritation of the cardiac plexus of nerves, such as dyspnœa, orthopnœa, pains in the left arm, in the shoulders, and between the shoulder-blades, and in the mediastinum during the act of swallowing; these symptoms lasting three days and nights, without revealing signs of endocardial or pericardial changes, such as would have resulted if inflammation had given rise to the symptoms. The temperature was but little above the normal standard. The action of the heart became slower and more regular, with comparative rapidity, the pulse having fallen from 200 or more in the minute to 150 in three days, with a corresponding relief to all the cardiac symptoms. In two days more, the pulse reached the natural standard, and all the heart distress disappeared. The catamenial discharge in the meantime set in after a fortnight's interval only, and was accompanied by much spinal and pelvic pain, and on this occasion developed severe nervine pain in the face, nose, eye, orbit, and mouth, from reflex irritation of the fifth nerve, connected with the sympathetic by the Gasserian ganglion. It is curious to observe how one set of nervine pains replaced the others, and doubtless they had the same reflex origin; the irritated uterus being the starting-point in both sets of nervine pain, and the hypogastric plexus the medium of communication; falling heavily in the first instance on the cardiac nerves, and giving rise to the quick pulse and cardiac sufferings, and in the second to the distressing pain on the right side of the face, orbit, and head.

After the sixth day, a soft systolic basic *bruit* was audible, sometimes more distinct at the mid-sternum, at others on the right side of the sternum, and again over the pulmonary valves and to the left of the sternum. I think this to be a functional dynamic murmur, the result of derangement of the apparatus so long subjected to nervine pain; and not dependent on organic changes of the structures themselves. These *bruits* were absent until the second reappearance of the hæmorrhagic dysmenorrhœa.

Unusually rapid action of the heart is of course a common occurrence in low fevers, pyrexia, and sundry nerve-disorders; but it sometimes appears, as in this instance, although very rarely, as the prominent phenomenon, which takes precedence of the others, and forms the distinctive feature of the disease.

The pathology is obscure. Dr. Cotton, who has published during the last few years two cases in the BRITISH MEDICAL JOURNAL, suggests that either the blood may be in an abnormally irritating condition, or the heart unduly sensitive. He admits that his first case had tapeworm; and mine had hæmorrhagic dysmenorrhœa. Is it not likely that the afferent nerves in his case of tape-worm were the solar plexus and splanchnic nerves, and in mine the hypogastric plexus of the sympathetic?

It is, I think, more difficult to understand how the sudden return of the heart to the healthy action is to be accounted for; this very circumstance, as well as the paroxysmal character of the disorder, and the tenour of the associated symptoms, goes far to show it belongs to the neuroses. No other diseases are prone to terminate so suddenly.

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* Read before the East Sussex District of the South-Eastern Branch.

Though our information relative to the innervation of the heart is yet incomplete, we know, amongst many other facts connected with it, that the heart's action is capable of being powerfully influenced by impressions conveyed to it from remote nerves or nervous centres.

DERBYSHIRE GENERAL INFIRMARY.

CASE OF LITHOTOMY: THE NUCLEUS OF THE CALCULUS BEING A PIECE OF ELASTIC CATHETER.*

By J. Wright Baker, M.R.C.S.Eng., Surgeon to the Infirmary.

The case here related is of sufficiently frequent occurrence to be of practical interest to all who are engaged in the general duties of our profession. Every month or two, we see in one or other of the journals reports of cases in which, accidentally or otherwise, foreign bodies have been introduced into the bladder and have been allowed to remain for a shorter or longer time; in most cases till some deposit of earthy matter has encrusted them, and a stone is formed. Such cases, being independent of diet, diathesis, and hygiene, or indeed of any of those general causes which are recognised as being closely connected with the production of stone, may occur in the practice of any of us in any part of the country. Not troubling you with any further preliminary observations, I will at once proceed to state the circumstances of this case, and the comments to which it gave rise.

The patient, a labourer, aged 36, residing in the northern part of Derbyshire, contracted a gonorrhœa about seven or eight years ago. There was much inflammatory mischief, which ultimately resulted in a fistulous opening in front of the scrotum, and a stricture of the urethra, for the relief of which he was accustomed to pass a catheter or bougie occasionally. About five years ago, he was admitted into the Stockport Infirmary, where pieces of stone came away in his urine, and since then, at various times, pieces of stone passed with his urine, or were removed from the urethral fistula in front of the scrotum.

He was admitted into the Derbyshire General Infirmary on October 27th, 1873. He was a middle-sized, well made man, somewhat cachectic looking. His urine was ammoniacal, and was constantly dribbling away. On examination, much pus, mucus, phosphates, and some albumen were found, but no renal epithelium or tube-casts. In front of the scrotum was a large urethral fistula: the inferior surface of the urethra was gone to the extent of three or four lines. The urethra anterior to this was contracted, but easily dilatable by a No. 7 catheter, as also was the urethral orifice at the proximal side of the fistula. On passing the catheter, nothing further was noticed till, reaching the prostate and neck of the bladder, it was felt to glide over some rough surface without difficulty. Digital examination in the perinæum and *per rectum* showed nothing; but, on passing a sound, a distinct chinking was elicited.

A week later, I performed lateral lithotomy on a curved staff; but, finding it impossible to pass the staff down the tightly strictured anterior half of the urethra, I availed myself of the fistulous opening already mentioned, and thus overcame the difficulty. I now introduced the forceps and seized the stone, which began to crumble under the slightest pressure. Finding this, I desisted, and having shifted the stone a little with my finger, I managed, with the aid of the scoop, to remove it. One end of it lay in the prostate, the other in the base of the bladder. A short large gum elastic catheter was introduced through the wound and tied in position. There was no unusual hæmorrhage or constitutional disturbance, and the case proceeded uniformly to a good recovery.

I will now call your attention to the stone itself and one or two of the salient features of the case. Owing to the extreme brittleness of the stone, I have not ventured to make a section; but you will perceive in the middle, where the encrustation of phosphates is broken, that the centre consists of a piece of gum elastic catheter or bougie about the size of a No. 5 or 6. From its general appearance, I judge that it extends through the whole length of the stone, and is curved on itself at the ends, something like a figure of eight. The earthy matter, I believe, as is usual in these cases, consists principally, if not entirely, of phosphates.

Now, it was not till the operation was complete and the patient had recovered from the chloroform, that we knew of the introduction of this piece of catheter into the bladder. When questioned about it, he said that it happened about five years ago, not long before his admission into the Stockport Infirmary. He was one day using his catheter for the relief of his stricture, and, being at the same time somewhat under the influence of drink, he accidentally broke a piece off and let it slip beyond his reach. He had never liked to tell any one of the circumstance. This illustrates one of the great difficulties which every one of us is constantly meeting with in practice. Patients, from ignorance, carelessness, or a foolish reticence, pass over or conceal facts which are of the highest importance in diagnosis, and thus often bring much needless misery upon themselves and confusion upon the medical man who has charge of their case.

This man was admitted into an infirmary not long after the accident happened. He was, doubtless, carefully examined, and probably, in the act of examination, the lightly adhering crust of phosphates was broken off and passed in fragments with the urine; indeed, an accidental case of lithotrity. A second examination would then show no more stone, for the metal sound would elicit no signs from the three or four inches of softened catheter left behind; and, without any hint that a foreign body had been introduced, the patient might well be discharged as cured, yet carrying with him that which would to a certainty soon reproduce the disease. It is to be noticed, that the fibrous portion of the catheter still retains much of its toughness notwithstanding its long soaking in decomposing urine.

I noticed in this—and it has been noticed in similar cases—that, although it is clear that one of the bulbous ends of the stone lay in the prostate, it offered no obstruction to the catheter nor to the passage of urine, but for a time abrogated the functions of the sphincter and allowed the urine to be constantly dribbling away.

In conclusion, I would draw attention to the rapidity with which the parts involved recovered a healthy state. Although for years a chronic cystitis had been going on, and for months his urine had been constantly dribbling away, and his general appearance had become in a marked degree cachectic, no sooner had the cause of irritation been removed, than in a few days his urine became normal, and his general health greatly improved; and, in less than two months, the bladder and sphincter had recovered their power, and he was restored to a sound and healthy condition.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, November 3rd, 1874.

Sir W. Jenner, Bart., M.D., F.R.S., in the Chair.

The report of the Morbid Growths Committee corroborated Mr. Wilkinson's opinion as to the growth exhibited by him in May last: it was a simple angeioma.

Alopecia Areata.—Mr. Waren Tay brought forward two children, the subjects of alopecia areata, associated with trichophyton tonsurans. The children—brothers—had bald patches on their heads, which were most marked in the younger child, who was three years old. Spores and mycelium were found in the bald patches, while the hairs in the neighbourhood were the subject of bulbous atrophy. The eldest child was first affected, according to the mother's account, about eighteen months ago; after that, all the members of the family were affected with ringworm, the younger child having a patch over the eye. These patches all disappeared, and it was only five months ago that baldness showed itself in the younger child. It was rarely that a fungus showed itself with alopecia areata. Cures, however, where they co-existed had been published by various writers, as Mr. Hutchinson and Dr. Tilbury Fox. In these cases, the trichophyton was found along with the baldness.—Dr. Tilbury Fox admitted that in a very large proportion of the cases no fungus existed. In other cases, it was present. The fungus certainly was not essential. He would not affirm that circumscribed baldness could not be produced by a fungus.—The President would not say that such could not be the case. He held that the baldness was due to atrophy of the hair-bulbs, and that this atrophied condition favoured parasitic growth. The fungus grew readily; and where was there a more favourable nidus than an atrophied hair-bulb? In the present case, there was a scurfy skin around the bald patches, and here the fungus was found.—Dr. Hilton Fagge had never met with a case of true alopecia areata that was due to a parasitic growth. He thought that in Mr. Tay's cases there were two independent affections present. He knew a case where a nurse-girl gave every child she nursed tinea tonsurans, and yet gave no evidence to the naked eye of it in herself. He thought that there was a tendency in some families to this disease. —The President confirmed Dr. Fagge's opinion of there being a family tendency to alopecia.—Dr. Tilbury Fox thought these numerous sources of fallacy had long ago been exposed. The question at issue was—Has there ever been found a plentiful supply of fungus with well marked circumscribed baldness? He thought not.—The President

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[*] Read before the Surgical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

said if the fungus only occurred occasionally it could not be the cause of the baldness. — Dr. Sparks mentioned two cases in brothers; while the one was recovering, the other was growing worse. There was no scurfiness nor fungus in either case.

Disease of the Heart in a Fœtus.—Mr. Clement Lucas exhibited a case of fœtal disease of the heart. The infant, five days old, was brought to the hospital completely cyanotic. There was complete atresia of the pulmonary artery, and yet the septum ventriculorum was perfect. The communication betwixt the auricles was perfectly free. The left ventricle was enlarged and thickened. The Eustachian valve was highly developed. The ductus arteriosus was quite patent. The right ventricle was exceedingly small. The pulmonary valves were coherent, and the divisions were only indicated by ridges.—Dr. Cayley thought the changes due to fœtal endocarditis after the septum ventriculorum was closed.—The President agreed with Dr. Cayley's view as to the cause of the atresia. He also pointed out that, if the atresia had not such origin, there would not have been adhesion of the valves, but constriction of the pulmonary orifice.

Acute Enteritis.—Dr. Goodhart showed a specimen of acute enteritis in a man, aged 36. He had sore-throat, then suppuration of joints, with facial erysipelas. The temperature was normal till the appearance of the erysipelas, when it rose. At the *post mortem* examination, there were found sloughing of the uvula, suppuration in one tonsil, and pus in the left tympanic cavity. Beyond these, there were no lesions, except in the abdominal cavity. The intestine was much thickened, and there was much ulceration in both lower and upper portions. The submucous layer was infiltrated with pus. It might be regarded as diphtheria or scorbutic dysentery, or others might think it typhoid fever.—In answer to questions from Mr. Lennox Browne and the President, Dr. Goodhart said the throat-symptoms in life were so slight that the laryngoscope had not been used.

Carcinoma of the Transverse Colon.—Dr. Dowse brought forward a case, which occurred in a woman, aged 69, whose sister had died of gastric cancer. A movable tumour had been felt in the right upper portion of the abdomen in life. Death was brought about by exhaustion from diarrhœa. There was no other disease than a nodular cancer, involving the walls of the bowel, while in the centre of the mass was an ulceration caused by a slough. The growth was evidently of some years' standing, and yet there was no evidence of any obstruction in the bowel. The ulceration had led to perforation of the bowel.—In answer to Mr. Arnott, Dr. Dowse said he had not found any secondary cancer. —Referred to Morbid Growths Committee.

Aneurism of the Pulmonary Artery.—Dr. Dowse described a case which occurred in a girl, aged 19. She was pregnant. There was an enlarged area of cardiac dulness, and a systolic murmur over the pulmonary artery, with a well marked thrill. The urgent symptoms were relieved, but death took place from pericarditis. The pericardium was covered with lymph, and contained some blood, which came from a rent in a globular tumour, of the size of a pullet's egg, at the root of the pulmonary artery. The sac was filled by firm clot. There were vegetations in the pulmonary valves, and enlargement of the right ventricle, with tricuspid regurgitation.

Sarcomatous Tumours.—Mr. Godlee showed two sarcomatous tumours. One was from the shin of a man of middle age. While it apparently resembled true cancer, the histological characters were those of true sarcoma, to which Billroth had applied the name "alveolar". In life, it was impossible to tell whether the tumour sprang from the bone or not. In both cases, amputation had been performed. Both were ordinary round-celled sarcoma.

Primary Enchondroma of the Lung.—Dr. Wickham Legg presented microscopical specimens of this disease. It existed as a small nodule in the lung. It was yellowish-white on section. The matrix was highly fibrillar, and somewhat calcified in the centre.—In answer to questions by Mr. Arnott and Dr. Cayley, Dr. Legg said no other organ contained similar growths, and that it was found in the lung structure away from the pleura.

Fibroid Patch on Heart.—Dr. Goodhart showed a heart with a fibroid patch. Similar patches were found in the testes. There was no history of syphilis; but scars were found in the groins and trachea. The man died of aortic aneurism.

Syphilitic Disease of the Heart.—Dr. Cayley exhibited a specimen from a man, who died in bed after taking a dose of chloral, to which he was accustomed. The organs generally were healthy, but the heart was enlarged, especially the left ventricle, and contained in its structure several fibroid nodules. Microscopically, this fibroid mass consisted of fibro-nucleated tissue and small round cells with intracellular substance. The walls of the heart were not fatty, and the aorta was healthy.

Congenital Disease of the Aortic Valves.—Dr. Cayley brought forward a specimen of congenital aortic valvular disease from a child, who died at the age of nine months, having always been subject to dyspnœa. There was a loud systolic murmur. The left ventricle was much enlarged; the aortic orifice was covered with vegetations. The heart was perfectly developed. The disease was probably congenital.—The President thought so much change scarcely compatible with closure of the foramen ovale.

MEDICAL SOCIETY OF LONDON.

Monday, November 9th, 1874.

Victor de Méric, F.R.C.S., President, in the Chair.

Fibro-Fatty Tumour.—Mr. Henry Smith exhibited a fibro-fatty tumour removed from over the hip of a girl aged 6½ years. There had been difficulty of diagnosis. Two surgeons were of opinion that it was cystic, while the third maintained that it was solid. Mr. Smith had seen several cases of fatty tumour which recurred in the form of fibroid fatty tumour, *i.e.*, with increase of fibrous element, and also in a malignant form.

Transfusion of Lamb's Blood.—Dr. Theodore Williams communicated a case of transfusion of lamb's blood in pulmonary consumption related by Dr. Redtel. The author, who had well marked tubercular consolidation of the left lung and ulceration of the larynx, accompanied by some pyrexia and dysphagia, was transfused with lamb's blood by Dr. Hesse of Nordhausen on July 1st. The apparatus consisted of two glass tubes, and an India-rubber pipe, filled with cold solution of carbonate of soda, through which the blood was made to flow from the lamb into the median basilar vein. The first sensations were warmth in the arm, formication, and redness of the face; and, after fifty-five seconds, dyspnœa, which became intense, ensued. The operation had to be discontinued at the end of ninety-five seconds. Violent pains in the loins succeeded, which, though they diminished in intensity, lasted some hours. They afterwards assumed a pulsatile character, synchronous with each arterial beat, and were assigned by the author to pressure by the distended inferior vena cava and abdominal aorta on the lumbar sympathetic. Forty minutes after the operation, a general rigor, with slight cyanosis, appeared, followed an hour later by a reaction and profuse perspiration, lasting for five hours. The pulse was 140, the respirations were 32. The patient slept without drugs, though badly, on account of cough. On the second day, the urine contained a trace of albumen, and, five days later, the usual eruption of urticaria, accompanied by rather high fever, appeared. This lasted two days, and greatly prostrated him. On July 8th, some improvement took place in his appetite. The result of the operation appeared to be, that no change took place in the symptoms, with the exception of the dysphagia. Physical examination showed a considerable diminution of the lung-consolidation. Dr. Hesse had performed the operation thirty-two times with but one bad result. He recommended it in cases of phthisis where anæmia was a marked symptom, and especially where the discharge was ushered in by extensive hæmoptysis accompanied by slight or doubtful physical signs. The pulse was one great indication; if it were full and strong, transfusion was dangerous. Dr. Redtel suggested the use of transfusion of lamb's blood in time of war to supply loss of blood from severe wounds, and stated that, three weeks after the operation, he was gradually becoming worse, having reaped no material benefit from it.—The President mentioned a case that had occurred in the German Hospital. A patient having lost blood largely through hæmorrhage (from caries), a sheep that happened to be on the premises was connected by a simple apparatus, like that used by Dr. Hesse, and blood was transfused. The patient, however, died.—Dr. Aveling thought that the objection to the instrument used by Dr. Hesse was the impossibility of measuring the quantity of blood. He preferred human blood to lamb's blood; he was the first to inject lamb's blood in this country, which he did in the beginning of the present year.

Purpura Hæmorrhagica.—Dr. Richardson read a paper on certain types of disease included under the term purpura hæmorrhagica. He defined three forms of purpuric disease, each having a distinct pathology, etiology, diagnosis, and prognosis, and each requiring a particular treatment. To these forms he applied different names; viz., aqueous purpura, saline purpura, and vascular purpura. Aqueous purpura was so named, because in it the water of the blood was in excess, and the colloidal and crystalloidal parts were relatively diseased. There was no evidence that the actual quantity of fibrine was reduced, but it was distributed through too large a volume of water; hence the blood, imperfectly protected by its coagulable fibrine, was ready to flow from the vessels, like water, on the smallest wound; it was also ready to diffuse through vessels that might be injured by a flow or by pressure. This type of purpura had been studied by the synthetical method, and comparisons were drawn by the author between the blood observed in those researches and the blood of the human subject under the disease in question. The origin of this type of the malady was traced to hereditary causes mainly, but it might arise from mental shock. Two cases illustrative of this origin were related, in one of which the symptoms came on after fright, in the other after sudden and intense grief. Saline purpura was so named, because in it the blood was surcharged with some saline soluble substance, by which the plastic colloidal fibrine was held in undue solution in the water. The synthesis of this type of malady was also explained. The disease was not hereditary, but was induced by some error of diet, or other cause, that increased the solubility of the fibrine through the blood. The true scorbutic eruptions and scurvy of the old schools of physic came under this head. The author had seen this type of purpura induced by the excessive use of chloral. Much loss of blood was not common in this type of purpura, but passive exudations from vascular parts, as from the jaws, were common. The blood in fact would transude from both structures; but, after it had passed from the body, the fibrine would slowly separate and become pectous. Vascular purpura was a type of the disease in which the blood was not modified; but, owing to some defect in the vessels of the minute circulation, they allowed the blood to escape, if they were subjected to any blow, or strain, or pressure. The nature of the vascular change was obscure; it might be a paralysis, but the author was rather inclined to think it due to some actual structural modification of the vessels themselves. The subjects of this type of purpura were usually young, and, as a rule, they presented some deformity, more or less marked, of the skeleton. The diagnosis of these three types of purpura was described, the different characters of the symptoms being defined with especial care. It was pointed out that, in the vascular type of the disease, the eruption was hard and prominent, because, from the fact that the blood was natural, the fibrine separated when it was thrown out, and coagulated there. There was sometimes a combination of these types. The paper included, finally, a review of the special modes of treatment required in each type. A special point was made of the best method of arresting the hæmorrhage from wounds, as after the extraction of a tooth, in instances of aqueous purpura. In six cases of this kind to which Dr. Richardson had been summoned, the flow of blood had been checked by the attention paid not less to the general than to the local measures. The general treatment consisted in sustaining the patient with food and administering mineral acids internally, even though the flow of blood were still imperfectly staunched. The local method consisted in applying with firm pressure a plastic styptic to the bleeding part. Caustic styptics were specially condemned. In conclusion, the value of turpentine for the treatment of the vascular variety of purpura was strongly enforced, and rules for the subject of each type of the disease were specified.—The PRESIDENT had seen a well marked purpuric eruption in a patient deeply imbued with syphilis, and wished to know in what class this would be included.—Dr. DALDY had seen several cases of purpura among people living in the low lands near Lewisham, and found it was generally connected with enlarged spleen.—Dr. HARE had seen a most acute case of purpura occur in a man aged 53. Both face and neck were a mass of extravasated blood-patches, which spread afterwards to the body, assuming at first a symmetrical character, but eventually covering the whole body. He died in twenty days from the commencement of the disease. A cavity was found in one lung.—Dr. CLEVELAND had seen purpura occur in patients of all ages, from a few months to 80 years. The worst case he had ever witnessed was one mistaken for malignant small pox, where blood flowed from every pore, and hæmorrhage took place in the nostrils, bowels, and stomach, soon ending fatally. Though turpentine was good in these cases, he found acetate of lead better than all. As an instance of Dr. Richardson's third form of purpura, he related a case where a large spot of extravasated blood on one of the limbs was accompanied with aneurism of the aorta.—Mr. WOODHOUSE BRAINE had seen a good instance of purpura following the use of chloral, in a gentleman, aged 60, who had been given chloral to induce sleep. On the sixth day, large purpuric spots appeared on the calves. On two other occasions, he had taken chloral with the same effects.—Dr. THEODORE WILLIAMS remarked that Dr. Richardson's classification, being based on the analysis of the blood, would prove very useful, though modification might become necessary. No mention had been made of the common occurrence of purpura with diseases of the liver, especially in jaundice, where purpura chiefly of the lower extremities often appeared when the jaundice had lasted long. It was by no means rare in the later stages of granular kidney. Its occurrence in malarious districts was well known, and of its following the use of chloral. Dr. Williams gave a marked example of an asthmatic who took chloral for three days, at the rate of a scruple every three hours. The asthma ceased, but a purpuric eruption appeared, affecting the lower extremities and abdomen, and lasted two days. Its disappearance was followed by a return of the asthma.—Dr. HARE remarked on the fatal prognosis which purpura in scarlet fever generally indicated.—Dr. SANSOM commented on the great difficulty of diagnosis of purpura from some forms of variola.—Dr. RICHARDSON stated that, in his classification, he had kept quite clear of variola and scarlatina, which, with cases arising from marsh-miasm, he regarded as the result of severe blood-poisoning, forming a class by themselves. Syphilitic purpura, and that arising from poisoning by chloral or mercury, he would include in the second class, or saline purpura.

MEDICAL MICROSCOPICAL SOCIETY.

FRIDAY, NOVEMBER 20TH, 1874.

JABEZ HOGG, Esq., President, in the Chair.

Ichthyosis Linguæ.—Dr. GOODHART read a paper on this subject. He had observed the disease in two cases; both men above fifty years of age. Both had a history of syphilis, and in both epithelioma supervened. Its characteristics were hard white elevated patches on the tongue, and more rarely on the cheeks, like warty excrescences, consisting of numerous vertically set papillæ, of fusiform shape, and covered by an abnormally thickened epithelium. The underlying cutis vera and subcutaneous tissues were likewise hypertrophied, while between the papillæ the increased epithelium at times extended deeply. All this change might be considered due to increased activity of the rete Malpighii. He had not seen the colossal papillæ of Mr. Hulke, nor the shrunken ones of Mr. Fairlie Clarke. The muscular tissue of the tongue was unaffected. In order of sequence, the hypertrophy of the epithelium no doubt preceded the increase of subcutaneous fibrous tissue. The onset of epithelioma in a patch of ichthyosis was seen in the infiltration by indifferent cells of the subcutaneous fibrous tissue; epithelial "bird's nests" were rarely found. At present, the disease was incurable, though palliative measures might answer temporarily.—The PRESIDENT preferred the term tylosis linguæ to that of ichthyosis.—Mr. FAIRLIE CLARKE considered the objections to the term ichthyosis linguæ mostly clinical. He had observed thinning of the papillæ from the lateral pressure of the increased epithelium, this condition increasing as the disease was merging in epithelioma. Tylosis linguæ must not be confounded with white patches ("white fibrous cicatrices") seen on the tongue, which, though incurable, were not followed by cancer. Cancer supervened, either from growth of epithelium from above or from below, as the result of the irritation of the ichthyotic patch.—Mr. HENRY MORRIS, while holding cancer and ichthyosis linguæ as distinct diseases, considered both to depend upon "modified nutrition", *i.e.*, the production of excessive epithelium, heterologous in cancer, homologous in ichthyosis. Cancer consequent upon ichthyosis did not grow more rapidly than when commencing without any such cause, however long the latter disease may have lasted. He believed ichthyosis of the tongue to be the same as ichthyosis elsewhere, quoting a case in support of this view.—Mr. NEEDHAM had seen the hypertrophied papillæ, and had traced microscopically the epitheliomatous growth to the ichthyotic patch.—Numerous drawings and specimens illustrative of the paper were exhibited.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

NOVEMBER 10TH, 1874.

W. T. GAIRDNER, M.D., President, in the Chair.

Recurrent Tumour: Twenty-four Years' History.—Dr. HECTOR C. CAMERON brought up a report on the tumour shown last session, and again presented it. The patient, now fifty-five years of age, first noticed a tumour on her abdomen soon after her marriage in 1850. It was situated two inches above the middle of Poupart's ligament, and grew rapidly. It was removed by the late Dr. Lyon, in November, 1851 (three months after her delivery), its size being that of a lemon. After two pregnancies, it recurred close to the old wound and was removed; and again recurred and was removed the third time, after an interval of eighteen months. After seven years, Dr. Lyon again removed the growth, and, as the umbilicus was cut away in this operation, the tumour on this occasion must have been higher up and nearer the middle line than before. After an unknown interval (during which several button-like projections were removed by the knife), the tumour recurred, and another surgeon tried to destroy it with caustic; but the tumour again grew slowly, although it did not trouble her much. In April, 1874, Dr. Cameron removed the small tumour now shown; it was situated three inches above Poupart's ligament, and, being pressed on by the clothes, had become painful. Another tumour existed still in the neighbourhood of the iliac spine, but it was left alone as being painless and slow in its growth. The whole region from the former site of the umbilicus to the tumour still remaining was a mass of cicatrix (measuring seven inches transversely by three vertically), and was studded here and there with small fibrous outgrowths of the size of a bean or less. These bled if much irritated, and frequently broke off spontaneously. A large one of the size of a cherry once caused bleeding to the extent of producing syncope. The woman was in perfectly good health, with the exception of this local condition of the abdomen. The tumour shown was subcutaneous, adherent to the skin but movable upon the abdominal walls, and at the operation was easily separated from them by the forefinger. —Dr. JOSEPH COATS reported the tumour to have all the microscopic characters of the group described as recurrent fibroid, fibro-plastic, and fibro-sarcoma. The spindle-shaped cells of which it was composed lay parallel to each other in bundles in such a way as to give the appearance of fibres under a low power, but a higher power brought out the cellular character, and showed that these cells contained oval or oblong nuclei. The tumour was thus a sarcoma, or more specifically a fasciculated sarcoma or fibro-sarcoma.

Recurrent Tumours: Microscopic Characters.—Dr. H. C. CAMERON showed a mammary tumour which he had removed, and also two others, smaller and softer, which had occurred within a few weeks of the operation, at the site of the wound. He also showed a large tumour removed from the axilla of a girl; although this had not yet recurred (the operation being but recently performed), it seemed to belong to the same class.—Dr. JOSEPH COATS had placed sections of the tumours under the microscope. It appeared to him that the structure of these tumours alone was a strong argument in favour of the name sarcoma. In all of them, the cells were very abundant, but their characters differed. The tumour removed from the axilla was composed chiefly of round cells. The large tumour from the mamma in some parts was composed of dense connective tissue; and in others abundant spindle-shaped cells were the essential elements. The two recurring tumours in this case were homogeneous in structure and exceedingly cellular throughout. The cells were mostly spindle-shaped, but in some parts round.

Double Aortic Aneurism: Lower One Opening into Œsophagus.—Mr. H. E. CLARK showed a preparation of an aorta in which were two aneurisms. The upper of these, in the ascending part of the arch, was very large and seemed in process of spontaneous cure, the fibrinous layers being very firm and fully two inches thick. This aneurism had pushed aside the neighbouring parts without producing any great pressure; the pneumogastric and inferior laryngeal nerves, although in contact with the aneurism, were not imbedded in its wall. The second aneurism, much smaller, involved only the posterior part and the right side of the descending aorta opposite to the fourth dorsal vertebra, to which it was firmly adherent. Evidences of repair were entirely wanting in this. An opening about an eighth of an inch in diameter communicated between the sac and the œsophagus.—Dr. RENFREW, who saw the man before death, had diagnosed an aneurism bursting into the œsophagus from the obvious signs of aneurism, and from the fact of the patient's bringing up blood by the mouth and passing it by the bowel.—Dr. MACLAREN, under whose care the man had been while in the Royal Infirmary, said that no suspicion of a second aneurism had arisen; the patient, however, had difficulty in swallowing, the pain being referred to a spot opposite the mid sternum; there were no laryngeal symptoms. —Dr. FINLAYSON contrasted this case with one recorded by Dr. Bennett, in which the fatal growth of the upper aneurism had led to the cure of the lower one.—Dr. GAIRDNER had seen this case during life, but had no accurate recollection of it. The diagnosis of double aneurism had sometimes been possible to him, not so much from physical signs as from certain physiological effects demanding a double cause.

Aneurism Opening into the Spinal Canal.—Dr. FOULIS showed a specimen of an aneurism opening into the spinal canal, removed from a patient (aged 37) of Dr. Gairdner's. The origin of the disease seemed to be traceable back for two years; the nervous symptoms, however, were only of about two months' duration. Shooting pains in the legs, followed by weakness and ultimately complete paralysis and anæsthesia of the lower limbs, together with retention of urine and obstinate constipation, constituted the main symptoms. There was intense pain over the fifth and sixth dorsal spines extending round to the cardiac region; a systolic *bruit* was audible at the apex of the heart; there was only a subfebrile elevation of temperature. Ultimately serious vesical complications and bed-sores supervened. During his stay in hospital—three or four weeks—the bowels only acted once under strong galvanic stimulation, various medicines having been tried without avail; vomiting and retching were troublesome. At the *post mortem* inspection, the bowels were found full of clayey fæces, the walls of the bladder in a state of slough, and the ureters and pelves of the kidneys were congested and coated with muco-purulent matter. A small tumour was found lying at the right side of the aorta, but springing from its posterior part opposite the fifth dorsal spine; it was partly occupied by coagula and laminated clot and a few loose spicula of bone. The aneurism had destroyed the body of the fifth and part of the fourth and sixth dorsal vertebræ, and extended into the spinal canal by a ragged opening at the head of the fifth rib, which was quite loose. The spinal cord was pressed aside, but the sheath was not opened into by the aneurism, which had begun to point into the left spinal groove. With the exception of the slight bulging referred to, the aneurism was entirely confined to the bodies of the vertebræ and to the spinal canal, and altogether presented a very circumscribed area. The spinal cord was rather soft below the aneurism, but above it the nervous tissue was normal. The heart was normal; the aorta was slightly atheromatous.—Dr. GAIRDNER said that such terminations in aneurism were well enough known, but in the present case aneurism was not made out, and from the small size and depth of the tumour the diagnosis was probably impossible.

Amblyopia in a Painter: Lead-Amaurosis (?)—Dr. THOMAS REID showed a man, aged 36, admitted to the Eye Infirmary with defective vision on the left side, and having been affected, as alleged, with lead-poisoning. There was a blue line on the gums. He had been in the Royal Infirmary for two months with a degree of hemiplegia affecting the left side; this came on about a year ago in connection with a fit of apparently partial insensibility, but of this no good account could be obtained. On admission, the vision was defective in the left eye, and he had a difficulty in seeing in the downward direction. Under treatment with iodide of potassium, the sight had improved, so that he could now read No. 1; the field of vision, however, although improved, was still contracted (equally in all directions and in both eyes), so as to extend only to thirty degrees, as measured by the perimeter, both vertically and transversely. The ophthalmoscope showed the left disc to be oval, with the long axis vertical, of a pearly white appearance, and with traces of minute points of whitish exudation at the inner margin of the disc and not extending beyond it. The vessels were found diminished in calibre. In the right eye, the disc was also oval-shaped; it was slightly congested, but there was no exudation. Dr. Reid thought the appearances and the course of the case pointed to some constitutional affection; and, without committing himself to the hypothesis of lead-poisoning, he thought that the exudation resembled that described by the late Dr. George Rainy in Dr. Scott Orr's Case of Lead-Amaurosis (*Glasgow Medical Journal*, October, 1860), Dr. Reid having frequently examined the eyes of that patient.—Dr. FINLAYSON had, at Dr. Reid's request, examined this patient as to his history and present condition, but had failed to find any satisfactory evidence of lead-poisoning. In particular, there had been no colic or lead-paralysis properly so-called. The paralytic symptoms remaining were purely those of cerebral hemiplegia; the muscles responded perfectly to the induced current. Even the blue line seemed to him, from the extremely bad state of the teeth and gums, to be of but little diagnostic value in this case; but, of course, the cerebral affection might be due to lead-poisoning, as some cases of lead affection seem to have occurred without colic or other signs of this poison.—Dr. SCOTT ORR said this patient had been under his care at the infirmary, but he could not say that he had satisfied himself of lead-poisoning. The case of lead-amaurosis which he had reported in the *Glasgow Medical Journal* for 1860 was an undoubted case, and was vouched for by the late Dr. Mackenzie.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE COLONIST'S PATENT MEDICINE-CHEST.

MESSRS. JOHN RICHARDSON, SON, AND CO., have prepared a compact medicine-chest for the use of colonists and others not immediately within reach of medical assistance. The little case contains twelve varieties of Messrs. Richardson's sugar-coated pills, comprising those most wanted in cases of ordinary sickness and emergencies, such as quinine, compound rhubarb, iron, opium, and podophyllin. A bottle of chlorodyne completes the therapeutic means contained in the chest; whilst an useful and clearly written book of directions, by Dr. Spencer Thomson, indicates the right quantity and use of the various medicines for the behoof of the non-professional possessor of the colonist's medicine-chest.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 5TH, 1874.

PROPOSED DIPLOMA IN PUBLIC HEALTH AT THE UNIVERSITY OF CAMBRIDGE.

THE Memorandum of Report of the State Medicine Qualifications Committee of the British Medical Association, presided over by Dr. Rumsey, which we published some time since, has borne excellent fruit in many quarters. The reasons for desiring a generally accessible qualification in public medicine were there very fully set forth, and the details of a scheme for arranging a system of minimum examination for offices of public health, of various classes, were discussed very amply and lucidly. Copies of that memorandum and report were presented to the heads of universities and colleges; the report itself has been submitted for action to the Committee of Council.

Meanwhile, the Board of Medical Studies of the University of Cambridge, under the able guidance, we presume, of Dr. Paget, lately President of the General Medical Council, who has, we believe, expressed approval of the Report of the Committee of the Association, has taken a very important and most popular step in issuing a report in which it proposes to the University to provide examinations and grant certificates of competency in the subjects necessary for medical officers of health. Compared with the more comprehensive scheme of our State Medicine Qualifications Committee, the plan of the Medical Board of Cambridge is limited in its application and insufficient for the public requirements in respect to the great number of other offices which now require a knowledge of public medicine besides that of medical officer of health. Among these, are the offices of prison and gaol surgeons, factory surgeons, medical inspectors, and medical officers of infirmaries, and Poor-law medical officers generally. The scheme, however, is evidently drawn upon larger lines than are filled in, and contemplates the ultimate adoption of such a plan as that of our Committee. As a step in the right direction, it has our hearty approval; and Dr. Paget deserves warm thanks for the thoughtful prevision and ability with which, both in past years and now, he has dealt with this great and important subject.

We are indebted to the *Times* for an abstract of the report:

The Board of Medical Studies have issued a lengthy report, in which they draw the attention of the University to the subject of State medicine, and advise the institution of an examination specially designed for gentlemen intending to hold public appointments as officers of health. They say in their report the importance of State medicine was recognised in 1868, when it was introduced as an independent subject in the exercises for the degree of M.D.; and again in 1870, when it was the first matter which engaged the attention of the Medical Questions Syndicate. A memorandum of the Syndicate, dated January 27th, 1870, states:

> "The scientific knowledge of these subjects (preventive medicine and other branches of State Medicine) has of late been largely extended, and they have excited, and are exciting, more and more public interest. Most of them have been subjects of parliamentary legislation, and have become the business of Government departments. In connection with them, some important offices have long existed. Many others, chiefly connected with preventive medicine, have been recently created, and the number of these will probably be largely increased. It is therefore of importance to the community that some steps should be taken for providing persons more thoroughly qualified for the performance of these duties. It seems also desirable that means should be provided for testing their fitness and certifying it, so that the Government or other authority may have some guide to the choice of the fittest persons."

The consideration of this subject by the Medical Questions Syndicate was arrested by the introduction into Parliament of the Government Bill for Medical Reform. But what was foreseen by the Syndicate has since come to pass, and the appointment of officers of health is being made throughout the country.

Under these circumstances, the attention of the Board has been called to the manifest public advantage that would result if means were provided by the university (or by the English universities jointly) for testing and certifying the fitness of candidates for that office, as Dublin and Edinburgh have already done. The Board have considered the question in its largest scope; viz., as to the expediency of the university establishing examinations and granting certificates or diplomas in State medicine, or in either or both those branches of it which are comprised in the functions of officers of health or public analysts. The recommendation of the Board, as will be seen, is limited in one respect and comprehensive in another. To make it more thoroughly understood, the outlines of a scheme are added, by which it might be carried out. The Board are of opinion that it is expedient for the university to establish examinations and grant certificates of competency in so much of State medicine as is comprised in the functions of officers of health. They recommend that the examinations and certificates should, for the present at least, be limited to these departments of the large subject of State medicine. They believe that an actual public want would thus be supplied more readily and more effectually than would be accomplished by a larger and more ambitious scheme; and the more manageable plan, when fairly in operation, could, if needful, be easily extended at any future time, so as to comprehend the whole of State medicine. They recommend that the examinations should not be confined to members of the university alone, but that any legally qualified (registered) medical practitioner should be admissible as a candidate, provided he be 24 years of age at the least. The certificate given to successful candidates should testify only to their competent knowledge of what is required for the duties of an officer of health; and that the following be the subjects of examination:—1. Physics and Chemistry; the principles of chemistry and methods of analysis, with especial reference to analyses (microscopical as well as chemical) of air and water; the laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, and sanitary engineering in general. 2. Laws relating to public health. 3. Sanitary statistics. 4. Origin, propagation, pathology, and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and disposal of sewage and refuse; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

They further recommend that the examination be practical, oral, and in writing; that it be in two parts, to be passed separately or together, at the option of the candidate; that the first part be in Section 1 (physics and chemistry), the second part in the subjects of Sections 2, 3, and 4; that the fee for admission to each part be four guineas; that the examination (in both parts) be held at Cambridge once in the year, or twice if the number of candidates should render it expedient; that the first examination be held in October 1875; that the examiners be four in number, and be appointed from year to year or biennially. The Board would suggest that, if a scheme like this were adopted by the University, and a Syndicate were charged to carry it into effect, authority should be given to the Syndicate to introduce any modifications in the details which experience or further consideration might show to be advisable. The Board desire to add, that it may be deserving of consideration at a future time whether other bodies should not be invited to co-operate with the University in a measure of public utility such as is here proposed.

The Vice-Chancellor had invited a discussion of the report on Thursday last, but the report has not reached us.

EXCHANGES FOR ARMY MEDICAL OFFICERS.

A STATEMENT is afloat that it is the intention of the Secretary of State for War to introduce a Bill during the ensuing session of Parliament for removing the existing restrictions on officers paying or receiving whatever sums of money they may mutually agree upon for exchanges. If this statement be true, we earnestly hope that this privilege will not be confined to the combatant officers, but will be extended to the army medical officers also. We have always been at a loss to understand the motives which have dictated the objections to medical officers effecting exchanges for pecuniary considerations, so long as the sanction and approval of the head of the army medical department were obtained for them, and the public service was not permitted to suffer in any way. Nor have we ever been able to obtain any reasonable explanation of the unjust distinction which has been made between the combatant and medical officers, in the refunding to the former of the over-regulation payments which were given in arranging promotion exchanges, and the refusal to refund to the latter any of the money paid for exchanges which took place at a time when such exchanges were so far sanctioned that no official objection was ever raised against them, although they were openly and constantly taking place. There was a marked difference between the circumstances under which the combatant officers offered sums above the regulation prices to induce other officers to retire and make way for them, and those under which medical officers offered sums of money to other medical officers to vacate a favourite charge, as one of a cavalry or other regiment likely to remain for some years on home service, in their favour. To the combatant officers, the practice was strictly prohibited. A special article in the Queen's Regulations forbade over-regulation payments; and it was only in direct contravention of this order that such payments could be made. But there was no regulation or order forbidding a medical officer to pay a sum of money for the medical charge of any particular regiment, or for exchanging for service in any particular station; on the contrary, the practice was one which was so thoroughly acknowledged, that it was generally known in the service that the medical charge of a cavalry regiment at home could only be obtained by paying a certain sum for it, which sum was expected to be regained when the purchaser, in his turn, vacated the charge to some other officer. Yet, though the one set of payments were made in direct disobedience of orders, and the other set at least not in contravention of any orders, the combatant officers have had influence enough to induce the Government to refund their over-regulation payments, while the medical officers who paid for their regiments have failed to recover any portion of their outlay. We know that there are many who object to any interchange of money for charges or exchanges on principle. But, certainly, if the combatant officers were held to be entitled to receive back their over-regulation payments, justice required that the medical officers should have received back their payments also. Nor do we believe that any arguments that can be urged against money payments for exchanges to particular regiments or stations, if thoroughly sifted, will be found to rest on a sound basis. Money must have its advantages, in the medical as in other departments of the army; and, so long as the public service does not suffer in any way, there is no reason why these advantages should not be turned to account. Money is only paid for an exchange when there is a proportionate advantage both to the payer and the officer paid. The work of the public service is more likely to be done satisfactorily, because with more content, where exchanges for mutual convenience are allowed.

A medical officer is ordered to a station which does not suit his health, which interferes with his pursuits or occupations: In what way will the public service suffer if he induce, at his own expense, some other medical officer to take his place to whom the station is not equally objectionable? Is it not probable that the public will rather benefit by the exchange? that the medical officer to whom the station is unsuited, by being allowed to serve in a station which is suited to him, will continue to be efficient, instead, perhaps, of quitting the service for which his experience has increased his value as an officer, or of becoming chargeable on half-pay as an invalid? For, in the majority of instances in which exchanges have been effected by medical officers, it has appeared that the preservation of health has been the ruling motive on the part of one of the officers engaged in the transfer. There are many other reasons which might be adduced in favour of permitting exchanges between army medical officers, and permitting pecuniary arrangements in effecting them, but we forbear from enlarging further on the topic at present.

THE NEW FORM FOR MEDICAL CERTIFICATES OF CAUSES OF DEATHS.

THE Registrar-General has forwarded to us an early impression of the new form of medical certificate, which will be used after the 1st of January next. As, by the new Births and Deaths Registration Act of 1874, which comes into operation on the date just mentioned, all registered practitioners are required to certify the causes of death of their patients, the Registrar-General appears to have been anxious to make the new form of certificate as unobjectionable as possible. The form, as we mentioned last week, before being finally adopted, was submitted to, and approved by, the Presidents of the General Medical Council and of the Colleges of Physicians and Surgeons, and by the Master of the Society of Apothecaries. The form can hardly fail, therefore, to meet with the general approval of the medical profession. In it all the reasonable objections urged against the certificate now in use have disappeared. Instead of the medical attendant having to certify absolutely to the age of the deceased, the words "*whose age was stated to be*" are inserted just before the space intended for the age; and again, after the words "he or she died" is left a space for adding the words "*as I am informed*", should the medical attendant not feel justified in taking upon himself the responsibility of certifying the *fact* of death. After the spaces for the date and place of death, follow the words "*and that, to the best of my knowledge and belief, the cause of his or her death was as hereunder written*". It will be seen, therefore, that in the new form the medical attendant will not be called upon to certify to any other fact than that which must have come under his observation, and that will only be certified to the "best of his knowledge and belief". The general appearance and style of the new form also show a considerable improvement upon those which have now for some time been in use.

At the bottom of each form, are printed the words "The Registrar-General cautions all persons against accepting or using this certificate for any purpose whatsoever except that of delivering it to the Registrar".

In conclusion, it may be well to mention that, after the 1st of January next, the name of the registered medical practitioner who signs the medical certificate of the cause of death will be entered in the death-register, immediately after the cause of death. This will give an additional value to the certification, and will serve as a salutary check to the issue of certificates by unqualified or unregistered persons, which the present anonymous system does not prevent. In this respect, the alteration in the Registration Act is an assimilation to the system which has for some time worked well in Scotland.

With regard to the issue of the new forms to the medical profession, they will be obtainable by all registered practitioners from the registrars of each subdistrict, and it will be advisable that written application may be made for them in such time as may secure their being available for use after the 1st of January next, up to which date the old forms will still be used.

DR. LATHAM has been appointed Downing Professor of Pathology in the University of Cambridge.

THE old hospital ship *Dreadnought*, having done good service like the old *Téméraire*, has been finally towed into Chatham Dockyard for the purpose of being broken up.

A VIRULENT outbreak of yellow fever is said to be raging at Charleston, and in consequence vessels arriving from that port are ordered to be carefully surveyed.

THE members of the Plymouth Medical Society held their annual dinner at Devonport on November 17th. Nearly forty members sat down, and the banquet passed off exceedingly well.

THE opening of a new infirmary in connection with the Leeds Union took place on the 25th instant. The building has cost £18,000, and will accommodate three hundred patients.

PROFESSOR JOHN MARSHALL, F.R.S., commenced his second course of lectures on Anatomy before the Royal Academicians and students at Burlington House, on Thursday, December 3rd, at 8 o'clock P.M.

THE Committee of the Brompton Hospital for Consumption are carrying out their plan of provisional extension by fitting up and furnishing a fifth house, which will increase the accommodation of the south wing to 47 beds, and give a total of 257 beds in all.

THE Prince of Wales is making a good use of his game-bags; the authorities of St. Bartholomew's and St. George's Hospitals having each received presents during the week from Sandringham for the use of the patients.

WITH reference to the outbreak of small-pox at Rugby, Mr. T. M. Wratislaw, clerk to the urban sanitary authority, writes that there is no need of a panic on the subject. There have been but fifteen cases since its first appearance four months ago; and that every exertion is being made to isolate the cases, and hospital accommodation is being provided.

WE understand that Dr. Fayrer, F.R.S.E., of the Bengal Army Medical Service, and lately Professor of Surgery in the Medical College of Calcutta, is to succeed the late Sir Ranald Martin, C.B., as President of the London Medical Board for Examination of Officers of Her Majesty's Indian Services. Dr. Fayrer brings with him a very high reputation for scientific ability and professional character, and we are well assured will prove a worthy successor to the distinguished physician who has been recently removed from among us.

PLAGUE IN THE EAST.

DR. PASQUE, the Ottoman Sanitary Inspector at Jeddah, reports that plague exists in the Assyr district. In consequence, the quarantine at El Wedj of twenty-one days will be enforced on all arrivals from Arabian ports.

THE VOTING CHARITIES.

WE have on several occasions drawn the attention of our readers to the movement which has been going on for the last twelve months for the reform of the voting charities. This is a subject which closely affects various medical institutions, and we gladly revert to it once more. The system which prevails at many hospitals and dispensaries of electing the medical officers by the votes of the general body of governors is analogous to the evils which the Charity Voting Reform Association has set itself to remedy; and the admission of patients by "governors' letters" is a long-standing grievance of the same class, to which we need only allude in passing. The same love of petty patronage, which is the source of great evils in the voting charities, is the main hindrance to any effectual reforms in our hospitals and dispensaries. The Charity Voting Reform Association has now, after addressing itself more privately to the subscribers to nineteen of the principal voting charities, published a few suggestions, to which we gladly give insertion.

"The committee recommends to all those subscribers who desire a reform of the system, but are still willing, for the present, to continue their subscriptions:—

"1. That they endeavour to form a committee amongst themselves in each charity to bring the question of reform before their fellow subscribers, and to urge a selection and classification of cases either by the present managers or by a special committee, and that they call meetings in each charity for the purpose.

"2. That, in the meantime, they entrust their votes to the managing committees of the respective institutions, under the specific responsibility of investigating and classifying the cases of the candidates before they make use of such votes. Numerous subscribers have already adopted this plan; but it is desired to give to these scattered efforts the force of a combined movement, in the hope that the managing committees will of themselves propose measures of reform.

"3. In the event of any managing committee declining to accept such responsibility, and giving no means to the subscribers to bestow their votes properly according to a classified list, we trust that such subscribers will make their opinions unmistakably known to the managing committee, in order that a full reform may be obtained, and that, failing this, they will select for their charitable donations institutions which are not open to the same serious evils.

"Those subscribers to the various charities whose subscriptions are entered under initials only, are requested to send a post-card, with their names and address, to the Secretary, on receipt of which the pamphlets already sent to others will be forwarded to them also. Various papers containing full information on the subject may be obtained from the Secretary, at No. 30, Charing Cross, to whom subscriptions may be paid in support of the object of the Association."

We hope that these suggestions will be acted on by the subscribers, and that they will thus bring the force of public opinion to bear on the managers of the various institutions, and compel them to exercise their charity in a more discriminating manner. We shall then no longer be distressed by such piteous appeals as one which we lately received from a lady who had been duly admitted as a candidate by a society which grants small annuities, and who has just made her nineteenth application to its governors. For nine weary years and more has she been expending her money and her strength in rallying her supporters each spring and autumn. When she gets her annuity—if, indeed, she ever gets it—she will have paid dearly for the "charity" of the voters. Surely such cases as this ought to be impossible in any institution which professes to be benevolent.

PROMOTIONS.

WE understand that the following promotions and moves will take place in consequence of the deaths of Surgeon-General Bent and Deputy Surgeon-General Dr. Barclay. Deputy Surgeon-General R. K. Prendergast, at present serving at Devonport, will become Surgeon-General, and take over the duties of Principal Medical Officer at Aldershot Camp. Surgeon-Major Dr. Moorhead, now on his way to Hong Kong, will be promoted to Deputy Surgeon-General, and act as Principal Medical Officer at that station; and Surgeon-Major Dr. Kendall, at present serving at Rangoon, will also be promoted to the same rank. The promotion of the latter officer will probably lead to his return to England, as there is no vacancy for a Deputy Surgeon-General in Burmah, nor, we believe, at Madras, to which presidency Burmah is subordinate as regards military arrangements.

LOSS OF LIFE IN COAL MINES.

ACCORDING to an official summary of fatal accidents and lives lost in and about the mines, showing that at the mines classed under the Coal Mines Regulation Act in Great Britain (the Coal Mines Act not being in operation in Ireland until 1874) the fatal accidents amounted to 973, and the deaths (some of the accidents causing more than one death) amounted to 1,069. Of these, 902 of the accidents and 994 of the deaths were at coal and fire-clay mines, nearly all being at coal mines. Amongst the fire-clay mines now comprised by the Act, there are some where coal is not wrought, which were not previously comprised, but the number is small and does not materially affect a comparison of the present accidents and deaths with those reported for previous years. As compared with those of the preceding year, the accidents in 1873 were an increase of 8, but the deaths were a decrease of 66.

FEVER ASYLUM AT HAMPSTEAD.

It is impossible not to sympathise with the objections raised by some of the inhabitants of Hampstead to the proposed fever asylum on the site of the old small-pox hospital there; but it is equally impossible to concur in the conclusion of those who are agitating against it, that there are any really solid public reasons why the proposed arrangement should not be carried out. The past experience of the fever and small-pox hospitals in London and elsewhere, on a great scale and for a series of years, nullifies the allegation that such a hospital involves danger to the neighbourhood. It is of imperative public urgency that they should be planted on sites not too far distant from the centres of the population which they are designed to serve. A fever hospital is not likely to be a popular institution in any neighbourhood; but it must exist, and we do not see that any other site could be selected for the needed metropolitan asylum to which the same objection which the Hampstead Committee urge would not equally apply. Our conclusion is that, in the public interest, the Metropolitan Asylums Board is right to persevere in its intention.

CONVALESCENT HOSPITALS.

Sir Rutherford Alcock, in pleading earnestly and wisely that public charity should largely take the direction of providing convalescent hospitals, suggests, as the best practical means of giving immediate effect to any efforts in this direction, that at each of the general hospitals not already provided with a convalescent home, the governors or managing committee should begin the establishment of a fund to be called the "Convalescent Hospital Fund", for the acquisition of a subsidiary institution of this kind, and invite the friends and supporters of the hospital, either by donations or legacies, to aid in the work. Once set on foot, they may find themselves at any moment in a position to acquire either by purchase or building what is required. He is sanguine that, if public attention be effectually called to the urgency of the want, it will not be long before all that is necessary will be supplied by the liberal hand of charity so rarely appealed to in vain in this land. A more valuable direction could be given to some of the anonymous cheques of £1,000, many of which are wasted on small and ill-conducted "hospitals", so-called, and which are often seriously mismanaged.

THE COLD PACK IN TYPHOID FEVER.

Under the head of "A Cure for Typhoid", we read in the *Times* of December 1st a detailed account, by a clergyman, of a method of treatment that has long been in active use both in this country and abroad. The cold pack, as described by the Vicar of Savernake, is but one of the means of applying graduated cold that are now quite familiar to the medical profession. Considered strictly as a "cure for typhoid", we fear that cold, however applied, has but little claim upon us. Its power of neutralising or eliminating the specific cause of the disease has still to be demonstrated. The general experience of the profession rather points to its inability to abridge the ordinary duration of the fever. We are all familiar with cases of mild typhoid that run a very short course, whether treated at all or left to themselves. Those who have applied this method over an extended series of cases will, we think, agree that it does not interfere in any appreciable degree with the average duration of the intrinsic fever. As a means of advantageously modifying the course of the disease in particular cases, the wet sheet clearly has considerable value if applied to rightly selected cases. When the temperature runs high, averaging over 104 deg. Fahr.; when there are great dryness of surface, headache, flushing, etc., especially if associated with congestion of the kidneys, the plan is unquestionably efficacious. In those instances where the temperature ranges under 104 deg. Fahr., when we have to deal with a feeble heart and much engorgement of the lungs, its use requires great caution, and is by no means free from danger. Whether it has any value in those mild examples that would, whether or no, run a simple course, may be still open to question. Niemeyer, one of the strongest advocates of cold affusion, admits that the continued drain of heat may, even in moderate cases, occasionally induce death by exhaustion. The plan has been largely tried at the Fever Hospital during the last three years, and almost exactly in the terms indicated in the letter of the Vicar of Savernake. We are informed that it is found to entail more discomfort on the patients than the graduated tepid bath, while presenting no equivalent advantage. As is well known, the cold-water treatment of fevers dates back as far as Currie in 1799. Under a modified form, it was extensively applied by Christison in 1817. It has of late years been carried out by a large number of physicians both in this country and on the continent, as the writings of Armitage, Weber, Brand, Wilson Fox, Murchison, and others will freely testify. Whilst thus cordially agreeing with the Vicar of Savernake as to the value of the wet pack in selected cases, we must repudiate the idea of its being in any sense a cure for typhoid fever. The method cannot be regarded as original, and in actual practice we must confess to a decided preference for the graduated bath.

INTERMITTENT WATER-SUPPLY.

We gave an account last week of the extremely interesting and important evidence collected by Dr. Thorne Thorne at Lewes, showing that the intermittent water-supply had become a source of grievous danger to health by the suction-action in the water-pipes during the intervals of filling, which sucked into the water, through local defects in the pipes, polluted surface-water and fluid-sewage. Dr. Alfred Carpenter had, we find, pointed out this source of danger to health very clearly and definitely some time since. It is a very insidious and important source of water-poisoning, and one to which the attention of medical officers of health cannot be too keenly alive.

THE SOLDIERS' COTTAGES AT WOOLWICH.

Diphtheria has been very prevalent in the soldiers' huts on Woolwich Common. The disease has been peculiarly fatal to children, its duration generally being twenty-four hours. The occurrence is generally attributed to overcrowding, as no cases have been reported in the Royal Artillery Barracks. Special provision has been made for the reception of the patients in one of the wards of the Herbert Hospital at Shooter's Hill.

DISEASED MEAT.

At a recent meeting of the Liverpool Health Committee, Dr. Taylor said that, he had reason to believe, that an organised system existed for the purpose of making that town a depôt for diseased meat. The trade appeared in one respect to resemble that of smuggling, inasmuch as the traders could afford to lose four carcases if they could only succeed in running one successfully, and the mere infliction of a £10 or £20 fine was found to have but little or no effect. Suggestions were made that an addition should be made to the staff of inspectors, that the option of paying a fine should be abolished in future, and the offender imprisoned without option.

STATISTICS OF KILLED AND WOUNDED.

The Medical Inspector-General of the French Army, M. Chenu, whose statistical and clinical observations on the Crimean and Italian campaigns were exceedingly valuable, has published a similar work on the last war. He reports the losses sustained by the French to have been as follows:—Killed, disappeared, or died of wounds and diseases, 138,871; wounded by the enemy's fire, 143,000; men disabled by marching, 11,421; 11,941 missing are treated as dead. These figures include 2,881 officers killed or who died of wounds and disease, and 96 missing, with 17,240 prisoners who died in Germany, 1,701 in Switzerland, and 124 in Belgium. While 17,240 deaths, then, occurred in captivity, only 1,220 soldiers were killed at Gravelotte, the bloodiest battle of the war. The German losses were:—Killed or died of wounds and disease, 40,741; missing and treated as dead, 4,000; wounded, 127,867. To these have to be added 1,795 killed, 6,690 wounded, and 1,539 missing in skirmishes, patrols, and slight engagements. The Germans had 44,000 deaths, the French 138,871; the Germans 127,000 wounded, the French 143,000. The French had 14,421 men disabled by *plaies de marche*—through defective socks, boots, and gaiters, while the Germans suffered but little from this cause. M. Chenu shows that, in the Crimea and Italy, as well as in the last war, disease was more fatal than the sword, this being partly attributable to shortcomings in the commissariat, outfit, and hospital.

PAYMENT OF REGISTRARS.

THE following is an extract from a circular addressed to the "Registrars of the Metropolis, Subscribers and Non-subscribers", by Mr. F. Tupper of South Hackney, Honorary Secretary of the Association of Registrars, on the subject of the weekly returns of mortality referred to in our article in another part of the present number.

"In arranging as to future payment, it is most desirable that some general understanding should exist, and it is recommended that the following scale should be adhered to; viz., 25s. per quarter for the first fifty entries of deaths, or any less number, and twopence for every subsequent entry. . . . It is important, however, that the vestries, and not the medical officers of health, should be treated with, and that temporary arrangements with the latter, which in the meantime will only weaken the Registrar-General's efforts, and may at any moment be determined, or be subsequently repudiated by the vestries, should be avoided."

The Committee of the Association, or Mr. Tupper for them, conclude the address with the following remarkable utterance. They "beg to endorse their hearty concurrence in the sentiments expressed by Major Lyon at a recent deputation to the Home Secretary, on the subject of the municipal government of London", from which the following is an extract.

"Doubtless, some of the 1,000 vestrymen who now inflicted their government upon London would not be in favour of a municipality to rule over the whole, but the people themselves would welcome the change."

CHARITABLE BEQUESTS.

UNDER the will of the late Mr. John Paine of Patcham Place, near Brighton, the Sussex County Hospital at Brighton and Hove Dispensary receive a legacy of £5,000 each, free of duty; the Cancer Hospital, the Asylum for the Blind, and the Metropolitan Free Dormitory Association, £1,000 each.

ST. BARTHOLOMEW'S HOSPITAL.

IN consequence of the resignation of Dr. Harris, of St. Bartholomew's Hospital, and the promotion to the office of physician of Dr. Church, a vacancy occurs in the office of assistant-physician. For this post, two of the casualty physicians of the Hospital—Dr. Brunton and Dr. Hollis—are candidates. Dr. Brunton is widely known as a physician of the highest attainments and original power; and our readers well know how greatly he has already distinguished himself in the prosecution of scientific medicine. Dr. Hollis is also well known as a labourer in the field of medical science, who has already done good work, and from whom much more may yet be expected.

RECENT URBAN MORTALITY.

DURING the last week, 5,296 births and 4,406 deaths were registered in London and twenty other large towns of the United Kingdom. The annual death-rate was 26 per 1,000 in Edinburgh, 35 in Glasgow, and 28 in Dublin. The highest annual rates of mortality per 1,000 in the chief English towns were—London, 30; Leeds, 30; Manchester, 32; Salford, 33; Bradford, 33; Sheffield, 35; Sunderland, 36; and Liverpool, 39. Scarlet fever showed a fatal prevalence in Liverpool, Bradford, Sheffield, and Hull. Small-pox caused 11 of the deaths registered in Birmingham. In London, 2,392 births and 1,925 deaths were registered. The births exceeded the average by 39, the deaths by 203. The annual death-rate rose last week to 30—a higher rate than has prevailed in London since December 1873. This increase was most marked in the deaths referred to diseases of the respiratory organs, and in those of adults aged 40 years and upwards. To the seven principal diseases of the zymotic class, 216 deaths were referred, against 208 and 253 in the two preceding weeks. The deaths from scarlet fever were 97. The deaths referred to diseases of the respiratory organs and phthisis, which in the five previous weeks had steadily risen from 364 to 672, further rose last week to 794, and exceeded the corrected weekly average by 166. Of the 794 deaths, 386 resulted from bronchitis, 176 from phthisis, and 147 from pneumonia. The deaths of octogenarians from all causes, which, in the four weeks ending November 14th, averaged only 44, have risen in the two past weeks to 73 and 86 respectively; the latter number included 13 of persons aged 90 years and upwards. At Greenwich, the mean reading of the barometer last week was 29.75. The mean temperature of the air was 32.8 deg., or 8.2 deg. below the average; and the mean was considerably below the average on every day of the week. Rain fell on two days to the amount of 0.20 of an inch.

MEDICAL STUDENTS.

A PARAGRAPH, headed "Disgraceful Conduct of Medical Students at King's College during an Inquest", having "gone the rounds", several students in question have written to deny the accuracy of the report. It appears that the house-physician, having been called upon to give evidence during an inquest, a few of the students welcomed his appearance in the usual manner. Whereupon, the coroner, with perhaps more haste than discretion, reprimanded them in harsh terms. One correspondent says, "had he spoken as politely as he is reported to have done, no unpleasantness could have occurred; and that, but with one exception, the jury expressed their entire approval of the conduct of the students, which they characterised as being gentlemanly throughout".

ROYAL SOCIETY.

THE anniversary meeting of this Society was held on November 30th, (St. Andrew's Day), when the officers and Council were elected, and the Copley and Royal Medals were presented. The names of the officers and of the recipients of the medals were given at page 625 of the JOURNAL for November 14th.

PUERPERAL FEVER.

SEVERAL fatal cases of puerperal fever have occurred recently at Leicester, and two inquests were held on November 24th. It appeared from the medical evidence that the nurse who had attended one case had been the medium for communicating the disease to two other patients. The Coroner, in his summing up, commented severely on the practice of nurses communicating disease in this manner, and intimated his intention of making a commitment on the charge of manslaughter if he found the practice continue.

SMALL-POX IN VIENNA.

FOR some weeks, there has been an increase in the mortality from small-pox in Vienna; the number of deaths in the week ending November 27th was twenty-five. The victims were mostly children under school-age. As, however, the cases have been very scattered, the *Wiener Medizinische Wochenschrift* thinks that their occurrence is not the result of an epidemic, but rather of the causes which tend to increase zymotic diseases, especially small-pox, in November and December, viz., overcrowding and impure air.

SMALL-POX IN THE DOCKS.

CONSIDERABLE apprehension was caused on Monday last, by the discovery that an emigrant vessel, containing 450 Russian and German passengers, amongst whom small-pox had appeared, had put into the Victoria Docks. Mr. Henry Leach, the port medical officer, immediately visited the vessel, and took prompt measures for isolating the sick, and passing the healthy passengers on to Liverpool, where they were subsequently inspected and passed by the medical officer of that port. One death only is expected to occur.

SCOTLAND.

UNIVERSITY INTELLIGENCE.

THE number of matriculations this year shows an increase of 130, as compared with the last year's muster. The increase is chiefly in the arts and medical faculties.

PROPOSED MATERNITY HOSPITAL IN EDINBURGH.

A PUBLIC meeting in Edinburgh, in reference to the above subject, was held on the 1st inst., at which it was stated that the committee of subscribers to the memorial fund of the late Sir James Y. Simpson, had agreed to hand over the sum of £2,500, in furtherance of the object of establishing a maternity hospital. It was generally resolved that such an institution would be of great value, and entitled to receive cordial support from the citizens; also that all who appreciate the service the late Sir James Y. Simpson rendered to medical science and to humanity, and all who are sensible to the value of chloroform, or who have benefited thereby, should interest themselves in the New Maternity Hospital, with which his name should, in some suitable way, be connected. The hospital is estimated to cost £12,000.

HOSPITAL FOR INCURABLES.

AN influential meeting of the inhabitants of Edinburgh took place on the 1st inst., under the presidency of the Duke of Buccleuch, to devise some means of establishing a hospital for the relief of incurables. It was found that considerable funds existed for the relief of that class, but that it was distributed in the form of pensions, and no provision had been made at present for the benefit of those patients who required nursing. A public appeal had been made in consequence, and the result was that a sum of £2,200 had been subscribed at once, and annual contributions to the amount of £80 promised. A house had been purchased, and was now being prepared for the reception of twenty-two patients, at a cost of £3,000, and an annual expense of £800. An appeal for public subscriptions in support of the movement is about to be made. The inhabitants of Glasgow have also inaugurated a similar movement on behalf of the incurables of that town.

IRELAND.

DR. W. HARGRAVE, late Lecturer on Surgery at the Royal College of Surgeons in Ireland, and representative for that institution in the General Medical Council, died suddenly on the evening of November 24th.

POOR-LAW GUARDIANS AND SANITARY OFFICERS.

AT a meeting of the Athy Board of Guardians, some indignant representatives of the ratepayers made violent demonstration, and agreed to take legal advice, as to whether proceedings could not be taken against Mr. Edward Hamilton, the Vice-President of the Irish College of Surgeons, and Dr. Whistler of Bray, for certain remarks made by them relative to Poor-law guardians in general, at the recent meeting of the profession held at the College of Surgeons, to consider the working of the Irish Public Health Act. We are bound to say, that the remarks of the gentlemen in question were rather severe, and, possibly, not quite parliamentary; but, we are much afraid, that the Poor-law guardians' indignation is not solely due to the brusqueness of their character.

DUBLIN HOSPITAL SUNDAY FUND.

ALTHOUGH considerable portions of the collections have not yet been paid in to the treasurer, yet we state, on good authority, that the sum collected will not fall much short of £3,000, but £2,000 have already been lodged in the Royal Bank of Ireland, and each day adds to the amount. The sum far exceeds the expectations of the promoters, who only estimated the proceeds of the collections at about £1,500. This must be looked upon as a triumphant success for Dublin, considering the opposition which the movement encountered from some institutions. It must also be remembered that the Roman Catholic Church held aloof from the movement, thus depriving a large portion of the population of the opportunity of contributing. The population from which the collections were drawn numbers but little over 100,000, so that the amount collected on this, the first trial of the movement in Dublin, will bear favourable comparison with initiative efforts elsewhere.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS.

AT a meeting, held on November 18th, it was determined that four Vice-Presidents should be appointed for the future; and accordingly Sir Dominic Corrigan, and Drs. William Stokes, Alfred Hudson, and Henry Kennedy were selected. As the last gentleman vacated his seat on the Council by becoming a Vice-President, a ballot took place for the vacancy, when Dr. S. Mac Swiney was successful.

MEDICAL STUDENTS.

A NON-MEDICAL correspondent of a Dublin contemporary, having made himself personally acquainted with the habits and manners of the medical students of the Coombe Lying-in Hospital, pays a high tribute of respect to their genuine worth, consideration, and tenderness in the discharge of their duties. Dr. John Ringland, as senior medical officer of that institution whilst wondering how a "layman" can have had the opportunity of going behind the scenes of hospital practice, bears willing testimony to "the patience, devotion, and courage, as well as professional knowledge, ever manifested by the large majority of the medical students under his notice, and these carried out despite the many drawbacks of 'sickness, sorrow and dirt' they have hourly to encounter in the discharge of their duties". We would, however, remind Dr. Ringland that these qualities are not confined to the students of any particular hospital, but are common to all. The old type of medical cadet, as portrayed by Albert Smith, Dickens, and Kenny Meadows, has long ceased to exist, even if he ever existed except in the brain of the novelist.

HOSPITAL SUNDAY IN BELFAST.

ON Thursday, November 26th, a meeting of the clergymen of this town was held for making arrangements for this charitable movement, when it was determined that the collections should be made in all the churches on the last Sunday in the year.

TETANUS AFTER SYME'S OPERATION TERMINATING FATALLY.

MR. BARTON, of the Adelaide Hospital, Dublin, has lately published a case of operation by Syme's method for disease of the foot, which probably had been originally of an epithelial character. The patient, a broken-down female, aged 43, was operated on October 6th, Esmarch's elastic bandage being used, which had the effect of facilitating the tedious dissection of the heel. After a couple of days, the flaps sloughed, and on the 15th tetanic symptoms set in, for which chloroform was given by inhalation, and morphia injected hypodermically, while enemata of beef and brandy were administered. The patient, however, succumbed on the 17th, two days after the tetanic spasms occurred.

THE PUBLIC HEALTH ACT.

AT a meeting of the medical officers of Naas Union, held on November 28th, to consider the salaries fixed on by the Board of Guardians for the duties to be performed under the Public Health Act, it was resolved unanimously that the following remonstrance be addressed to the Local Government Board:—

"We, the medical officers of the Naas Union, desire to bring under the notice of the Local Government Board the insufficient salaries allotted to us by the Board of Guardians as sanitary officers under the Public Health Act, and beg to represent that, from the experience we already have had of the duties, we find they will be unpleasant, onerous, invidious, and calculated to bring us into constant collision with the public. We beg further to express our opinion that it seems unfair to ask Boards of Guardians to fix salaries for officers whom they believed should never have been appointed, or for whose services they think the country has no need. We are further of opinion, if the Act is to be carried out, some encouragement should be given to medical men to perform their duties in an independent manner, by giving them fair and reasonable salaries. We, therefore, submit our case to the Local Government Board, assuring them we have every confidence that they will fix for us a fair remuneration."

The Poor-law Guardians of the Tyrone Union, at a late meeting having refused to appoint a local sanitary officer, although requested to do so by a deputation of the inhabitants, a memorial has been prepared for presentation to the Local Government Board, requesting the appointment under a sealed order, as it is believed that the state of the town requires it, especially owing to an outbreak of scarlatina which at present exists.

SIR RANALD MARTIN.

THE profession will have learnt with general regret the sudden demise, at a ripe age, of Sir Ranald Martin. Widely known and much respected for his character and abilities, he was warmly beloved by a large circle of friends. Not many days have passed since his cheery voice and warm-hearted counsels encouraged and aided us in our editorial labours on some points of Indian sanitation, which will shortly come under discussion in these columns. We purpose giving a full biographical notice, with a portrait of this fine old English gentleman and high-minded physician in our next impression, and shall postpone till then any further notice of his honourable professional life and important public labours.

THE BRITON MEDICAL AND GENERAL LIFE ASSOCIATION.

We have received several communications from members relating to the attacks on the financial position of this office, which have appeared in the *World* newspaper, and which have naturally caused serious uneasiness. We have communicated with the actuary and secretary of the company, and we are requested to state that the directors are about to issue a circular to the shareholders respecting these attacks, and that a special investigation of the affairs of the company will at once be made by independent actuaries.

SCIENTIFIC GRANTS.

THE British Medical Association, at its last annual meeting, authorised a grant for 1875 of sums not to exceed a total of £200, in aid of original researches in medicine and the allied sciences. At the last meeting of the Committee of Council, the time for receiving applications for aid from this grant was extended to December 27th, 1874. The Committee appointed to receive and report on the applications consists of—Dr. Sibson, F.R.S. (Chairman), the President of the Council, Mr. Southam, and the Treasurer, Dr. Falconer, as *ex officio* members; Mr. Alfred Baker, Dr. Bastian, F.R.S., Dr. Lauder Brunton, F.R.S., Mr. Callender, F.R.S., Dr. Michael Foster, F.R.S., Mr. Ernest Hart, Dr. Sharpey, F.R.S., Dr. Burdon Sanderson, F.R.S., Dr. W. F. Wade, Mr. Wheelhouse, and Dr. S. Wilks, F.R.S. Applications should be addressed to Dr. Sibson, Chairman of the Committee, 59, Brook Street, or to the General Secretary of the Association, Great Queen Street, W.C.

HABITUAL DRUNKARDS.

THE following Committee of the Birmingham and Midland Counties Branch of the British Medical Association has been appointed, with power to add to their number, "to consider the best way of furthering legislation for the care and restraint of habitual drunkards"; Mr. W. C. Garman (President of the Branch), Dr. James Russell, Mr. Vincent Jackson, Dr. Wade, Dr. James Thompson, Mr. Newnham, Dr. Rickards, Dr. Harrison, Mr. Manby, Dr. Johnston, Mr. Manley, Mr. Lawson Tait, Dr. Foster, Dr. Parsey, Dr. Bodington, Mr. Watkin Williams, Mr. Solomon, Mr. West. The first meeting of the Committee was held on Tuesday, November 17th. Mr. Garman was elected Chairman, and Dr. Bodington Secretary of the Committee. After some preliminary discussion, the following resolution was proposed by the Chairman, seconded by Dr. Russell, and carried unanimously:—"That the secretary of this committee be requested to put himself in communication with the members of the Select Committee on the late Mr. Dalrymple's Bill, and others, with a view to obtain information on the subject."

THE PAYMENT OF THE IRISH SANITARY OFFICERS.

A DEPUTATION from the King and Queen's College of Physicians in Ireland waited on Sir M. Hicks Beach, Chief Secretary for Ireland, to urge upon him the importance of insisting upon the payment of proper salaries to the Poor-law medical officers employed under the Public Health (Ireland) Act, 1874. The deputation consisted of Dr. Duncan (President), Dr. Henry Kennedy (Vice-President), Dr. J. Magee Finny (Registrar), Rev. Dr. Haughton, Dr. J. W. Moore, Dr. Sinclair, Dr. Duffey, Dr. Evory Kennedy, Dr. Johnson, Dr. Churchill, Dr. Grimshaw, Dr. Hayden, Dr. Banks, Dr. Cryan, Dr. Grattan, and Dr. William Moore. Sir Alfred Power, Vice-President of the Irish Local Government Board was present with Sir M. Beach. The following memorial was read by the Registrar, Dr. Finny.

To the Right Honourable Sir Michael Edward Hicks Beach, Bart., M.P., Chief Secretary for Ireland.

The memorial of the President and Fellows of the King and Queen's College of Physicians in Ireland,

Humbly showeth,—That your memorialists desire to express a general approval of the provisions of the Public Health (Ireland) Act. That they regard the appointment of the dispensary medical officers as sanitary officers, under section 10 of the Act, with much satisfaction, as a recognition of the necessity of placing the medical profession in the foremost rank of an organisation for purposes of public health. That they are fully conscious of the number, significance, and novelty of the duties which will have to be discharged by the sanitary officers under the Act, the most important of which duties can only be efficiently performed by medical men, in consequence of their education, qualifications, and training. That the responsibility of carrying into effect the principal of these duties—namely, the reporting upon nuisances, the investigation of outbreaks of preventable disease, the prevention of the spread of sickness, the examination of air, water, and food, the drawing up of periodical reports on the health of sanitary districts, and the compilation of statistics of disease—is especially imposed upon the medical sanitary officers. That the remuneration so far offered by the local sanitary authorities to the medical officers of health is quite inadequate, when regard is had to the multifarious and very responsible nature of the duties to be performed by them, and to the qualifications required of them. Lastly, and especially, that the interests of the community at large imperatively demand—on the grounds equally of humanity, justice, and economy—that the Public Health Act should be carried into effect in the best manner, and by willing officers. For all these reasons, your memorialists respectfully pray that you will take steps to secure a favourable consideration of the question of the apportionment of equitable and sufficient remuneration to the sanitary medical officers of Ireland in their endeavour to advance the public weal. And your memorialists will ever pray. Signed on behalf of the College,

JAMES F. DUNCAN, President.
J. MAGEE FINNY, Registrar.

The President then addressed Sir M. Beach, and pointed out the importance of the various prayers set forth in the memorial.

The memorial was also supported by Dr. Grattan, Dr. Kennedy, Dr. Haughton, Dr. Grimshaw, and Dr. William Moore.

Dr. Haughton read portions of a letter from a Poor-law medical officer, stating he would rather pay for leave to relinquish his post as medical sanitary officer, than continue to discharge its unpleasant duties for the wretched remuneration offered.

Dr. Grimshaw stated he believed that the proper method of estimating the salaries of the officers would be according to the area, population, and number of houses in the district, and showed that, while the small salaries awarded by rural sanitary authorities would scarcely pay for carrying the officer through the district; that in towns the salaries would not pay for the mere writing up of the reports.

The Chief Secretary, in reply, stated "that it is clearly the duty of the Government to see that, as far as depends on them, the duties of the officers appointed under this Act shall be efficiently performed, and that the officers shall be fairly and properly paid for the performance of their duties".

We believe the result of the interview to be entirely satisfactory, and hope that Sir Michael will not be prevented by others from carrying out what he declares to be the duty of the Government.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

Treatment of Parochial Medical Officers.—Hospital Sunday Collections for the Infirmary.

WE should like to point out to those of the profession who hold, or desire to hold, parochial offices, a circumstance which has recently happened in this city. At a recent meeting of the Edinburgh Parochial Board, a letter was read from Dr. John Smith, resigning his appointment as Medical Officer to the Poorhouse. Dr. Smith has held the office for fifty-seven years with every satisfaction to the Board and the public, and continued efficiently to discharge the duties until advancing age and a very serious illness incapacitated him from doing so any longer; and yet, after all this long and meritorious service, there is no provision made for a retiring allowance. The Board showed their appreciation of Dr. Smith's services by a vote of sympathy with him in his illness; but it surely is anomalous that no more substantial token of satisfaction should be forthcoming. Fortunately, in this case it is a matter of comparative indifference whether such a provision exists or not, and we simply mention it as an exaggerated instance of an anomaly that is constantly occurring. In most other professions, when an old and faithful servant retires from work, a retiring allowance or pension is looked forward to as a matter of course; and the same should be the case with the medical profession, the more so as the work is constant and exacting, and the remuneration miserably small.

The annual collection in the churches for the benefit of the Royal Infirmary was held on Sunday last, but the amount collected has not yet been reported. In many of the places of worship, earnest appeals were made from the pulpit, and high testimony was given to the efficiency and value of the institution.

ASSOCIATION INTELLIGENCE.

SOUTH OF IRELAND BRANCH.

THE next meeting for scientific business will take place on Wednesday, December 9th, in the Theatre of the Royal Cork Institution. Cases of interest have been promised, viz.: Cardiac Embolism, with Amputation of both Thighs (Dr. Day), unavoidably postponed from last meeting; exhibition of an extraordinary and unprecedented case of Complete Removal of half of the Calvaria, from a Burn, and recovery (Dr. Hayes, Tralee); Microscopical Preparations of Pathological conditions of the Kidney (Dr. R. Atkins).

The students of the Queen's College, Cork, attend the meetings.

H. M. JONES, *Honorary Secretary.*

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

THE next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, December 10th, at 4.30 P.M.; H. T. LANCHESTER, M.D., in the Chair.

The following papers are promised. Dr. Moxon: On Paralytic Tremor as a Symptom. Dr. Walters: Cases of Naso-Pharyngeal Polypus; and Poisoning by Arsenic and Hydrocyanic Acid. Dr. Ilott: Clinical Cases and Specimens from Croydon General Hospital.

The Chairman kindly invites members and their friends to lunch at Park House, Croydon, at 2 P.M.

Dinner at 6 P.M., at the Greyhound Hotel; charge, 7s., exclusive of wine. JOHN H. GALTON, M.D., *Honorary Secretary.*

November 25th, 1874.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting will be held in the Council Room of the Midland Institute, on Thursday, December 10th, 1874, at half-past three o'clock P.M. precisely.

Mr. Watkin Williams will move—"That, in accordance with the recommendation of the Council, the Branch subscription be raised from 2s. 6d. to 5s. *per annum*; the increased subscription to confer on all members the privileges of membership of the two sections of the Branch."

Mr. Hugh Ker will move—"(1) That in Rule 9, line 7, the words 'at least a week previously' be altered to 'at least two weeks previously'; and (2) That a copy of the Laws of the Association and the Rules of the Branch be supplied to each member of the Branch."

The following papers are promised:—Historical and Clinical Notes on the Past, Present, and Future of Surgical Practice, by Mr. Sampson Gamgee. A Case of Perinephric Abscess, with Remarks on the Diagnosis of such Abscesses, from those arising from Spinal Caries, by Mr. G. H. Evans.

Members are invited to exhibit Pathological Specimens at the commencement of the meeting.

BALTHAZAR FOSTER, M.D.,
JAMES SAWYER, M.D., } *Honorary Secretaries.*

Birmingham, December 3rd, 1874.

MIDLAND BRANCH.

A SPECIAL general meeting of the Branch will be held in the Board Room of the County Hospital, at Lincoln, on Friday, December 18th, at 7 P.M.; T. SYMPSON, F.R.C.S., President; A. H. DOLMAN, M.R.C.S., President-elect.

Business.—To elect an Honorary Secretary and Treasurer for the Branch, and eight ordinary Members of Council, according to Rules 7 and 8; to elect an Honorary Secretary for Nottinghamshire; to elect new Members, and transact other business.

The laws governing the Branch, passed at a general meeting held at Boston, on 24th September, were confirmed at a meeting of Committee of Council held at Birmingham on November 4th.

In order to facilitate arrangements, members intending to be present are requested to communicate at once with

C. HARRISON, M.D., *Honorary Secretary.*

Lincoln, November 28th, 1874.

CORRESPONDENCE.

MR. STANSFELD, MR. MYERS, AND THE CONTAGIOUS DISEASES ACT.

SIR,—May I be allowed to make some addition to your editorial comments of last week on Dr. Nevins' letter with the above-named title, as his remarks so specially refer to me? At the same time, let me thank you for the support you kindly gave me.

My letter has attracted far more attention than I could have expected, and it was not at all intended to do battle with men who revel in statistics, but rather to give information to impartial observers who wish to obtain a fair practical view of a question without much labour. In that letter, I showed unmistakably the fact of syphilis having been almost stamped out at Windsor, which no statistics of Dr. Nevins can disprove, though he may consider my evidence, however clear, to have been far too limited to be of value. How long might we not have been left in doubt regarding the identity of Dr. Livingstone's remains had not the conclusive evidence of Sir William Fergusson been obtained of the ununited fracture of the humerus?

I admit, that Dr. Nevins who, I presume, has had no personal experience with the army, has fair cause to be led astray by the *Blue-book* venereal returns from Windsor from the years 1867 to 1871 inclusive; and, I must confess, to having experienced much momentary surprise on reading them.

It certainly appears that, though the disease has been infinitely less in Windsor than in London, there has been a considerable increase at Windsor since the Act was enforced, viz., in 1868. To the very low rate of syphilis at Windsor in 1867, I must make special reference, as it has attracted so much attention. For nine months of that year, the Scots Fusileer Guards were quartered there; and it so happens that, in that regiment, the soldiers were not then inspected for venereal disease; and, as the soldier has a natural aversion to the restraints of hospital life, and, therefore, will not report himself sick if he can avoid so doing, I think it may be granted, that the cases admitted into hospital of that regiment in 1867 could have been no criterion of the number of men suffering from primary disease; or, at least, that no fair comparison could be drawn between the ratio of admissions in that regiment and in those which succeeded it, in which careful medical inspections were made weekly. To give point to this observation, I may state that I have been informed, that at a recent inspection of a battalion of Scots Fusileer Guards for venereal disease before proceeding to Windsor, twenty-five cases were detected and sent to hospital, and that medical inspections are now ordered to be made regularly.

In 1868, the year in which the Act was enforced at Windsor, the ratio of admissions was undoubtedly very high; but, as it only came into operation in April, how could it be expected to be productive of benefit in that year, when it is considered what difficulties it has to overcome when first brought into operation in a district?

The four following years show a fluctuation at a very low rate compared with London, and, in a small place like Windsor, fluctuations must occur; for, where the number of women is limited, the number of diseased men would be very much influenced by the fresh arrival of one or two women suffering from disease; for, to write more plainly, dissolute men soon hear of any new comer, and, whether diseased or not, she for a time is the special attraction.

General statistics of Windsor, as those quoted by Dr. Nevins, must be open to great fallacy, owing to the fact of the frequent interchange of battalions and the consequent frequent influx of fresh disease from London; and, therefore, when taken *en masse*, the returns, by including all cases of infection, whether contracted in or out of the district, cannot be such a true guide to the real benefits of the Acts as can be shown by more complete analyses, viz., by subdivision into two classes. Even with this disadvantage, however, I think the following statistics of the Coldstream Guards, which I give with the sanction of Surgeon-Major Lay, have a very important bearing upon the question, for, as they extend over a period of ten years, and refer to this regiment alone, they at least avoid any source of error due to the different habits and customs of the various regiments.

Returns of Admissions for Primary Syphilis in the Coldstream Guards whilst quartered at Windsor during the Years 1865 *to* 1874 *inclusive.*

Battalion.	Period.	Weeks.	Average Strength.	Primary Sores contracted in and out of district.	Annual Ratio per 1,000.
First	1865 { April 8th to August 25th }	20	.. 707	.... 49	180.19
First	1868 { March 7th to August 28th }	25	.. 608	.... 64	218.95
Second ..	1868-69 { Sept 5th to Feb. 26th }	25	.. 700	.... 57	169.37
First	1870-71 { Sept. 3rd to March 3rd }	26	.. 700	.... 33	74.28
Second ..	1871-72 { Sept. 30th to April 5th }	27	.. 744	.... 29	75.07
First	1874 { May 2nd to Sept. 25th }	21	.. 656	.... 15	56.62

It can thus be seen that, in the first three periods, the ratio of disease was very similar to what is found in London, and though the Act was latterly in force, it had not had time to be of practical use. Then, an interval of a year occurs, during which the system has time to get into good working order, and now observe how great and regular has been the diminution of disease. Will Dr. Nevins consider that these statistics "are based upon a far too limited area, both in time and number of men", to be of any value?

In conclusion, I wish to apologise for the length of this letter, and to state that, as before it can appear in print I shall be on my way to Africa, I shall be unable, for a short time, to take any further part in the discussion of this most important subject. I am, etc.,

A. B. R. Myers, Surgeon, Coldstream Guards.

Tower of London, November 30th, 1874.

POISONOUS DOSE OF MORPHIA FOR CHILDREN.

Sir,—Ever since 1858, I have been in the habit of using for children's coughs, etc., a solution made with forty grains of acetate of morphia to every ten ounces of fluid, four grains of acetate of morphia to each ounce, or one grain in every one hundred and twenty drops. Each drop is a full and safe dose for a child a year old. For an infant six months old, it would not be safe to give more than half a drop. Now, as one-third of a grain of acetate of morphia equals one grain of opium, it follows that one-fortieth part of a grain of opium can be safely given to a child a year old; but, for one only six months old, one-eightieth part of a grain should not be exceeded. As fifteen minims of tincture of opium contain nearly a grain of opium, you will see that half a minim is a full dose for a child six months old.

In a case of poisoning, we must assume that the morphia would vanish from the interior of the stomach, and the unlucky analyst would search in vain for any meconates.

Nevins's *Analysis of the Pharmacopœia* states that a quarter of a grain of acetate of morphia about equals a grain of opium: one-sixtieth of a grain of opium for a child six months old. I know by experience that the doses mentioned cannot safely be exceeded.

November 14th, 1874. I am, etc., S. W. S.

*** Practice proves that a line cannot be drawn at the *exact spot*, as our correspondent seems to suppose, where any given drug becomes a poison. Of course, the reason is plain, viz., that the action of a drug is largely influenced by idiosyncrasy, strength, and a hundred other causes. It is perfectly true that half a minim of laudanum may be a full dose for a child six months old. It is also true that one minim has proved fatal to a child seven days old, and two minims to a child five days old, and five minims to a child nine months old. But these are not ordinary cases. They prove, however, that opium is a dangerous drug to play with, especially with children. As regards its discovery after death, it is quite true that it may escape chemical analysis. It is to be remembered that the portion of the poison found in the stomach after death is not the portion that destroyed life, but the portion over and above that which was required to kill. For a poison, therefore, to escape an analyst, the amount given must be exactly that needed to take away life and *no more*. This may happen now and then. It is not likely to occur in four consecutive cases like those at Romford, nor is it at all within the limits of probability that the deaths of all four children were caused by a minim dose of the drug. The symptoms alone are sufficient proof they were not. We do not mean to say that there are not other causes why poisons may not be discovered after death, but with these we are not concerned just now. Lastly, we may say we have notes of two cases—one where a child died from the effects of four minims, and one from six minims of laudanum. In both cases, the reaction of morphia and meconic acid were obtained in the contents of the stomach.

THE MURRAY TESTIMOMIAL FUND.

Sir,—We shall feel obliged if you will allow us space for a final statement respecting the Murray Memorial Fund. This statement would have been made earlier but for the delay necessarily attending the completion and erection of the memorial bust. The bust has been executed by Joseph Durham, Esq., A.R.A., and is now placed in the museum attached to the Middlesex Hospital. It will be in the recollection of subscribers, that two funds were opened in London, one called the Memorial Fund and the other the Scholarship Fund. The London subscription towards this latter amounted to £80.

The balance of the Memorial Fund has been handed over by us, in fulfilment of the intention of the London Committee, to the Aberdeen Committee for the Scholarship Fund, making a sum total of £169 for the conjoint Aberdeen University and Middlesex Hospital Scholarship Fund.

Amount collected.	£ s. d.	*Paid.*	£ s. d.
For Memorial Bust ...	221 14 0	Mr. Durham, for bust and bracket	126 0 0
" Scholarship Fund	80 0 0	Stationery, printing, and postage	6 0 0
Total	301 14 0	Total	132 0 0
Received	301 14 0		
Paid...	132 0 0		
Balance	169 14 0	Handed over to Aberdeen Committee.	

The amount already collected for the Scholarship Fund now amounts to over £600. We are, etc.,

Campbell De Morgan, *Treasurer.*

Arthur W. Edis, }
Henry Morris, } *Honorary Secretaries.*

MEDICAL CHARITY.

Sir,—Your correspondent, "An Old Member of the Association", has well pointed out the futility of much of our so-called "charity". The public have been taught to believe that the present system is worthy of support; and, so long as medical men continue to foster this belief, there is little hope of improvement. If the evils of indiscriminate charity were known, the uninitiated public would respond less freely to the numerous "appeals" which are constantly being put forward by energetic secretaries and others, actuated too often by lower motives than the "enthusiasm of humanity". But, until medical men honestly attempt to reform the present system by exposing its evils, and refusing, at all hazards, to be the unpaid servants of "a charitable public", we can expect no other results than improvidence amongst patients, and an ever increasing struggle for existence amongst doctors.

As your correspondent pertinently asks, "Where is the charity?" From my experience of committees of management and out-patient practice, I cordially endorse his opinion that "charity is no term for such a system". It is the product of misdirected energy, and has gradually attained its present proportions by the support of a public, ignorant alike of its practical working and effects. Our profession has too long co-operated in this system; and hence the general impression that "whatever is, is right". Indeed, the great obstacle to any reform in the matter would seem to be the apathy of medical men.

The time has surely now arrived when the whole subject should be submitted to the earnest consideration of the Council of the British Medical Association, or some other body competent to deal with it.

London, November 16th. I am, etc., A. P.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE Morpeth Rural Sanitary Authority have increased the salary of Dr. Clarkson, the Medical Officer of Health, from £50 to £100 *per annum*.

APPOINTMENTS OF SUPERINTENDENT MEDICAL OFFICERS OF HEALTH IN IRELAND.

Boyd, John C., M.B., appointed to the Strabane Rural Sanitary District.
Currey, John E., M.D., appointed to the Lismore Rural Sanitary District.
Dobson, Robert J., L.R.C.S., appointed to the Mohill Rural Sanitary District.
Hearn, G. M., L.K.Q.C.P.I., appointed to the Bawnboy Rural Sanitary District.
Hornibrook, William B., M.D., appointed to the Kinsale Rural Sanitary District.
James, Charles E., M.B., appointed to the Kilkenny Urban Sanitary District.
Keys, R. A., L.R.C.P.Ed., appointed to the Stranorlar Rural Sanitary District.
Lane, Wm., M.D., appointed to the Newtownlimavady Urban Sanitary District.
Martin, William B., L.R.C.S., appointed to the Newtownards Urban Sanitary District.
M'Bride, Andrew, L.R.C.P.Ed., appointed to the Newry Urban Sanitary District.
Mapother, Edward D., M.D., appointed to the Dublin Urban Sanitary District.
Massey, David C., L.R.C.P.Ed., appointed to the Tobercurry Rural Sanitary District.
Mayberry, George M., M.D., appointed to the Kenmare Rural Sanitary District.
Nicholas, G. Clayton, L.R.C.P.Ed., appointed to the Galway Rural Sanitary District.
O'Kelly, Joseph, M.D., appointed to the Mount Bellew Rural Sanitary District.
Ringwood, John, L.K.Q.C.P.I., appointed to the Kells Rural Sanitary District.
Ross, Arthur, M.D., appointed to the Ballymena Urban Sanitary District.
Sampson, Francis C., L.R.C.P.Ed., appointed to the Scariff Rural Sanitary District.
Shaw, Wm., M.D., appointed to the Lurgan Urban Sanitary District.
Smartt, Francis W., M.D., appointed to the Ballymahon Rural Sanitary District.
Spearing, Andrew, M.D., appointed to the Antrim Rural Sanitary District.
Wall, John, M.D., appointed to the Cork Rural Sanitary District.
Woods Thomas, M.D., appointed to the Parsonstown Rural Sanitary District.
Yorke, Christopher F., L.K.Q.C.P.I., appointed to the Granard Rural Sanitary District.

APPOINTMENTS OF MEDICAL OFFICERS OF HEALTH.

Cox, Albert George, M.R.C.S.Eng., appointed Medical Officer of Health for the Misterton Subdistrict of the Beaminster Rural Sanitary District.
Gould, Henry, M.R.C.S.Eng., appointed Medical Officer of Health for the Northfleet Urban Sanitary District.
Steele, Henry Octavius, M.R.C.S.Eng., appointed Medical Officer of Health for the Hunsworth Urban Sanitary District.
Webb, John Staines, M.R.C.S.Eng., appointed Medical Officer of Health for the Marshwood Subdistrict of the Beaminster Rural Sanitary District.

POOR-LAW MEDICAL APPOINTMENTS.

Acheson, C. T. Findlay, M.D., appointed Medical Officer for No. 2 District of the Henstead Union, Norfolk.
Beamish Robert T., M.D., appointed Medical Officer for the Derwent District of the Weardale Union, Durham.
Bryden, Robert F., L.R.C.P.Edin., has been appointed Parochial Medical Officer for Boleskine and Abertarff, Inverness-shire, *vice* Ferguson, resigned.
Coleman, Henry W., M.R.C.S., appointed Medical Officer for the Armley District and the Workhouse, Bramley Union.
Cox, Albert G., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for the Misterton District of the Beaminster Union, Dorsetshire.
Dickson, John, M.B., appointed Medical Officer and Public Vaccinator to the Frodinghom District of the Driffield Union, Yorkshire.
Herman, George E., M.R.C.S.Eng., appointed Resident Medical Officer to the St. Matthew, Bethnal Green, Workhouse and Infirmary.
Herring, John F., L.R.C.P.Ed., appointed Medical Officer for the Lower District of the Builth Union, and Public Vaccinator for the whole Union.
Kerr, E. W., M.B., appointed Medical Officer to the Kinlough Dispensary District of the Ballyshannon Union.
Lancaster, Joyce, M.R.C.S.Eng., appointed Medical Officer to the Cross Roads Dispensary District of the Dunfanaghy Union, co. Donegal.
Langan, Francis, L.K.Q.C.P.I., appointed Medical Officer to the Shercock Dispensary District of the Bailieborough Union, co. Cavan.
Lee, B. J., L.S.A., appointed Medical Officer to the North Wingfield District, Wakefield Union.
O'Neill, Patrick, L.K.Q.C.P.I., appointed Medical Officer to the Workhouse Infirmary and Fever Hospital of the Athy Union, co. Kildare.
Sharp, Henry, M.R.C.S., appointed Medical Officer for the Blackpool District, Fylde Union.
Terry, Charles, M.R.C.S.Eng., appointed Surgeon to the Newport Pagnell Workhouse and Hospital.
Torrance, George Henry, M.D., appointed Medical Officer to the Bray District of the Cookham Union.
Trousdell, John E., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the parishes of Westray and Papa Westray, Orkney.
Squire, Samuel N., M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for No. 2 District of the Lexden and Winstree Union.
Wrangham, John Dunn, M.D., appointed Medical Officer to the Hainton District of the Louth Union.
Wybrants, Joseph H., L.R.C.S.I., L.K.Q.C.P.I., appointed Medical Officer to No. 3 District of the Frome Union.

VACCINATION REGULATIONS.

SIR,—In your issue of November 7th, I observe a letter from Dr. Stephen of Fettercairn on "Vaccination Regulations", and it affords a strong argument for verbal alteration of Schedule A of the Compulsory Vaccination Act. This Schedule, as it stands at present, can only be given by the person who actually *performed* the operation, and by no one else, so that the medical man to whom the successfully vaccinated child was presented was quite justified in refusing to certify to that effect on Schedule A, and could only have done so, as I have repeatedly, on Schedule C, which requires the certifier to give as his opinion that the child is insusceptible of the vaccine disease, adding, "in consequence of successful vaccination". Schedule A, as it stands at present, is as follows: "I, the undersigned, hereby certify that , the child of , aged , of and residing at No. , Street, in the parish or district of , in the county of , has been successfully vaccinated by me." Date . Signature . The alteration I would suggest is simply to delete the words "by me", so that any qualified practitioner would be in a position to grant a certificate after inspecting the child. This alteration might be objected to on the ground that it would admit of vaccination being performed by midwives or non-qualified persons; but the Act specifically says that the operation must be performed by a *registered* medical practitioner; and if people are willing to pay a fee to one medical man for vaccination, and a fee to another for certification, why hinder them? I am, etc.,

Craigveigh, Aboyne, Nov. 7th, 1874. A. D. KEITH, M.B.

MILITARY AND NAVAL MEDICAL SERVICES.

DEPUTY SURGEON-GENERAL MACKINNON, C.B., will perform the duties of Principal Medical Officer at Aldershot until the appointment of a successor to the late Surgeon-General Bent.

DEPUTY SURGEON-GENERAL H. G. GORDON, M.D., principal medical officer at Woolwich, will, in all probability, succeed the late Dr. Barclay as head of the Statistical Branch of the Army Medical Department.

The annuities of 1874 from the Bengal Medical Retiring Funds have been assigned to Drs. J. B. Harrison and C. R. Francis of the effective list, and Drs. Saunders, Small, Mathias, Williams, and Farquhar of the retired list.

MR. EWING, the dispenser at the Royal Naval Hospital at Great Yarmouth, has been appointed dispenser at Hong Kong; and, in recognition of his lengthened services, and the status now enjoyed by officers of his rank, a free passage for himself and wife will be provided at the public expense.

MOVEMENTS OF ARMY MEDICAL OFFICERS. — Surgeon-Major Chartres of the 18th Hussars has left Longford for Chichester to assume medical charge of the 43rd Brigade Depôt, to which he has been posted, and is succeeded in medical charge of the regiment by Surgeon Thorburn.—Deputy Surgeon-General R. K. Prendergast, having completed his period of service as Principal Medical Officer in the West Indies, has been appointed to the Staff of the Western District, to which Surgeon-General Bent, now at Aldershot, had been told off.—Deputy Inspector-General J. J. L. Donnet has been appointed to Malta Hospital, *vice* Mason, promoted.

OBITUARY.—Inspector-General R. Chambers, M.D., surgeon-major on the half-pay list, late of the 35th Regiment, died at Cloverhill, Sligo, on November 14th. The deceased joined the Army October 4th, 1839; became surgeon in August 1837; surgeon-major, October 1859; deputy inspector-general, May 1863; and retired upon half-pay, with the rank of inspector-general, December 1869. He served in the Indian mutiny campaign, and accompanied Sir John Douglas's Field Force in the Shahabad District as senior medical officer; was present in the actions of Raresath, Beheea, Mujhowlee, taking of Jugdespore, and night attack of Sullya Dohar, on the Rymon.—Staff-Surgeon R. G. FitzGerald died at Fort Lahore on September 30th. He joined the Army March 31st, 1868.

SURGEON-MAJOR A. LEITH ADAMS, M.D., F.R.S., lately attached to the London recruiting district, has been appointed Professor of Zoology in the Royal College of Science, Dublin, and will retire upon half-pay in order at once to take up the duties of his new position. Dr. Adams joined the Army, December 1st, 1848. He served in medical charge of a detachment of the 22nd Regiment, with the expeditionary force under Sir Sidney Cotton, in 1854, against Mohmund tribes on the Peshawur frontier (medal with clasp). Surgeon-Major Adams is succeeded as medical officer of the London Recruiting District by Surgeon-Major D. A. C. Fraser, M.D., who last year went out to the Gold Coast and served during the Ashantee war. Besides being most active in the performance of his duties, Dr. Adams has closely studied the subject of recruiting; and the articles he has contributed to the professional journals conclusively point to his fitness for the position he has lately held.

DR. DE CHAUMONT'S PAMPHLET ON THE ARMY MEDICAL DEPARTMENT.

> "I hold every man a debtor to his profession, from the which as men of course doe seeke to receive countenance and profit, so ought they of duty to endeavour themselves, by way of amends, to be a help and an ornament thereunto."
>
> LORD BACON.

SIR,—To go into the mass of figures and algebraical calculations with which this pamphlet is crowded, would answer no useful purpose, for what we have to consider in every day life is, not the theoretical but the practical advantages of any profession or station, judged by results. The assistant professor of hygiene at Netley sums up the advantages of the army medical service as below.

A certain, but small provision for life.
Not very arduous work.
Leave to be counted upon every year.
A provision for sickness and a family.
A small pension.

He admits, *per contra*, that the mortality among army medical officers is much greater than among civilians, and that the relative value of money is an important item in the consideration. He concludes by asserting, that the medical officers are 43 per cent. better off than they were under the warrant of 1804, and 18 per cent. better off than they were under the warrant of 1840. Now, sir, this pamphlet would be scarcely worth being referred to were it not that these statements will be at once seized upon by the enemies of the service and brought forward as a reason why its well-founded grievances should not be redressed.

Before entering upon the various subjects touched upon in this pamphlet, we would premise that, in considering the different questions, we must in fairness judge by what occurs among the great mass of the practically executive officers, and not compare the prospects of the officers generally with the position of the few, who, by occupying certain fixed appointments for a lengthened period, avoid all foreign service, the risks of a residence in the tropics, regimental expenses, the worry and other disagreements of a military life.

Money Value of the Provision for Life.—The simplest way of ascertaining this, is to divide the total amount of pay received by a military surgeon on the British establishment during his first twenty years' service, taking for granted that he will be promoted surgeon-major after the expiration of fifteen years' army service, and divide by the number of years. This will give you at once the average annual value of a commission spread over twenty years. You will find this to amount to £262 : 1 : 0, from which must be deducted income-tax and other incidental expenses, to be afterwards referred to. We have taken the period of twenty years, because he has then completed the term qualifying for voluntary retirement, and the right to a pension; and, because, after this interval, an officer is pretty well worn out and anxious to revert to private life, in order that he may make a home and friends while there is yet time. The annual value of the allowances exclusive of forage, which is now an intermittent issue, calculated and averaged in the same way at regimental rates, would be £40 : 7 : 0 *per annum*. The aggregate annual value of a military medical appointment spread over twenty years, would be then £302, with the right to retire after the expiration of the same period on £219. If, by any chance, an officer come to be placed upon half-pay before the expiration of this period, he cannot count upon the continuance of the half-pay granted to him, and the Secretary of State for War has the power of conferring diminished rates under certain circumstances and for very limited periods, a not uncommon one being six months. On referring to the army estimates, you will find a number of assistant-surgeons and surgeons enjoying rates varying from 2s. to 8s. The simple question is, will you or will you not, with fair ability and average industry, be better off in civil practice after twenty years? and will you not, in addition, have made a numerous circle of friends and a permanent home, avoiding in the interim the worry of constant movement and the necessity of very frequently having to assert your right to the social status accorded to you officially—a necessity which must be odious to most men.

Let us now see what is the position and prospects of a married regimental medical officer on his average of £302 yearly. If ranking as a field officer, he is allowed two rooms in barracks and a kitchen. An officer, who is supposed to support the character of a gentleman, even if it were decent and physically possible, can scarcely live in two rooms with a wife, family, and female servants; as long as the rooms are available he cannot get lodging allowance, he has, therefore, no choice but to go into lodgings. We have never obtained these under £6 a month, sometimes for not less than £12: let us say £8 as a fair average. A regiment changes quarters once a year as a rule.

Income.	£	s.	d.
Average yearly pay	302	0	0
Expenditure.			
Band and mess, twelve days' pay at 17s. 6d. ...	10	14	6
Four days' extra pay for band (voluntary) ...	3	10	0
Share of mess guests, annual ball, other incidental expenses, £2 a month, *per annum*	24	0	0
Soldier servant and groom, *per annum* ...	12	0	0
Clothes and other expenses connected with servants	10	0	0
Cost of forage over allowance granted by Government	15	0	0
Housemaid and cook	30	0	0
Extra fuel and light	5	0	0
Odds and ends	10	0	0
Annual move, family expenses connected with ...	10	0	0
Furnished lodgings	96	0	0
Total	225	4	6

£302—£225, leaves a married officer the munificent sum of £77 *per annum*, to feed, clothe, and pay all other expenses connected with his family and female servants. We have had frequently less out of our pay. Supposing, for a moment, that an officer could live in barracks with his wife and family, the use of furniture and kitchen utensils would cost at least £3 a month. He would save thus some £66, and have a total annual income of £143. In the foregoing statement, we ask any officer of regimental experience, whether we have exaggerated in the least particular? In practice, you cannot cut things finer than we have done. Many officers with private means pay in house rent alone the whole of their monthly pay. Having thus glanced at the *provision for life*, let us glance next at the other advantages of a military medical career.

Not very arduous Work.—On this subject, the writer of the pamphlet, we presume, speaks for himself and his *confrères*. We have had to perform very arduous duties and very aggravating ones in our day. Under recent regulations, whereby compounders, hospital sergeants, and the second medical officers, have been removed from regiments, the duties, whatever they may have been before, have been trebled at all places where there are no station-hospitals. The substitution of an unskilled and unpaid orderly for a hospital sergeant and compounder will throw upon the military surgeon many duties regarded as *infra dig.* and unprofessional, and tie him more than ever to barracks. Possibly lives may be sacrificed in cases of sudden accident, owing to the absence of any one skilled in the rudiments of surgery and the appropriate antidotes in cases of accidental poisoning. A good hospital sergeant, carefully taught and sharp at figures, was about the most useful non-commissioned officer of a regiment, and the one best worthy, in our opinion, of every legitimate encouragement and advancement in his career.

Leave of Absence.—Medical officers are nominally entitled to two months' leave in the year, provided a substitute is available. It is unfair to say leave is pretty generally obtainable; certainly not now, when the second medical officer is removed from a regiment. Only at the larger stations can it be obtained; elsewhere the surgeon has to pay a civilian out of his slender pay, if he require any relaxation. A medical officer is never granted more than six months' sick leave on full pay. A combatant officer thinks nothing of twelve months, and very frequently obtains eighteen.

Widows' Pensions and Compassionate Allowances.—From £30 to £80 up to rank of lieutenant-colonel; £10 to £12 compassionate allowance. An officer must be one year married, and ten years in the service, before his widow becomes entitled to a pension. Under certain special circumstances, the term may be reduced to seven years.

We have now exhausted the advantages; let us regard the risks of the service.

Excessive Mortality.—Those who have served in the West Indies and other pleasant stations on English pay, can speak to the truth of this affirmation of the assistant-professor.

Lastly, we come to the *Comparison of Warrants.*—Dr. De Chaumont asserts that the present warrants are 43 per cent. better, in point of monetary value, than that of 1804; 18 per cent. better than that of 1840, *supposing the value of money had remained unchanged.* Everything hinges on this last. He admits the importance of this item—the relative value of money; in other words, its present with its former purchasing power. Within the recollection of most people, several articles in use from day to day, and of prime necessity in a household, have increased twofold in value. Some now cost three times as much as they did twenty years since. Of the cost in 1804, we are happy to think we have no personal knowledge; possibly some antiquarian might inform us. Country towns, owing to the development of railways, are no longer cheap quarters; and even abroad the same facts are observed. Hotel-charges have also increased. We would, then, be within the mark, or certainly not exceeding it, when stating that, to bring the monetary provisions of the former warrants alluded to by Dr. De Chaumont, up to the present purchasing power of money, the rates of pay should be doubled.

It is scarcely worth while going so far back as the warrant of 1804; we will refer only to that of 1848, concerning the provisions of which we have some experience. In 1873, the medical rank of assistant-surgeon was abolished, the officers then holding it being promoted to the substantive rank of surgeon, *minus* the pay of the higher dignity. In the same way were surgeons made surgeons-major, promoted also *minus* the pay of the new title—an ingenious device, quickly perceived and exposed. When, in 1858, all staff-surgeons of the first class were made surgeons-major, they were granted the pay, and arranged in accordance with their date of commission as such. The present preamble in the *Army List* is perfectly unintelligible. It should not be forgotten, when speaking of such old warrants as that of 1804, that at that time many medical officers never had to serve in the intermediate ranks at all. Men were appointed surgeons of regiments either at once or after one or two years' service: a notable example, Sir James McGrigor (*vide* Autobiography). The minimum pay of a physician on appointment was £1. Such chances as these have vanished for ever, in accordance with the *march of intellect.* Then a surgical diploma was not a necessary requirement to enable a student to aspire to the warrant of a hospital mate and 7s. 6d. *per diem.* An examination not so good as a hospital sergeant and compounder now pass sufficed. Some were not examined at all. We have all read John Hunter's saying, "It did not require a man to be a surgeon to practise in the Army". If this sum was granted them for such a miserable qualification, how much more should be granted now to those who spend four years in the careful study of their profession, are doubly qualified, pass a competitive examination, go through a course at Netley, and have to pass a third examination before being qualified for the higher rank? Echo answers, "How much?" Then, again, in the older times, frequent wars opened up opportunities for rapid promotion, distinctions and rewards, or valuable introductions into private practice. Then colonial allowances were good, and quick promotion occurred on some stations. All this is now changed, and in many places colonial allowances have either ceased or been much diminished. Fortunes were made in those days; rarely in these.

Warrant of 1804.				Warrant of 1804: rates of pay doubled, to bring up to present purchasing power.			
Assistant-surgeon (Infantry)	£0	7	6	... ...	£0	15	0
Assistant-surgeon (Cavalry)	0	8	6	... ...	0	17	0
Regimental surgeon . .	0	10	4	... ...	1	0	8
After 7 years . . .	0	14	1	... ...	1	8	2
After 20 years . . .	0	18	0	... ...	1	16	0
Surgeon to the Forces .	0	15	0	... ...	1	10	0
Physician to the Forces .	1	0	0	... ...	2	0	0
Deputy surgeon-general .	1	5	0	... ...	2	10	0
After 20 years in the Army	1	10	0	... ...	3	0	0
Inspector . . .	2	0	0	... ...	4	0	0

Judging by this standard, the pay has lessened considerably, instead of increased. The following were the rates of pay given by the Royal Warrant of 1848.

Assist.-surgeon (Infantry)	£0	7	6	Surgeons over 25 years	£1	2	0
Assist.-surgeon (Cavalry)	0	8	6	Surgeon 1st class . .	0	19	0
Surgeon on appointment	0	13	0	,, over 20 years .	1	2	0
,, over 10 years .	0	15	0	,, over 25 years .	1	4	0
,, over 20 years .	0	19	0				

In the present warrant, a surgeon-major of twenty years, equivalent to the old rank of first-class staff-surgeon, only gets £1 : 4; an officer of twenty-five years' service, £1 : 7; so that, in twenty-six years, only 2s. and 3s. have been added to the daily pay of the older officers. A staff-surgeon of the first class then occupied a very different position from a surgeon-major of the present day. He never did regimental duty, or was put under regimental stoppages, so that he was, on the whole, better off than the majority of the present officers of regimental rank. He was a superintending, not an executive, officer.

The executive medical officers of to-day have constantly to battle against a narrow-minded officialism on the one hand and the prejudices of the Horse Guards on the other. Their position is admirably represented in Goldsmith's fable of the "Giant and the Dwarf". Both were victorious in every battle. The former had become rich from the booty he had acquired, but the latter had lost an arm, a leg, and an eye. "Come on", says the Giant, "my little hero! this is glorious sport; let us get one victory more, and then we shall have honour for ever." "No", cries the Dwarf, who was by this time grown wiser, "no, I declare off, I'll fight no more; for I find, in every battle, that you get all the honour and rewards, but all the blows fall to me." The profession have now declared off, and it is to be hoped they will not "declare on" until our fair and just demands are conceded, viz., the restoration of former privileges and allowances; a quicker promotion; and, above all, a better retirement after twenty years, the only true and statesmanlike way to obtain it; a retirement while we are not yet too old to make a home for those who have a hard struggle for existence before them; some increase to our slender pay, and something more practical than fair words for hard service. A minister of the crown, when recently addressing the civil servants of the country at one of their annual meetings, said to them, "I have found a spirit of honour and trustworthiness pervading those who were employed in the permanent civil service of this country which does great credit to themselves, and is of incalculable advantage to the country at large. If that be the characteristics of the civil servants, I venture to say, that the country cannot too highly value their services. I object entirely to those ideas of false economy, which I would rather call parsimony, which have been professed by certain persons at various times in dealing with this question. I believe that no man in ordinary private life, employing a large number of subordinates, would look in the engagement of these subordinates merely to procure them at the cheapest possible rate. Far less ought that to be the case in such a case as that of the civil servants of this great country, where not only are the qualities required which the ordinary merchant would seek in this class, but where special trustworthiness, accurate honour, careful exactness in every possible matter, are also required far more than in any private employment".

This generous language we would commend to those who would drag a time-honoured service in the dust, and not wish it to become one of the most favoured corps in the army. It is not, sir, a question of systems, for systems can be modified or improved according to experience derived from their working; it is a question of existence. We have been associated with the English army from the earliest times; we have accompanied it in victory, in retreat, and through disease and death in every form. Our miserable pay has been hitherto our sole reward. The time has now come when we may protest against being relegated to obscurity when no longer required, and demand, at the same time, a share of the honours, rewards, and recompenses we have helped to gain. I am, etc.,

LONGA EST INJURIA LONGÆ AMBAGES.

DR. DE CHAUMONT'S PAMPHLET.

SIR,—A pamphlet is being circulated among the friends and admirers of the above named officer, a reprint of an article from the *Edinburgh Medical Journal* of the present month, the upshot of which is, that the medical officers of the present day are told to consider themselves 43 per cent. better off than their brethren who were unfortunate enough to live in the year 1804. Coming, as this pamphlet does, after the recent "knock-me-down" letter elsewhere, which, among other interesting tales, told the medical officers of the army that they had already obtained the market price of their labour, and should wish for no more, these medical officers are naturally surprised that any among them at the present crisis, when it is well known that the Secretary at War is willing to consider the position of the service in a fair and impartial manner, should come forward and make an *ex parte* statement which may be of infinite injury to them and their future prospects. Such a statement, coming as it does from an officer who for nearly fourteen years has enjoyed one of the most comfortable billets in the service, and is now drawing *one hundred a year extra pay* for the performance of his onerous duties, and who has been recently threatened with that tour of foreign service which appears so horrible to some men, that they would descend to any amount of subserviency rather than undergo the ordeal, the value of the statement may be surmised.

Dr. De Chaumont, while laying such great stress upon this wonderful 43 per cent., dismisses in a few lines the question of the relative value of money between the two periods, and the average professional earnings in civil life. Of the last we have some knowledge, and think you will bear us out in saying that a physician who is a graduate in medicine and surgery, and able to pass a good professional examination, can look forward to something better, after twenty years' work, than the miserable pittance of 12s. *per diem* to retire upon. At all events, he will have made by that time a home and many friends, while his army medical *confrère* is as yet a stranger to all. Of the relative value of money, there is little to dispute about. Twenty years ago, meat, eggs, milk, lodgings, fuel, light, servants, and those other family necessaries, were at least half what they are now; in many places, a third under the present cost. This most people who have to pay for them will acknowledge. Of this fact, Dr. De Chaumont, who is said to be a family man, is no doubt aware. Previous to 1804, a hospital mate, specially employed for service in the field or abroad, was allowed 7s. 6d. a day for pay, and 2s. 6d. allowances; a surgeon, 10s. 6d. a day, and 3s. 6d. allowances; an apothecary, the same rate of pay. A private soldier obtained 6d. *per diem*. Admitting that these emoluments at the least should be doubled to yield their present equivalents, we find that the present surgeon should get £1 on appointment; the surgeon-major, £1 : 7; the soldier, 1s., his present pay, which, every one knows, is about half the wages readily obtainable by an unskilled labourer in civil life, and is in practice found to be so little, that scarcely any recruits better than boys can be induced to enlist for it.

We are, etc.,

AMICUS CERTUS IN RE INCERTA CERNITUR.

THE NAVAL MEDICAL SERVICE.

SIR,—I beg to call your attention to the following case of injustice.

At Trincomalee, there is a naval sick-quarters, capable of accommodating about twenty men, six officers; but there is no medical officer appointed to do duty there by the Admiralty. The system adopted is, to send a medical officer from the senior ship present in the harbour to do the duty. If, as is almost constantly the case, some patients be left behind after the departure of the ship or ships, a medical officer is left in charge; but he does not receive the extra pay to which he is entitled. The present officer has been doing duty there for a period of five months, and it is impossible to say how much longer he may be there. His predecessor was in charge for nine months, and for most of the time there was no ship present in the harbour. Neither of these gentlemen has received the extra pay to which he is honestly entitled.

In the Admiralty Instructions, it is stated that a surgeon doing duty at a hospital at home shall receive £39 *per annum*, and abroad £108; but, in the case in question, the officer in charge of the sick-quarters is allowed merely the value of his rations—a sum of eighteen pence a day. Why does the officer not receive his foreign hospital allowance of six shillings a day? The answer is simply this: the Admiralty call the establishment *sick-quarters*, and, thereby avoiding the word hospital, escape from the obligation of paying the hospital allowance. This is one of the most expensive places in the East. I have been informed that on two or three occasions this case has been "fought", but without success; the reply given being, that the establishment is not a "hospital", but simply a "sick-quarters". Can you conceive a more preposterous distinction?

At Trincomalee, there is a small naval dockyard; and, singular to state, the English families there receive their medical attendance from an army surgeon, who is allowed by the Admiralty seven shillings and sixpence a day for that purpose.

I have been in the service some years, and my advice is, to all young and recently qualified medical men, Avoid the Navy. I do not—and I say this without fear of contradiction—know a single medical officer in the Navy who likes it, and who has not bitterly rued the day he joined it. I am etc., ANOTHER DISCONTENTED SURGEON.

OBITUARY.

SURGEON-GENERAL JOHN BENT,

PRINCIPAL MEDICAL OFFICER AT ALDERSHOT.

WE regret to announce the death, on November 23rd, of Surgeon-General Bent, while engaged in the active duties of his profession as the Principal Medical Officer at Aldershot Camp. It is only a few months ago that he was appointed to this post, on its being vacated by Surgeon-General C. Gordon, who was ordered to India. Surgeon-General Bent had then just returned from foreign service at Gibraltar, where he had been administering the affairs of his department for five years. For a few months before quitting Gibraltar, Mr. Bent's sight, which was always myopic, had become very materially impaired; and, though on his return to England he was apparently in sound health otherwise, yet intense pain in the head, and other symptoms which came on shortly before his death, left little room for doubt that the deterioration of his vision had been partly due to cerebral disorder. This, whatever its nature, probably had its origin in a severe accident which occurred to Mr. Bent in the autumn of 1872. He was riding at full speed, when his horse, putting one of his feet in a hole, suddenly fell and threw him forward. Mr. Bent's head and shoulder first struck the ground. The accident was followed by grave symptoms of concussion, which lasted for several hours; and his right clavicle was fractured. After a short intermission, Mr. Bent returned to his duties, and he was afterwards under the impression that the effects of the injury had passed completely away; but some of his friends considered that he never fully recovered from its effects, though there was nothing sufficiently amiss to attract the notice of an ordinary observer. We understand that no *post mortem* examination was made.

Surgeon-General Bent was an accomplished officer, and was highly esteemed by all with whom he had been associated in the various branches of the public service. He was of a particularly amiable and conciliatory disposition, and was consequently a favourite, not only among his colleagues who had risen with him in the Medical Department, but also among those who served under his direction after he had attained administrative rank. He entered the Army as an Assistant-Surgeon in September 1838, and passed through all the successive grades, until he was promoted to the rank of Surgeon-General on the occasion of the death of Surgeon-General Dr. Beatson in India. For service during the Crimean war, Mr. Bent was decorated with the fifth class of the Medjidie and the Turkish medal, in addition to the Crimean medal with clasp for Sebastopol. He was 57 years of age at the time of his decease.

Surgeon-General Bent, being on full-pay, and engaged in the active duties of his appointment at the time of his last fatal illness, was buried with the military honours due to his relative rank; viz., that of a Brigadier-General. Sir Hope Grant, G.C.B., Commanding at Aldershot, acted as one of the pall-bearers, with several other general officers and heads of Departments. The corpse was drawn on a gun-carriage by six horses, the horse of the deceased, covered with a black pall and carrying the boots of his late master reversed, following; and the funeral was attended by the whole of the staff and nearly all the officers off duty in the Camp. A battery of the Royal Horse Artillery placed upon Gun Hill fired nine minute-guns as the procession moved off from the Principal Medical Officer's quarters. The procession included two squadrons of cavalry, nine guns of the Royal Horse Artillery, the 38th Regiment, and detachments of other troops. The burial service was partly performed at the Church of All Saints in the Camp, and partly at the cemetery. At the conclusion, a salute of nine guns was fired by the Royal Horse Artillery. The ceremony was a very impressive one, and was witnessed by a large concourse of spectators. It may be remembered that it is only since the last warrant of 1858 that army medical officers dying while on full-pay have been buried with military honours.

JOHN NICHOLLS STEVENS, M.R.C.S., L.S.A., PLYMOUTH.

MR. STEVENS was born near the Lizard, in Cornwall. His father was rector of the parishes of Landewednach and Ruan Major. He studied medicine at Guy's Hospital and subsequently in Dublin. Very soon after he was qualified, he took a practice at St. Kevern, in Cornwall, where he remained fourteen years. He married Miss Eliza Creagh, fifth daughter of the Rev. J. B. Creagh, D.D., Rector of Kingcurran, near Kinsale, and of Carrig, near Doneraile, County Cork, and by her had a family of sixteen children, nine of whom now survive. When his children grew up, Mr. Stevens deemed it expedient to move to some locality where better means of education were available. Accordingly, he entered into partnership with the late Dr. Richard Freeman of Plymouth, and, in conjunction with that gentleman, carried on an extensive practice for twelve years. On Dr. Freeman's death, the whole practice fell into the hands of Mr. Stevens, who discharged the arduous duties which it involved almost up to the time of his death. For many years, he held important public appointments at Plymouth. He was Surgeon to the Police Force, the Prison, and the Workhouse, and Sanitary Inspector of the Port of Plymouth. Sanitary questions were always matters of special interest to Mr. Stevens, and he was at all times eager to lend a hand in improving the condition of the town in which he lived. In 1849, when Plymouth was visited by cholera, Mr. Stevens was indefatigable in his efforts to render such assistance as medical science allowed to those who were stricken. He was equally untiring in his efforts when a severe epidemic of small-pox raged in the latter part of the year 1871. In the intervals of active life, he found time to send occasional papers to the medical journals. Few men have worked harder and more unremittingly than Mr. Stevens during his twenty-seven years' residence at Plymouth; but, like too many of his professional brethren, he failed to meet with a commensurate pecuniary reward, and he has left his family but slenderly provided for. On October 24th last, he was seized with violent shivering fits, and indications of some disease in the region of the sigmoid flexure of the colon, the nature of which was not apparent, and, in spite of the anxious care of his friends and attendants, no alleviation of his symptoms could be procured. On November 5th, he quietly sank in the sixty-fourth year of his age. An examination of the body after death showed very extensive deposit of melanotic cancer about the sigmoid flexure; the canal of the gut was very much contracted in places, and in one spot the coats of the bowel had broken down and peritonitis had been set up. It may with strict truth be said that Mr. Stevens was universally respected and beloved. He was thoroughly honest, manly, and straightforward. His professional brethren loved and admired him for his candid and independent spirit, that never permitted him to do anything that was not honourable and right. To his patients and friends, he was endeared by his generous and warm-hearted character. In his family, he was the loving and anxious father and the kind and tender husband.

MEDICAL NEWS.

Royal College of Surgeons of England.—The half-yearly examination in Anatomy and Physiology of candidates for the diploma of Fellow of this institution, took place on November 24th, when the following members of the College passed; and, when eligible, will be admitted to the final examination.

John Morgan, diploma of membership dated November 11th, 1860, Bristol and Guy's Hospitals: Joseph William Anningson, July 21st, 1860, Manchester School; Henry Ambrose Lediard, July 27th, 1870, Edinburgh School; Rutherford John Pye-Smith, July 26th, 1871, Guy's Hospital; William Harrison Cripps, July 23rd, 1872, St. Bartholomew's Hospital; John Hammond Morgan, July 23rd, 1872, St. George's Hospital; Charles Firth, November 18th, 1873, St. Bartholomew's Hospital.

The following gentlemen, not members, also passed.

Edward Amplett, Guy's Hospital; Robert Edmond Carrington, Guy's Hospital; Hugh Gordon Cumming, St. Bartholomew's Hospital; Henry Blake, St. George's Hospital; George Henry Makins, St. Thomas's Hospital.

Twelve candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Anatomical and Physiological studies for six months.

The following passed on November 25th.

Ernest Tredennick, James A. M. Moullin, and Henry P. Potter, St. Thomas's Hospital: William G. Archer, St. Bartholomew's Hospital; Robert H. Clarke, Cambridge and St. George's Hospitals; Francis J. Davies, University College; and Thomas C. Charles, Belfast Hospital.

Of the thirty-nine candidates examined, no less than twenty were referred to their anatomical and physiological studies for six months.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 26th, 1874.

Owen, William, Victoria, Ebbw Vale, Monmouthshire
Young, Patrick Percy, Winchester Street, Pimlico

The following gentlemen also on the same day passed their primary professional examination.

Norris, Richard Hill, Queen's College, Birmingham
Taylor, Henry Cumberland, Guy's Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERYSTWITH INFIRMARY—Surgeon.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon: £80 per annum, board and residence. Applications on or before December 14th.

ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.

AXBRIDGE UNION—Medical Officer for the Second District. Salary, £30 per annum.

BASFORD UNION—Medical Officer for No. 1 District. Salary, £40 per annum.

BRIDGEWATER INFIRMARY—Dispenser. Salary, £40 per annum, with board, lodging, and washing. Applications to be sent to Mr. E. Lilley, the Honorary Secretary, Bridgewater.

BRIDGNORTH INFIRMARY and DISPENSARY—House-Surgeon. Salary, £100 per annum, with coal, gas, furnished apartments, and attendance. Applications not later than 8th instant.

CARLISLE FEVER HOSPITAL—Resident Medical Officer. Applications to the Clerk of the Urban Sanitary Authority, Carlisle.

CASTLEBAR DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.

DAVENTRY UNION—Medical Officer and Public Vaccinator for No. 2 District. Salary, £25 per annum, and fees. Applications to be sent on or before the 8th instant.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

GAINSBOROUGH UNION—Medical Officer and Public Vaccinator to the Willingham District. Salary, £70 per annum, and fees. Applications on or before 7th instant.

GATESHEAD DISPENSARY—Assistant-Surgeon. Salary, £120 per annum. Applications on or before the 5th instant.

GRAVESEND and MILTON UNION—Medical Officer for the District of Milton, and that portion of the Workhouse belonging to the parish of Milton. Salary, £70 per annum, and fees. Applications, on or before the 16th instant, to W. J. King, King Street, Gravesend.

GREENOCK INFIRMARY—Dispenser. One who can assist in dressing preferred. Salary, £25 per annum, with board. Applications to the Secretary on or before the 7th instant.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.

LONDON FEVER HOSPITAL, Liverpool Road—Medical Registrar: £50 per annum. Applications to the Resident Medical Officer, not later than the 7th instant.

MALTON DISPENSARY—Medical Officer: £100 per annum. Applications to Mr. H. Pickering, Honorary Secretary.

MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.

MORVEN (Parish of), Argyleshire—Medical Officer. Salary, £100 per annum. Testimonials to be sent in on or before the 30th December, to H. A. Fraser, Morven, Fort William, N.B.

NOTTINGHAM GENERAL HOSPITAL—Physician. Applications to be made not later than the 16th instant.

OAKHAM RURAL SANITARY DISTRICT—Medical Officer of Health; £60 per annum.

PLYMOUTH UNION—Medical Officer for No. 3 District.

RATHMINES DISPENSARY—Apothecary: £50 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road—Senior House-Surgeon. Salary, £104 per annum, with board and residence in the Hospital. Testimonials to be sent in to the Secretary on or before December 9th.

RYDE DISPENSARY—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

ST. PANCRAS UNION—Non-resident Dispenser. Salary, £80 per annum, with dinner daily. Candidates must be L.S.A., or duly registered under the Pharmacy Act (1868), or some other authority of law in that behalf. Applications on or before December 8th.

SALISBURY INFIRMARY—Two Physicians. Candidates must be Graduates in Medicine, or a Fellow, Member, or Licentiate of one of the Colleges of Physicians in the United Kingdom. Applications must be sent to the Secretary on or before December 10th.

SEVENOAKS UNION—Medical Officer and Public Vaccinator for No. 2 District. Salary, £70 per annum.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—Surgeon.

STRATHKINNESS, Village and District of—Medical Officer. Salary, £10 from Parochial Board, with £110 from a workmen's club, exclusive of midwifery fees. Apply to Mr. A. Cowper, Kincaple, Cupar Fife.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

WESTERN GENERAL DISPENSARY, Marylebone Road—Physician in Ordinary. Honorary Physicians must be Fellows or Members of the Royal College of Physicians of London, and duly registered. Applications must be made to the Secretary on or before December 14th.

WESTMINSTER—Medical Officer of Health and Analyst. Salary, £150 as Medical Officer of Health, and £50 as Analyst. Applications, on or before December 9th, to George Buzzard, Vestry Clerk.

WEST RIDING ASYLUM, Wakefield—Assistant Medical Officer and Pathologist.

WOOLWICH UNION, Kent—Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £60 per annum, with board, lodging, and washing. An additional salary of £20 per annum will be given for dispensing for the poor of the Plumstead District.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Clarkson, J. W., M.R.C.S., L.R.C.P., appointed House-Surgeon to St. Thomas's Hospital.

Rossiter, George F., M.R.C.S., L.S.A., appointed House-Surgeon to St. Thomas's Hospital.

Thomas, William, F.R.C.S., appointed Honorary Acting Surgeon to the Birmingham and Midland Free Hospital for Sick Children.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

Fletcher—At Earl Soham, the wife of *George Fletcher, M.B., of a daughter, on November 26th.

DEATH.

*Sutherland, William, M.D., M.R.C.S., on November 25th, at his residence in George Street, Croydon, in his 63rd year.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. H. Royes Bell, "A Case of Cyst of the Lower Jaw"; Dr. Routh, "An Epidemic of Infectious Sore-throat which occurred in a Public Institution, and the probable causes of its production".—Odontological Society, 8 P.M. Mr. Charles Tomes, "Studies on the Attachment of Teeth".

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M.: Ballot. 8.30 P.M.: Dr. George Johnson, "On the Laryngeal Symptoms which result from the Pressure of Aneurismal and other Tumours upon the Vagus and Recurrent Nerves".

WEDNESDAY.—Epidemiological Society, 8 P.M. Mr. J. N. Radcliffe, "On Plague"; Dr. Dickson, "Reappearance of Plague"; Dr. Marroin, "Plague at Bengazi."; Dr. Schlimmel, "Plague in Persia".—Royal Microscopical Society, 8 P.M. Dr. C. T. Hudson, M.A., "On some Male Rotifers".

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Rouse, "A Case of Aneurism"; Mr. Venning, "A Case of Syphilis, with Secondary Symptoms, appearing after twenty-three years".

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

S. W. F. would be glad of information on the subject of Artificial Incubation, and also as to where the "Incubator" can be obtained.

The name of Dr. George Johnson, F.R.S., appears as Consulting Physician in a list issued by the new Civil Service Co-operation Society, without any authority from him. He has required and received an apology; but some copies of the list have already passed into circulation.

Erratum.—The last sentence of the last paragraph but one of our article in last week's impression on the Contagious Diseases Acts should run thus: "The diminution from 146 to 136 is trifling; that from 100 to 51 is very great."

Messrs. Fradelle and Marshall, 230, Regent Street, have forwarded us characteristic portraits of the late Dr. Edward Smith and the late Dr. Lankester, which form part of their fine collection of medical portraits.

Mr. D. Griffith (Grosnant, Rhyl). It would not be right for a medical man who has been called to a consultation to continue his visits to the patient, or to ask questions of the kind mentioned. If the ordinary medical attendant have forgotten to let the one called in know how the patient is, he should be reminded of it by a note or interview. The omission would not justify visits to the patient.

Sheffield Public Hospital and Dispensary.

Dr. T. W. Hime of Sheffield writes to remove any erroneous impression which might be formed from a recent paragraph in which we noticed the changes which had been made in the Sheffield Public Dispensary. Dr. Hime has not absolutely ceased to be connected with the dispensary, as the Committee transferred to their colleague the whole of the practice which belonged to that institution, and no one would think of removing his name for three years which would have to elapse before the term for which he was elected would expire. The arrangements with Dr. Hime evince the greatest amount of courtesy and good feeling on both sides.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

Sir,—You will much oblige by giving your opinion in the following matter. I was called by the officer in charge of the police-station to examine at the station the dead body of an infant that had been found in a ditch. I made an examination, and came to the conclusion that the child had been non-viable, being certainly not more than six months developed. I gave a certificate to that effect. The coroner consequently thought it unnecessary to hold an inquest, and the matter was dropped. Now, who is to pay me for the examination? The police, the parish, and the coroner refuse to do so. You will much oblige by telling me to whom I should apply, and the fee I can demand. I am, etc., "Stillborn."

*** The person who summoned the medical practitioner, and who directed the examination to be made, is liable to pay, and should be proceeded against in the County Court.

"Cancer and Dropsy."

Captain J. Pictet's letter gives no reason, beyond his own belief, why any one should trouble themselves in the matter. If the practitioner of whom he speaks has, or thinks he has, any improved means of treatment, all the medical societies and journals are open to him, and it is his duty to submit a statement of his mode of treatment.

The Development of Contagious Diseases.

Sir,—While the discussion on typhoid fever is going on in the *Times*, will you permit me to make a few simple remarks in your Journal? Without going into the scientific portion of the question, as to whether typhoid fever be contagious or not, and how (though all fevers capable of taking on an epidemic form probably are contagious). I wish to note the analogy between the human body and the soil of the earth, as far as the development of contagious diseases and plants are concerned. For instance, if the human body be exposed to contagion, it will not develope the disease unless the secretions and tissues are in a fit and proper state to propagate it. To induce this unhealthy condition, it is probably necessary (in fevers) to place the system under the influence of either impure water, impure atmosphere, unwholesome food, or bad drainage; and when the constituents favourable to the development of contagion are thus produced, the system is ripe to mature the germs of the disease. So with the soil of the earth: if we plant a tree in a dry soil which will only grow in a sandy one, it will not thrive, because the soil does not contain those elements necessary to develope the plant.

Again, the reason why people who have had a contagious disease, do not usually have it a second time, may be because the first attack has exhausted the fertilising elements in the system necessary for its development; or, when a second attack does occur, it is probably either owing to the system being again replenished and brought into the necessary condition by exposure to the unhealthy influences previously mentioned, or that the first attack did not sufficiently exhaust the body of the developing principles. So also the soil is worn out by a succession of one crop, and must be refertilised by a suitable manure. If the human body, in disease, can produce vegetable growth, vegetable decay may produce animal germs capable of inducing disease. Improved sanitary conditions, though not preventing contagion, arrest its development by keeping the human body free from those constituents necessary to develope and propagate it. I am, etc.,

Tudor House, Anerley, Nov. 17th, 1874. W. H. Tayler, M.D.

The Vaccine-Insitor and the Pen-Vaccinator.

Sir,—I heard of the "vaccine-insitor" for the first time from the letter of Dr. Nicholas, which appeared in the Journal of the 14th instant. It seems that Dr. Nicholas and I have each of us taken the idea of a vaccinator from the mathematical drawing-pen. The vaccine-insitor (the description and illustration of which I have seen to-day in the volume of the British Medical Journal for 1856) is the ordinary drawing instrument, without any alteration whatever, excepting change of name. The "pen-vaccinator", on the contrary, is a vaccinating instrument and case for tubes (or points) combined: the blades are of hard incorrodible metal, which, when not in use, are reversed and shut into the case. I have used it in a considerable number of vaccinations, and the convenience of the instrument, carrying as it does its reserve supply of lymph, and holding a charge, sufficient for several operations, moist between its blades, appears to me to constitute desirable qualifications entirely peculiar to itself. I am, etc., R. Harvey Hilliard.

Belgrave Terrace, Upper Holloway, Nov. 17th, 1874.

Excessive Masturbation by a Child.

Sir,—Will you allow me to ask, through the medium of the Journal, any of my brother members who may have met with a case similar to the one now mentioned, to be kind enough to give me his advice and experience. I am much distressed about it, as the child is left under my charge, his friends being abroad.

W. B., only seven years of age, is addicted to excessive masturbation, and has been so about twelve months. The discharge of seminal or prostatic fluid is now beginning to cause him weakness, which makes him fall down three or four times a day, and he is fast losing flesh. He is a healthy boy otherwise, and by no means precocious. Having been in practice over fifty years, I never knew or heard of a similar case in so young a child.—I enclose my card. I am, etc.,

Dovercourt, Essex, Nov. 23rd, 1874. An Old Member.

Martin's Solution of Tannin.

Sir,—Will you kindly allow me space to ask Mr. Miall if he has ever used Martin's Solution of Tannin as an injection in obstinate gleet; and what is the strongest solution he has ever known used as an urethral injection?

I am, etc., Member of the British Medical Association.

London, November 10th, 1874.

Water-Supply.

The town of Galashiels is in a bad way as regards its water. The supply is taken from public and private wells: some are actually, and all are liable to contamination from sewage- and surface-water to such an extent as to render the water unfit for domestic use, and liable to produce and promote epidemic diseases. Dr. Littlejohn reports that disease of a febrile type, and occasionally taking the appearance of diphtheria, was scarcely ever absent; and he attributes this entirely to the water-supply, which is not only inadequate and unfit for domestic purposes, but there is absolutely no water for sanitary purposes. The drainage is also reported to be in an unsatisfactory condition, owing to there being no means for flushing sewers.

These facts were brought before the notice of the Local Authority so long ago as 1871; and in 1874 the same state of things exists.

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

Prostatic Casts in Urine.

Sir,—I wish to state, with reference to a letter from me in the Journal for July 25th, under the above heading, that I am informed that the casts in question are mucoid, and are probably from the prostate. As it appears that there is not much known about them, I may add that some of them are very similar in appearance to the renal casts depicted at page 81 of the Journal for January 1873, fig. 6, and page 109, February 1873, fig. 13: others have a fungoid appearance. If these be from the prostate, and be abnormal, would not their appearance be an early indication of disease? I am, etc.,

November 1874. Walter Lattey, L.R.C.P.Lond.

Medical Degrees and Titles.

Sir,—In reply to "Ph.D., L.K.Q.C.P.I.", I beg to say that I did not deny the right Licentiates of his College may have to the title of Dr., but stated that the College of Physicians of Ireland either had, or professed to have, the right to confer it upon them. If what he states be correct, I should think there could be no doubt about the matter.

In answer to "L.R.C.P., another Country Practitioner", I greatly regret that I have not the letter to which I referred. I received it between five and six years ago from the Royal College of Physicians of Edinburgh, and it contained almost the exact words which I used in my letter, published October 24th. I do not doubt that many other medical men have received similar information.

I thank Mr. Bately, L.R.C.P.Lond., for seconding my proposition. I would now propose that the L.R.C.P.s living in London should hold a meeting and appoint a committee to draw up the desired petition, forwarding it to those in the country for approval and signature. Should none of the British Universities admit us, I would suggest that (as there are a great number of medical men in England desiring the degree of M.D., and unable to obtain it here), we apply to some good foreign University to send over examiners to test our knowledge, and to grant us the degree after thorough examination; also, that the Medical Council be asked to appoint visitors to the examination, and to allow the degree to be registered. Then our brother practitioners could not accuse us of possessing worthless foreign diplomas, which otherwise, with their usual good feeling, they would be very likely to do. I am, etc.,

November 1874. A Country Practitioner.

⁂ The Medical Council have no power whatever to order the degrees obtained from a foreign University to be registered. The Medical Act, as at present passed, prevents this. In the late Amendment Bill of the Government, there was a suitable provision for this purpose.

Sir,—When are we to have an end of this unseemly conflict? For wellnigh fifteen years the strife has raged, and the end seems no nearer than ever. No sooner has one warrior laid down his arms than another girds himself for the battle. There can be little doubt that the gentlemen who sought the license of the College of Physicians of Edinburgh during the year of grace fourteen or fifteen years ago, and especially those of them who already possessed the double qualification, as it was called, expected to be able to call themselves Doctors. If, then, these Licentiates have no legal claim to be called Doctors, they have either deceived themselves or have been deceived. In the latter case, they are deserving of some sympathy, for the title, once assumed, could not be easily dropped; and, moreover, it was well known that the Licentiates and Extra-Licentiates of the London College of Physicians fifteen and twenty years ago invariably prefixed the Dr. to their names, and were so styled, in courtesy, by patients and friends. It would appear to be only just that if the Edinburgh College of Physicians gave countenance to a delusion, it is their duty to help in setting matters right. I would therefore cordially support the suggestion of your correspondent, that the Licentiates of Colleges of Physicians throughout the country should sign a petition to the University of Edinburgh, and that the College of Physicians of Edinburgh should be asked to support it, seeking admission *ad eundem* to the degree of M.D. at that University. A year of grace, dispensing with the *annus medicus*, and perhaps some slight modification in the examination, would be all the concession asked, and we should probably hear no more of the vexed question of Dr. or no Dr.

November 1874. I am, etc., Pax.

Sir,—Some of your correspondents appear to think that, by not admitting candidates, without residence, to medical degrees, the Universities of the United Kingdom are guilty of an injustice. As all the medical examining bodies require residence somewhere, and a certain fixed course of study, your correspondents should, in order to be consistent, demand that the Royal College of Surgeons, for instance, should give its Membership or Fellowship to all found, on examination, possessed of the requisite knowledge, where or however obtained. Here, however, no injustice is perceived, but all candidates fit their course of study uncomplainingly, so as to meet the conditions required. Much more than the College, which, in its relations to students, is simply an examining body, have the Universities—being, with the exception of that of London, well endowed teaching bodies—the right to decide at what schools and for what time the candidate shall be taught. In the case of the scholastic profession, no injustice is complained of at its members being excluded from the degrees of the older Universities, unless they fulfil certain conditions of residence; and yet there are many well read and good teachers who, for lack of the University degree, to which they are more than equal, stand in their profession, both socially and pecuniarily, in a much lower position than they would had they the good fortune to have been sent, when young, by their friends to the University. Moreover, if the medical degrees, for which your correspondents pine, were to be thrown open to all able to pass the examinations, they would lose the most part of their value; for the world estimates a degree not only by the social and educational advantages which may be supposed to attach to the residence implied by it, but also by the amount of money and time consumed in its pursuit. I am, etc.,

November 1870, Wm. A. Brailey, M.D.Camb.

Sir,—I have been much interested in the correspondence which has recently appeared in the Journal with reference to the M.D. degree, agreeing as I do with those who consider that the honour should be attainable, without residence, by those members of the profession whose professional and social position entitle them to it. For my own part, I think it unreasonable that, although a magistrate, a member of the Council of the British Medical Association, and a medical officer of health of a rather important district, I am not admissible to examination for a degree which, for reasons apart from my private practice, it might be advantageous to me to possess. I am, etc., J. P.

Sir,—It is evident by the numerous letters on Medical Titles in your valuable journal, that the subject is an important one. "Cosmopolitan" has, in your impressions of the 24th ult. and the 21st inst., placed the matter in its true light, and I fully endorse all his remarks therein. It is a shame and a disgrace that fully qualified men, after five or ten years' practice, should be denied the opportunity of presenting themselves for examination for the M.D. degree at the English Universities. I am in the same predicament as hundreds of my professional brethren who are desirous of obtaining a degree in medicine, and who, after years of hard work and practical experience, and holding the L.R.C.P.Lond., M.R.C.S.Eng., and L.S.A., are still debarred from obtaining the M.D. degree until the last years of professional life have passed away—until, in fact, the mature age of forty-five or fifty is attained. We ought not to let the matter rest, but protest with all the power we have until the residence clause is removed. I am, etc.,

November 24th, 1874. M.B., M.A.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Western Daily Press; The Manchester Guardian; The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times;

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Braxton Hicks, London; Dr. J. Matthews Duncan, Edinburgh; Dr. J. Hughes Bennett, Nice; Mr. Sercombe, London; Dr. Allen Thomson, Glasgow; Dr. J. Coats, Glasgow; Dr. W. Dickson, London; Dr. Tilbury Fox, London; Mr. T. Holmes, London; Dr. E. L. Fox, Clifton; Dr. Sturges, London; Dr. Greenhalgh, London; Dr. Ringland, Dublin; Surgeon-Major Portet, Netley; Dr. Jones, Cork; Dr. Munro, Cupar-Fife; Mr. T. Vincent Jackson, Wolverhampton; Dr. Challacombe, Bristol; Mr. Sidney Rich, London; Dr. J. J. Charles, Belfast; Dr. F. J. Brown, Rochester; Dr. Monckton, Maidstone; Dr. Harvey, Aberdeen; Dr. A. R. Graham, Weybridge; Mr. A. B. R. Myers, London; Mrs. Dalrymple, Norwich; Mr. J. Baker, London; L.R.C.P.Ed.; Dr. Lavies, London; Dr. Klein, London; Mr. Lattey, Southam; Dr. Copeman, Norwich; Dr. J. C. Reid, Newbiggin-by-Sea; Dr. G. F. Bodington, Kingswinford; Mr. S. W. Moore, London; Mr. Harris, Worthing; Dr. Jukes Styrap, Shrewsbury; Mr. J. Hutchinson, London; Mr. Heber Ellis, Poole; J. P.; Dr. Drummond, Royton; Dr. Wardell, Tunbridge Wells; Dr. Edis, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Mr. J. Burdett Wilby, Glasgow; Dr. Winter Fisher, Leicester; Messrs. Fleet and Co., Liverpool; Mr. Ernest Tyler Smith, Salop, Mr. H. Burdett, Greenwich; Mr. W. W. Reeves, London; Our Paris Correspondent; Our Dublin Correspondent; Dr. George Johnson, London; An Associate; Dr. Michael Harris, Liverpool; Mr. Wilson Hope, Petworth; Dr. Hime, Sheffield; Dr. Finlayson, Glasgow; Mr. Butler, Glasgow; Dr. G. de Gorrequer Griffith, London; Dr. Balthazar W. Foster, Birmingham; Dr. Craig, Edinburgh; Dr. Desmond, Liverpool; Mr. Steele, Clifton; Mr. Prince, Tunbridge Wells; Mr. T. Annandale, Edinburgh; Dr. Bradbury, Cambridge; Dr. Sansom, London; Dr. Hawksley, London; Dr. Sieveking, London; Mr. De Méric, London; Dr. Lauder Brunton, London; Mr. F. Jordan, Birmingham; Dr. Parkes, Bitterne; Mr. Callender, London; Dr. Tindal Robertson, Nottingham; Dr. Ransome, Manchester; Dr. Russell, Birmingham; Mr. H. Morris, London; Dr. Farquharson, London; Mr. Allingham, London; Mr. J. Rouse, London; Dr. Hughlings Jackson, London; Dr. H. Charlton Bastian, London; Dr. A. Robertson, Glasgow; Dr. Cleland, Galway; Dr. J. C. Browne, Wakefield; Mr. Holthouse, London; Dr. Robert King, London; Mr. Joliffe Tufnell, Dublin; Dr. Ferrier, London; Dr. Rasch, London; Mr. M. H. Stapleton, Dublin; Dr. de Chaumont, Woolston; Mr. N. C. Dolman, Clifton; Dr. J. B. Potter, London; Dr. Ramskill, London; Dr. John Williams, London; Dr. Ross, Manchester; Mr. Fairlie Clarke, London; Mr. E. J. Adams, London; Dr. Frodsham, Streatham; Dr. Wynn Westcott, Martock; Dr. Moon, Brighton; Mr. J. H. Jackman, Swymbridge; A Liverpool Associate; Mr. H. Sewill, London; Our Edinburgh Correspondent; Mr. T. H. Bartleet, Birmingham; Mr. Sanger, Seaford; Mr. MacCormac, Belfast; Dr. Ross, Manchester; Dr. Morgan, Manchester; Mr. J. R. Lane, London; Mr. Sydney Jones, London; Mr. B. A. Rugg, Earlswood; Dr. Trollope, St. Leonard's-on-Sea; Dr. Sayre, Philadelphia; Dr. Taafe, Brighton; Dr. W. Squire, London; Dr. Heaton, Leeds; Dr. Gillespie, Edinburgh; Mr. W. B. Dalby, London; Dr. J. E. Pollock, London; Dr. J. B. Yeo, London; Dr. Douglas Powell, London; Dr. Philipson, Newcastle-on-Tyne; Mr. Chiene, Edinburgh; Dr. Sibbald, Edinburgh; Dr. Smith-Shand, Aberdeen; Mr. Eastes, London; Mr. Macready, London; Dr. Wilks, London; etc.

BOOKS, etc., RECEIVED.

Outlines of the Science and Practice of Medicine. By Wm. Aitken, M.D., F.R.S. London: Chas. Griffin and Sons. 1874.

Address in Medicine delivered at the Meeting of the British Medical Association in Norwich, 1874. By J. Russell Reynolds, M.D., F.R.S. London: J. and A. Churchill. 1874.

Nature Series: Polarisation of Light. By William Spottiswoode, M.A., LL.D., F.R.S., etc. London: Macmillan and Co. 1874.

The Elements of Embryology. By M. Foster, M.A., M.D., F.R.S., and Francis M. Balfour, B.A. London: Macmillan and Co. 1874.

The Elements of the Psychology of Cognition. By Robert Jardine, B.D., D.S. London: Macmillan and Co. 1874.

AN ADDRESS

ON THE

MODERN TREATMENT OF SYPHILIS.

Delivered before the Harveian Society of London.

By JAMES R. LANE, F.R.C.S.,
Surgeon to St. Mary's and the Lock Hospitals; President of the Society.

My excuse for bringing forward a paper on such a familiar and everyday subject as the treatment of syphilis is, that after twenty-three years' experience at the Lock Hospital, I have necessarily been led to some definite conclusions—to form, in fact, a sort of creed of my own on the subject, which it may be worth while briefly to put forward, even although it may comprise little that is novel, and may be in most essential particulars confirmatory of the views entertained by the majority of my contemporaries.

Fortunately, in the matter of treatment there is not quite the same divergence of opinion which prevails with respect to the pathology of this obscure and puzzling disease. To such pathological intricacies I am anxious at present to avoid all reference, except so far as the consideration of the practical side of the question may render absolutely necessary.

The consideration of the treatment of syphilis naturally resolves itself into the management of the primary, the secondary, and the tertiary manifestations, of each of which it is necessary to speak separately.

First, with respect to the primary syphilitic sore. Within my recollection a great revolution has taken place in the treatment of this stage of the disease. When I was house-surgeon at the Lock Hospital in 1846, twenty-eight years ago, it was the custom to give a course of mercury in every case of primary venereal ulcer, whether indurated or not. Five grains of blue pill were ordered night and morning both to in- and to out-patients, until the mouth was sore; and the influence was kept up until the ulcer was healed. The object in view was not so much the healing of the primary sore as the prevention of secondary symptoms, and the result, of course, appeared to be eminently satisfactory; for, as we now know perfectly well, about five-sixths of these ulcers will never, even if left alone, be followed by constitutional infection at all, and therefore the credit of prevention was erroneously attributed to the treatment in this large proportion of cases.

Not long afterwards, Ricord began to teach that it was the indurated sore alone which was followed by secondary disease, and that the soft unindurated sore was never attended with the like result. This idea has since been further elaborated by his followers, who have endeavoured to establish the doctrine that these two varieties of local manifestations indicate two different diseases, and are the result of two entirely distinct contagious principles.

Without expressing any opinion as to the vexed question of the unity or duality of the syphilitic poison, I freely admit the value of the researches of the modern school in confining the employment of mercury in the primary form of the disease within proper and rational limits. I suppose it will be admitted that, in the case of a sore attended with indolent circumscribed induration, secondary infection is all but certain to follow if no treatment be adopted; and it will be admitted also that, in the case of venereal ulcers unattended with induration at any period of their course, or with induration of the neighbouring lymphatic glands, the escape from any such result is to be expected in the great majority of instances. This, however, is not absolutely certain; and most surgeons of experience are of opinion that constitutional disease occasionally follows sores in which no appreciable induration has been at any time observable. This possibility should induce caution in diagnosis, for it is, in fact, impossible to predicate with absolute certainty of any given sore that it will or will not be followed by constitutional infection.

With respect to the treatment of the indurated form of sore, in which it is admitted that, if left alone, after-consequences are all but certain, here opinions are divided. There are those who tell us that mercury is useless as a preventive, that the secondary affections are sure to occur sooner or later, and that its effect is only to retard and not to prevent their appearance; that it is better, therefore, to wait, and to treat the original sore by local measures only. Mr. Cooper Forster is a recent exponent of this view. He says (*Guy's Hospital Reports*, vol. xv, 1870): "I could adduce several instances in which the surgeon, immediately on seeing a sore, has announced that sore to be syphilis, and has immediately had recourse to mercury: if no secondaries follow, all the good results are attributed to the drug, whereas it is quite certain that, mercury or no mercury, had the sore been a true syphilis, secondaries must have followed." I cannot agree with Mr. Forster in this, nor can I admit the certainty which he so confidently affirms, for I have repeatedly seen cases of well marked indurated sore, in which secondary disease might have been confidently expected, which I have treated with mercury, and in which no after consequences have resulted. I have had such patients under observation for years afterwards, and it seems to me to be beyond reasonable doubt that in them the immunity was to be attributed to the treatment. I am glad to find that Ricord, when recently in this country, expressed himself with no uncertain voice on this point. He said that "as soon as he had ascertained that there was a hardened chancre, with a swelling of the glands—non-inflammatory—he immediately commenced the mercurial treatment. If the treatment were soon began and well carried through, the breaking out of the first secondary symptoms—the roseola, the swelling of the glands of the neck, etc.—might be prevented. If this were not frequently the case, it was because the treatment was resorted to too late, when the disease had had time to take root, and secondary symptoms were about to show themselves. In such cases it was not astonishing that secondary symptoms should appear, and the treatment ought not to be blamed: if it were steadily continued they soon disappeared. But if the treatment were begun early, the observation of forty years gave him the assurance that secondary symptoms would not appear."

With these statements of M. Ricord I entirely concur, with the slight reservation that I hardly feel quite so confident as to the certainty of prevention as the last sentence I have quoted might seem to imply.

If mercury is the valuable remedy against syphilis which most of us believe it to be, it must surely be right to employ it at the earliest moment that the system has become, or is becoming, infected. The induration may be regarded either as the first sign of general infection—"le premier des accidents secondaires", as Ricord once called it—or it may be looked upon merely as the peculiar local action through the agency of which contamination takes place, which seems to be the opinion towards which Ricord now inclines, and is that which I myself entertain. From either point of view it would seem rational to commence the treatment at once: on the first hypothesis, to get rid of an already existing infection; on the second, to favour the elimination of the noxious influence as fast as it is being introduced. To be effectual, it must be begun early, and must be persevered with, not only until the sore has healed, but until all trace of induration has disappeared, and, as a matter of precaution, in gradually diminishing doses, for some weeks longer still.

Next, as to the treatment of the non-indurated sore, which class will comprise probably some five-sixths of all venereal ulcers. The occurrence of secondary infection in these cases, though possible, is too exceptional to make it worth while to resort to mercurial treatment as a preventive, which would involve giving it uselessly, and therefore mischievously, in the immense majority: and it is, I think, a well established fact, that mercury has no beneficial influence in promoting the healing of this kind of sore, but, on the contrary, is more likely to retard it.

The treatment of the non-indurated sore should consist of destructive cauterisation in all recent cases, say, of not more than five or six days' duration. Nitrate of silver is inefficient for this purpose; it irritates and inflames, but does not sufficiently destroy. The caustic I prefer is the strongest procurable nitric acid, which should be applied freely, but of course very carefully, both to the surface and edges of the sore. If the destruction be complete, the sore rapidly heals when the slough separates, and all after-consequences are averted. After the period mentioned, however, cauterisation is so often ineffectual, that the better plan appears to be to let the sore run its course. The treatment should then consist of, above all, scrupulous cleanliness, the application of gently stimulating and cleansing applications to the ulcerating surface, and the avoidance of all extraneous irritation by overexertion, friction with the clothing, or otherwise; with, of course, such attention to the general health as the circumstances of each case may require.

By means of this kind, it is surprising within what narrow limits this form of disease may be confined, and to what an extent all more severe complications may be averted. This is seen in a remarkable manner in the Female Lock Hospital in the women admitted under the Contagious Diseases Acts. Of course, in these patients, soft sores are common enough, but, from the fact of their being secluded for treatment at an early period, the sores are for the most part small and superficial, and very speedily heal. Suppurating buboes are extremely rare, and anything like phagedæna or sloughing still more so. On the other hand, amongst the women who apply voluntarily, and who have neglected to attend to themselves until their symptoms become severe, or who practise prostitution as long as they are physically capable of doing so, deep-spreading ulcerations, inflammatory swellings, and suppurating buboes, are exceedingly frequent.

Under early and compulsory treatment, and with hospital diet and regimen, from a fortnight to three weeks appears to me to be about the average duration of this kind of sore. If the progress be slower in most of the cases met with in private practice, especially in the male sex, it is probably because the patients are as a rule compelled to follow their usual avocations; they cannot attend carefully to the dressing of their sores, which are subjected to various kinds of local irritation, and they are often irregular and imprudent in diet and habits.

I shall not occupy your time by alluding to phagedænic or sloughing sores, partly because time will not permit me to do so, but also because phagedæna cannot be regarded as having any direct relation to syphilis. It is an accident of syphilis merely, and may supervene upon any form of syphilitic ulcer, just as it may supervene on sufficient cause, either general or local, on any other description of ulcer in any part of the body. The treatment has no relation to the treatment of syphilis, but must be conducted on the same principles as that of phagedæna generally. I have only to say, that the occurrence of phagedæna in a syphilitic sore is an imperative reason for discontinuing any mercurial treatment that may have been commenced.

The more comprehensive question of the management of constitutional syphilis next comes under consideration. The division into a secondary and a tertiary stage, although the line of separation may not always be distinctly marked, is very convenient with reference to the question of treatment. The secondary class of symptoms comprises cutaneous eruptions, of which the mildest form is the discoloration or mottling called roseola. Next come the scaly varieties—psoriasis and lepra, the papular eruption, lichen, and cutaneous tubercle; associated with these are chronic enlargements of the lymphatic glands in various parts of the body. In the same group may be classed the mucous patches common on the female genitals, and sometimes seen on the scrotum and penis, and around the anus, in the male; also mucous patches and superficial ulcerations on the tonsils, tongue, cheeks, and palate, and on the os uteri. With the secondary group may also be mentioned some, but not all, cases of iritis, occasionally, perhaps, chronic orchitis, and osteocopic pains in the bones and joints.

In the treatment of secondary syphilis, the balance of opinion is undoubtedly in favour of mercury as the remedy which exercises the most decided therapeutic influence over the disease. For centuries, in spite of frequent and vigorous opposition, it has held and still maintains the foremost place; and probably the profession was never more unanimous in its favour than at the present time. Nevertheless, I have great doubts whether, in consequence of its flagrant abuse in former times, it has not, on the whole, done infinitely more harm than good; whether, in the treatment of syphilis, it has not been a curse, instead of a blessing, to the human race. I believe that we are only now beginning to confine its administration within proper limits, and that even now the tendency is in many quarters in the direction of over-mercurial treatment. We are greatly indebted, in my opinion, to the antimercurialists, and especially to the army surgeons in the early part of this century, amongst whom the name of Mr. Rose stands conspicuous, for demonstrating the fact that syphilis does not necessarily require mercury for its cure, but has, like most other diseases, a natural tendency towards recovery; that the old rule of action, more syphilis more mercury, is a mischievous delusion, arising out of the idea, that without it syphilis must necessarily go on from bad to worse. I think it, above all things, important that we should dismiss the notion that mercury is a specific or an antidote for syphilis, in the sense in which those terms are usually employed. Few probably would now contend that mercury holds this position; for we know well that syphilis will run its course and terminate favourably without any mercurial treatment at all. But, on the other hand, there are few who have had much to do with syphilis who have any doubt that mercury does exercise a marked beneficial influence over it; that it does hasten the disappearance of existing symptoms, and not only that, but it also hastens the progress of the disease and the restoration of the individual to health, without any equivalent disadvantage, if properly managed, if kept within certain limits, and if used at appropriate periods.

We have little definite knowledge of the mode in which any remedy operates; but I think we are justified, at all events, in saying of mercury that it is the most efficient agent we possess for stimulating the various emunctory organs, for accelerating interstitial change, and for promoting the absorption of morbid products, so long as the action which has led to their deposition is of an active or sthenic character. I believe it to be in this way that it acts so beneficially in the elimination of the syphilitic poison. It is not antisyphilitic; but it is a most valuable adjuvant to the efforts of nature towards recovery, when these prove, as they often do, insufficient for the purpose.

An important question now arises, whether mercury should be resorted to at once indiscriminately in every case of secondary syphilis, or whether the milder forms may not safely be left to the unaided operation of nature. The latter plan has been recommended by experienced authorities in France, and what I have seen of late years has led me to look upon it with more and more favour. I have of late seen a large number of women who are under the Contagious Diseases Act, who, when they suffer from syphilis, develope that disease in the mildest possible form. It is indeed a most remarkable fact, that this legislation has not only greatly diminished the quantity of disease, but has also had a very marked beneficial influence upon its quality, in its secondary no less than in its primary stage. The great majority of the women affected with syphilis present only a few mucous tubercles on the genitals, usually, though not always, associated with a faint eruption of roseola on the trunk of the body. These symptoms, though unmistakably syphilitic, I find, rapidly disappear under local treatment only; and I hesitate, therefore, to commence a mercurial course, which, to be properly carried through, would require the detention of the patients in hospital long after all their outward symptoms, including the uterine and vaginal discharge which is almost constantly present, have disappeared altogether. When these patients have relapses at all, they are of the mildest possible character; if they are again sent to hospital for treatment, it is often only for a recurrence of their vaginal discharge, or for a slight return of their syphilitic symptoms, rarely for any development of the disease into a more aggravated form. They appear to have imbibed so small a dose of the poison, or to have imbibed it in so unconcentrated a form, that they may safely be left to get rid of it by their own unaided powers.

There is another class of cases in which a non-mercurial treatment is sometimes applicable. I allude to those in which there is an evident strumous or consumptive tendency, which renders it desirable, if possible, to dispense with a mercurial course. I will mention an illustrative case, but I have seen many others of the same kind. A youth, aged 19, was brought to me, about eight years ago, by his medical attendant, who had known him from his birth. He had a well marked indurated sore, which had existed for about three weeks. Its appearance was such as to lead me at once to examine further, and I found a copious roseola on his back and chest, which soon afterwards developed itself into a well marked scaly eruption. He had been delicate from his birth; had been reared with difficulty, and had an hereditary phthisical predisposition; for which reasons, it was thought advisable to avoid subjecting him to mercurial treatment, if it could possibly be avoided. He took cod-liver oil and iron; was sent to the seaside, in order to place him under the most favourable hygienic conditions, and the result was, that, in four or five months, he completely recovered. I have seen him repeatedly since in perfectly sound health, and I know that he has had no further symptoms of the disease. At the same time, I am far from wishing to lay down a rule that mercury should never be used in syphilitic patients, because they may happen to have strumous or consumptive tendencies. If it can be avoided, so much the better, as the above case shows; but, when the disease is more actively progressing, it will often prove not only the lesser evil of the two, but will be of the most signal service.

But the cases in which the benefit of mercurial treatment is most distinctly marked are those of persons in sound health, with a copious development of scaly or papular eruptions, and the usual concomitant affections of the mucous membranes. In such persons, it will usually cause the rapid disappearance of existing symptoms, which is the best possible evidence that the morbid influence is, for the time at least, much diminished. Relapses may occur, especially if the treatment be not sufficiently long continued, but they will usually be slighter on each successive occasion, and, by perseverance, the complete eradication of the syphilitic taint may be confidently hoped for in the great majority of cases.

It is my firm conviction (indeed, I never doubted the fact) that syphilis is absolutely curable; that it is not a life-long disease, as some have maintained. It is generally admitted that, so long as a person is suffering from secondary syphilis, he is incapable of contracting an indurated sore, or any further constitutional infection. If, then, cases are met with in which, after a lapse of time, patients do contract a second indurated sore, followed in due course by a secondary general infection, they afford strong proof that the first attack has been radically cured. This is the view now entertained by Ricord, whose long experience has shown him many such cases. It is corroborated by the cases recently brought before the Royal Medical and Chirurgical Society by my colleague Mr. Gascoyen, and I have myself seen repeated instances of the same thing. The curability of syphilis is also further evidenced by the number of persons, young men especially, who have suffered from it, and who afterwards marry, and have perfectly healthy families.

With respect to the mode of administering mercury, I believe it to be comparatively unimportant whether it be by the mouth, by inunction, or by fumigation. Inunction is, perhaps, on the whole, to be preferred, especially for hospital patients; but it is troublesome and dirty, and therefore it is often undesirable to resort to it in private practice. The same objection applies to fumigation, with the addition that it is, as a rule, more debilitating; for the nightly vapour-bath has a decidedly depressing influence. At the same time, it may have its special uses, and may be appropriate where there is an obstinate chronic eruption, by introducing the remedy through the surface on which the disease is exercising its most deleterious influence.

On the whole, therefore, I prefer, in all ordinary cases, to give the remedy by the mouth; and I believe there is no better formula than the old blue pill. I find this equally effectual, and less irritating, than the iodide of mercury, which is generally preferred in France. I am not now in the habit of prescribing more than five grains daily—two grains and a half night and morning, with one-sixth of a grain of opium. This is usually enough to produce some slight effect on the gums in ten days or a fortnight. When this is the case, the dose should be reduced by one-half; for, although it may be desirable to have evidence that the remedy has really penetrated the system, it is most important not to pass beyond the remedial into the poisonous dose. In this way, we may get all the good that can be obtained from a mercurial course without any of the evils, real or supposed, which have been alleged to result from it; and it may be continued without injury for a lengthened period. The disease is essentially chronic, and the employment of the remedy must be equally so. It should be continued, but in diminished doses, for some time after all outward symptoms have disappeared, though probably the six months' course laid down by M. Ricord may be more than is necessary in many cases. M. Ricord stated that unless a patient will consent to submit to treatment for twelve months, he will have nothing to do with him. The first six months he is to take mercury, and then, if no symptoms reappear, treatment with iodine is to be begun, and continued for six months longer. The six months' mercurial treatment may be sometimes necessary, but I am quite at a loss to understand why it should be followed by a six months' treatment with iodide of potassium. M. Ricord admits that iodine is useless in secondary affections, and is only appropriate when the tertiary stage has set in. Why, then, use it at all as an adjunct to the treatment of the secondary stage? and why combine the two remedies in this stage, which is a practice I find frequently adopted? If, from any cause, it be considered undesirable to use mercury, it is a mistake to suppose that the next best thing is to give the iodide of potassium, which appears to have no therapeutic value whatever, either in the primary or in the secondary stage.

I have no personal experience of the subcutaneous injection of solutions of the perchloride of mercury for the cure of syphilis; for I cannot see what object can be gained by introducing so powerful an irritant into the areolar tissue while there are other and far preferable modes of arriving at the same result.

I have indicated a preference for the blue pill in the treatment of secondary syphilis; but the perchloride and the biniodide of mercury have their appropriate uses, and are often of great value. They are especially applicable to cases of relapse, in which mercury in other forms has already been used, and in which the health is beginning to suffer, although the manifestations still appertain distinctly to the secondary group. I allude especially to obstinate palmar and plantar psoriasis, and to those affections of the mouth and throat which are often so troublesome and persistent.

We come now to the treatment of the tertiary stage of the disease, which comprises ulcerative skin-affections, such as ulcerative tubercle and rupia, deep ulcerations of the throat, palate, and fauces; some cases of iritis and of orchitis, affections of the periosteum and bones, and of the fibrous tissues of joints; gummatous tumours of the cellular and muscular tissues, and the more deep-seated deposits of similar character in internal organs. When the tertiary period arrives, the direct influence of the poison would appear to have passed away, and to have left behind it a cachectic condition which manifests itself in destructive ulcerations, in diseases of the bones and of various internal organs. That the character of the disease has undergone a marked alteration seems clear, from the fact that transmission to the offspring, frequent in the secondary stage, rarely if ever occurs in the tertiary. The children of persons with tertiary disease do not, at all events, show any marked syphilitic symptoms either at birth, or shortly afterwards. They may be often weakly and may inherit a tendency to scrofula and other disorders which indicate debility and malnutrition, and which may be the result of impaired health in one or both of the parents, but they certainly do not, except very rarely, exhibit anything like syphilis properly so called.

The tertiary manifestations have often been attributed to the excessive use of mercury for the cure of the earlier stages; and no doubt in former days the abuse of that remedy greatly aggravated the later train of symptoms, but there is no doubt, also, that they all may, and not unfrequently do, occur in persons who have not taken a single grain of mercury. They are veritable sequelæ of syphilis, and they never happen in those who have taken mercury, in however large doses, for any other disease.

Nothing is, I think, more certain than that, as a general rule, mercury is injurious in this class of affections. They are essentially asthenic in their origin, and the remedies required are those which will repair the failure of nutrition and restore the debilitated powers. For this purpose, good diet and stimulants, with pure air and other favourable hygienic conditions, are of great importance; but it is now especially that the value of the salts of iodine becomes so strikingly apparent. Under their use, rupial ulcerations rapidly heal, periosteal swellings, gummatous tumours, and soft nodes are rapidly absorbed; while usually the general health improves in a remarkable manner, and the strength and weight of the patient are increased. But though existing symptoms quickly disappear, relapses often take place, for it is not to be expected that so serious a cachexia can be eradicated by a few weeks' treatment. On the recurrence of symptoms, the remedy must be again and again resorted to and persevered in, with the result, often even in the worst cases, of the ultimate and permanent restoration of the patient to health.

I do not concur in the view sometimes entertained that the iodides only remove existing manifestations and do not cure the disease, and that for this purpose mercury is subsequently required. My own experience leads me to believe them to be absolutely curative, if persevered in long enough, in a large proportion of cases; while I can testify to the mischief frequently occasioned by the imprudent employment of mercurials at this stage. It will aggravate spreading ulcerations, will cause rupial sores already healing or healed again to ulcerate or reopen, and soft nodes to suppurate and give rise to caries or necrosis.

Dr. Wilks considers that the gummatous tumours often seen in the subcutaneous and muscular textures and elsewhere, should be reckoned in the secondary group, and that the fibro-plastic deposit, of which they consist, is of that character in which mercury is useful as an absorbent. He regards as *tertiary* the syphilitic cachexia or sequelæ of syphilis, which are associated with destructive processes, such as extensive ulceration or sloughing in soft structures, and caries or necrosis in bone; and the lardaceous or waxy deposit sometimes found in internal organs. In all these latter he considers mercury injurious, and resorts to the iodide of potassium.

I cannot agree with Dr. Wilks (*Guy's Hospital Reports*, vol. ix, 1803), that the fibro-plastic deposits in the muscles, in the bones and elsewhere, should be classed with the secondary group, and that they require mercury for their removal. On the contrary, I should say, as matter of fact, that they, of all others, are the symptoms most markedly under the control of the iodide of potassium. There are some forms of morbid deposit, undoubtedly, which are more favourably influenced by mercury than by any other remedy; but plastic effusions are very variable in their character and tendency, from the rapidly organisable lymph in acute pleurisy, to the rapidly degenerating material effused in carbuncle or in phlegmonous erysipelas. Mercury will be invaluable in promoting absorption in the one kind, while it would only increase degenerative tendency in the other.

The absorptive power of mercury is, I believe, in proportion to the sthenic character of the morbid process which is to be counteracted. It is useful whenever the associated general condition tends in the direction of hyperæmia and of vascular and nervous excitement. It is injurious in the opposite condition of vascular depression, anæmia, and general failure of power; and these latter are the almost constant characteristics of tertiary syphilitic disease.

One important point in the administration of iodide of potassium, in my opinion, is to abstain from large doses at the commencement. It is better not to give more than three or four grains thrice daily at first, increasing each dose by a grain about every four days, till fifteen, twenty, or thirty grains are reached. I have not usually found any further advantage obtained by resorting to the heroic doses which are now sometimes prescribed, though I am far from saying that they may not sometimes be beneficial. Gradual increase of dose is the most important point to be attended to. I think that disappointment often occurs, and the remedy is discredited, by remaining stationary at the same dose, whether it be small or large. Its efficacy seems to be increased by combining it with carbonate of ammonia; and it is less likely to disagree when taken in a large quantity of fluid. There is no better vehicle and adjuvant to it than sarsaparilla in the old form of decoction, which, I regret to find, has fallen almost completely out of fashion. Sometimes, there is great intolerance of the iodide of potassium, even small doses producing dryness of the throat, headache, and coryza. Here the iodides of sodium and ammonium may be used with advantage; they may, perhaps, not be so efficient, but they are certainly much less irritating. The iodide of sodium is, I think, of the two to be preferred. I have found it necessary to descend to half-grain doses even of the iodide of sodium in some cases, and have in this way been able gradually to augment it up to ten or twelve grains, and with the most satisfactory results. I remember one patient especially in whom in this way full tolerance of the iodide of sodium was obtained, but who was at once upset by any attempt to give him iodide of potassium. This patient had severe tertiary syphilis, from which he recovered perfectly, and has remained well for years.

I have no explanation to suggest of the way in which the iodides operate so beneficially in tertiary syphilis. There is some reason to believe that they act as a solvent for some metallic substances which have become incorporated with the tissues—of lead, for example, and not improbably of mercury. Hence may arise their influence in causing salivation, as they not unfrequently do, in those who have taken mercury in excess; and hence the necessity for caution at the commencement of their employment in such cases. This is one way in which they may be of service, but it is not their only, or by any means their principal use, for their good effects are equally manifested when no mercury at all has been given, and also when the tertiary stage has set in, as is sometimes the case, without having been preceded by the secondary.

The main principle to be followed is, that mercury is the remedy for the secondary stage, and that the iodides are the remedy for the tertiary. I believe iodine to be seldom if ever useful, and usually harmful in the first, while mercury is rarely if ever admissible in the latter. There are cases, however, in which the two conditions overlap, in which tertiaries become developed while chronic secondary affections still remain; and here a combination or alternation of the two remedies becomes useful. I believe alternation to be better than combination, the iodide being used first until the tertiary symptoms are removed or amended, and the health improved; after which a mild course of mercury may be cautiously resorted to for the remaining secondary affections.

I have already mentioned that there are some, whose opinions are entitled to all respect, who think that iodine is insufficient for the cure of tertiary syphilis without the subsequent employment of mercury, and who are in the habit of using the latter systematically even in advanced cases. I have seen some few instances in which this practice has appeared to be of signal service; but I have seen so many others in which the results have been disastrous, that for a long time I have ceased to resort to it—the more so that I have met with so many of the most unpromising cases successfully carried through by persistence, in spite of all discouragement, in the use of the iodide of potassium. I think, as a matter of fact, that the cases of true tertiary disease in which mercury proves useful after the iodides have failed, will be found to be extremely rare. I should never suggest it myself unless the case appeared to be going on hopelessly from bad to worse. I should not think it sufficient cause that the symptoms remained stationary; they will often remain so even for months while the iodide is being taken, whereas they will immediately get worse if it be discontinued. This is no evidence, therefore, of its failure, for we are indebted to it for the maintenance of the *status quo*, which is no small matter in so serious a cachexia as that with which we have to deal. I should not give it up even if some fresh accession of symptoms were developed under its use, but should consider this as an additional reason for continuance, and for an increase of the dose. In the treatment of tertiary syphilis, time is on our side; patience and perseverance is the doctrine I wish to preach.

I have given an outline—a very imperfect one, as I am fully sensible—of what I believe to be the appropriate treatment of the different phases of syphilis. My chief object has been to allot to the two leading therapeutic agents—mercury and iodine—each its appropriate sphere; to confine the use of the former especially within properly circumscribed limits, because I believe it to be even now often used greatly in excess, much too empirically, without a sufficiently definite idea of what may be expected from it, or of the forms and periods of the disease to which it is applicable.

MR. JOHN SWINDALE has been awarded, on July 5th, £2 15s.; and on November 3rd, £3 15s., for efficient vaccination in the Binfield district of the Easthampton Union, Berks.

WE understand that Dr. Wickham Legg, Casualty Physician of St. Bartholomew's Hospital, is also a candidate for the vacant office of Assistant Physician.

DIPHTHERITIC PARALYSIS:

ITS NATURAL COURSE, PATHOLOGY, TREATMENT, AND RELATION TO PARALYTIC AFFECTIONS FOLLOWING FEVERS.*

By SIR JOHN ROSE CORMACK,
Chevalier of the Legion of Honour; M.D.Edin. and Paris; F.R.S.E.; Fellow of the Royal Colleges of Physicians of London and Edinburgh;
Physician to the Hertford British Hospital, Paris; etc.

[*Continued from* BRITISH MEDICAL JOURNAL, *October 17th, p.* 489.]

THE case of S. M., which I have now so minutely described, affords in itself an almost complete study of the paralysis of diphtheria, so far as symptoms and termination are concerned. The history of no single case, however, can convey the whole truth in respect of the natural course, pathology, and treatment of the affection. I therefore proceed to give an account of the leading features of two other cases which have occurred in my practice. One is a case in which the paralytic symptoms were mild; and the diphtheria—the original disease, if I may so express myself—was of maximum intensity, tracheotomy having been necessitated as the only means of saving life. The other case was of considerable severity in the primary manifestations, and slight, though exceedingly characteristic, in the paralytic manifestations. The three cases, viewed together, show that there is no relation between the severity of the general or croupal, and the severity of the paralytic symptoms.

CASE.—On the morning of Friday, October 24th, 1873, soon after five o'clock, a young lady arrived in a carriage at my house, in a state of wild excitement and distress. The object of her visit was to fetch me immediately to aid her little brother, who, she informed me, had been, just before she left home, almost carried off in a suffocative paroxysm. She said he had gone to bed the previous evening between eight and nine o'clock, suffering only from a sore-throat and great debility, attributed to a diarrhœal attack of some days' duration. Until she was hurriedly sent to fetch me, he had not been supposed to require more than domestic medical treatment. On my way to the residence of the patient, I obtained from his sister the material facts embraced in the following history of the case.

E. G., an English child, aged six-and-a-half years, returned to school, after his usual Sunday at home, on Monday, October 20th. He did not then seem quite well, yet there was nothing which seemed to call for his being specially attended to. On the 21st and 22nd, the master observed that the child frequently asked permission to leave the class for necessary purposes. On the afternoon of the 22nd, permission to retire was refused, under the impression that the request was made from a mere childish trick of idleness, and not under the constraining influence of a real necessity. The sequel showed that this was a mistake. When refused, the child burst into tears; and, unable to restrain the bowels from acting, saturated his clothes with a copious alvine discharge. He was undressed; and, his drawers being wet and dirty, he was dressed without them and sent home to the house of his parents, that his condition might be inquired into and treated. On the 23rd, he complained of sore-throat, breathed badly, and was observed to have nearly lost his voice. He had several liquid motions during the day. To cure the purging, he was made to drink rice-water freely, and for the other symptoms, attributed to his having caught cold in consequence of his having been sent home without his drawers, his mother administered an emetic prescribed by a neighbouring pharmacien on her report of the symptoms. The emetic was taken just before the child went to bed. The emetic operation—violent and of short duration—afforded very considerable temporary relief to the dyspnœa, which had been becoming more and more urgent and more and more frequently paroxysmally exacerbated for the preceding twenty-four hours. It was about six in the morning of the 24th October—twelve hours after the action of of the emetic—that I first saw the patient. I then, in reply to questions addressed to me, informed the family that it was not in my power to allay alarm by giving a favourable prognosis.

The information I had received on my way to the house had excited my most unfavourable suspicions. A glance at the patient, and a few words spoken by him in reply to my salutation, immediately confirmed my fears, and impressed me with the conviction that examination of the patient would show him to be stricken with asthenic diphtheria already in the croupal stage, and probably advancing rapidly therein from bad to worse.

Before I entered, the child, as I was told, had considerably quieted from a sudden dyspnœal paroxysm. I found him supported in bed by pillows in a semi-recumbent position. His countenance was painfully anxious in expression, and dirty pallid in complexion. His words were spoken distinctly, but very slowly and in a feebly husky whisper. The neck had a turgid appearance, the large veins showing conspicuously, and some of the glands on both sides near the maxillary angle were enlarged and somewhat tender to the touch. The pupils were responsive to the light; they were abnormally dilated. From the nostrils, there was a slight serous oozing, which may be described as a dampness apparent at the nasal orifices, and encroaching on the upper lip. The tongue, gums, tonsils, fauces, uvula, and the mucous membrane of the pharynx were coated in their entire visible extent with a tough tenacious substance of a dirty grey appearance. Having tied a handkerchief over my mouth, to prevent the possibility of its receiving any ejecta, I explored my patient's throat with the aid of a strong light. Observing a ragged edge of membrane on one of the tonsils, I took hold of it with forceps and easily stripped off a scrap of the unmistakable diphtheritic pellicle. The pulse was very feeble, and the extremities were cold. The intelligence was unaffected. He said that the pain, which for some days had been considerable in the throat, was gone, and that his only present distress was want of air. No words were required to tell me that intense air-hunger—to Anglicise a graphic expression employed by German physicians—was the immediate source of his distress. During my visit, which lasted nearly two hours, I had ample opportunity to make this and all other necessary observations.

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* Partly read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

The treatment I adopted was the immediate administration of a wineglassful of port wine and the application of turpentine stupes to the legs. I wrote a prescription for the glycerate of borax and the compound tincture of cinchona of the *British Pharmacopœia*, and waited their arrival. I smeared the whole of the diphtherically coated surfaces with the glycerate, and gave two drachms of the tincture in a second glass of port wine. Before leaving the house, I unreservedly stated the extreme gravity of the case, and in particular mentioned that at any moment the operation of tracheotomy might be required to prevent closure of the air passage by the rapidly forming membranous exudation. The child was in a decidedly less alarming state, in respect to immediate danger, than when I arrived.

I returned at ten o'clock. There was not then any apparent increased urgency in the symptoms. The mother fancied that the child's condition had ameliorated; but this opinion rested only on the fact that there had been no renewal of the dyspnœal paroxysm. A small quantity of urine passed half an hour before my return. On testing it by heat and nitric acid, I found it to be very albuminous. Under all the circumstances, I deemed it right to repeat the unfavourable prognosis which I had already given. I intimated to the mother and other members of the family that I looked upon the child's life as in great jeopardy; that the disease was diphtheritic croup, by which the entrance of air into the lungs was being rendered more and more difficult by the air-passage becoming more and more blocked up by the formation of false membrane on its mucous surface, as well as by a submucous effusion of serosity; that at any moment the operation of tracheotomy might become imperative, and that its being rendered unnecessary by a change for the better could hardly be expected. I represented strongly the propriety of a consultation with another physician, and the despatch of a telegram to acquaint the father, temporarily absent in London, of the extreme gravity of the child's illness. The consultation was agreed to at once; but, from incredulity as to the gravity of the case and an unwillingness to alarm an affectionate parent, the telegraphic message was not sent. Had I been absolute dictator of the course to follow, I should at this time have immediately performed tracheotomy. There was no sufficient reason for delay. Nevertheless, as the opposition to the operation on the part of the mother was very strong, and as there still remained a short period during which emetics and other measures might be watchfully though not very hopefully tried, I reluctantly consented to act energetically in another direction, and delay tracheotomy till it was sanctioned in consultation. Forthwith I administered an emetic in port-wine negus. Some of this potion was swallowed, though with considerable difficulty; a small portion of it was returned through the nose. In about half an hour, active vomiting was induced for two or three minutes, during which some shreds of thick tough false membrane were ejected. This was followed by a decided though very temporary amelioration, due, no doubt, to partial clearing of the air-passage and general reaction directly caused by the operation of the vomitive. The pulse became stronger, the respiration easier, and the face lost a good deal of its congested semi-purple hue. On leaving the house about eleven o'clock, I ordered a continuance of the frequent local application of glycerate of borax, and the internal use of wine and cinchona.

At six in the evening, I found the child somewhat stronger, and breathing quite as easily as when I left him at eleven. There had been no suffocative paroxysm during my absence. It was agreed that my next visit should be at midnight, and that at nine next morning Dr. Benjamin Ball and I should meet in consultation. Till midnight, I directed a continuance of the treatment which I had laid down at my forenoon visit.

At midnight, I found that the temporary amelioration had ceased, and that the symptoms were even more alarming than I had yet seen them. The child had a semi-asphyxiated appearance, and breathed with great difficulty. The face was swollen and purple, and the neck was turgid. I sent a messenger to summon Dr. Ball, as it seemed very doubtful whether the operation could be delayed till nine next morning, the hour for which our consultation had been fixed. When Dr. Ball arrived, the patient was breathing much better. The only explanation of this change which suggested itself to us was that, in the terrible struggles for breath, portions of the laryngeal false membrane had become detached, and displaced in such a way as to allow a freer admission of air into the lungs. After an anxious consultation, Dr. Ball and I came to the conclusion that, as the family were exceedingly opposed to tracheotomy, and as there was a remission in the symptoms, we might delay the operation yet a little longer.

October 25th. At nine o'clock, Dr. Ball and I met in consultation. We urged the operation as an immediate necessity, but without success. There being no increase in the urgency of the symptoms, we agreed to delay, and meet again at nine in the evening to decide the question. Several times during the day, I paid short passing visits, and on each occasion found matters getting worse and worse. At nine, when Dr. Ball and I met, we felt that there was no time to lose; the child was becoming asphyxiated. We insisted on immediate operation, or, if time permitted, a consultation with some eminent authority in such cases. We suggested that Dr. Jules Simon should be summoned at once, and before ten o'clock we were in consultation with him at the patient's bedside. He thought that the operation had been too long delayed, and strongly expressed himself to that effect to the mother, who, looking at her child, then fearfully struggling for air, fully surrendered it to us. We told her that, without immediate tracheotomy, the child must inevitably die within less than an hour, perhaps much sooner; that it might be saved by the operation. We also said that, on the other hand, it might die ere the operation were completed. In so speaking, we did not exaggerate the gravity of the situation.

Dr. Jules Simon operated at 10 P.M. There was an immense flow of blood during the operation from the congested veins. The wound being freely held open for half a minute, large portions of false membranes were forcibly expelled by the expired air, and other large shreds were drawn out of the trachea by the forceps. Immediately before and also during the operation, a favourable issue seemed very improbable. No sooner, however, was the tube inserted, than the loss of blood ceased and the symptoms of asphyxia disappeared. After the administration of some port-wine negus, the child fell asleep. I remained with him. He awoke in an hour, from portions of detached false membrane choking up the tube, and thereby inducing a momentary return of the asphyxial symptoms. Without taking the tube out of the trachea, I was able to clear it perfectly by dragging out large pieces of membrane. I remained with the child from the time of the operation till seven next morning. During the night, he slept a good deal, and took a fair amount of beef-tea, alternated with port-wine negus, to which latter a teaspoonful of the compound tincture of cinchona (*Brit. Ph.*) was twice or three times added.

October 26th, 1 P.M. Drs. Ball, Simon, and I met in consultation. There was some subcutaneous emphysema around the operation-wound. A bright rubeolar eruption was conspicuous on the trunk and on the legs. This eruption was faintly visible early this morning. The urine was intensely albuminous. The pulse was 120; the temperature was 37.8. Shreds of false membrane were at this time being constantly got rid of through the tube. A mixture of perchlorate of potash and tincture of the chloride of iron was prescribed. Very little of this mixture was ever taken, the patient's mother objecting to ferruginous medication, which, she said, did not agree with her family.

October 27th. At my first visit (7 A.M.), I found the condition not quite so favourable. There had been some oozing of blood from the operation-wound, the edges of which were coated with diphtheritic pellicle. The urine was intensely albuminous. The pulse was 120, very feeble. The temperature was 37.8. At noon, his state was very similar. At 10 P.M., there was a still feebler pulse. The greatest difficulty had been experienced during the day in administering aliment. He was evidently in urgent want of his beef-tea and brandy, and yet he either would not or could not swallow a drop of either. Under these circumstances, I resolved to remain with him some hours of the night. Forthwith I had administered an enema of beef-tea and brandy. I left him for nearly two hours. On my return, he had another similar enema.

October 28th. About three in the morning, I was slumbering on a sofa which commanded a full view of the patient, when I was aroused by the cries of his attendants and a strange noise proceeding from the patient. He was cold, comatose, and convulsed. In an instant, I withdrew the cannula, which was choked up with mucosity and membranous shreds; whereupon respiration was re-established, and a large quantity of frothy mucus expelled through the wound. The cannula was then replaced. The breathing was so feeble, the pulse so weak, and the surface so cold, that I feared the worst. A large cataplasm of mustard and linseed to the chest, turpentine stupes to the legs, and an enema of beef-tea and brandy, were all quickly resorted to. In about an hour or an hour and a half from the time I was aroused, Dr. Jules Simon (whom I had at once sent for) arrived. The child had then very nearly recovered from the critical accident which has now been described. The day passed without the occurrence of any noteworthy incident, except that once the tube was taken out and cleared of the mucosity by which it had again become clogged. At 5 P.M., the pulse was 116; the temperature was 38 cent. (100.4 Fahr.); and the urine still very albuminous, though decidedly less albuminous than it had been since the 26th.

October 29th. In the morning, an amelioration in the state of the patient was observable. The pharynx, nostrils, and operation-wound, were for the first time since the operation free from diphtheritic pellicle. The cervical emphysema and the rubeolar eruption had both disappeared. For an hour, the cannula was withdrawn. For the last two days, the patient had taken an abundant and varied supply of stimulants and aliment, consisting of champagne, brandy, beef-tea, and pounded raw meat with its juice. He had, however, no desire for food. There was great wasting of the body. At noon, the pulse was 96, and the temperature 37.7 cent. (99.8 Fahr.) There was observed at the same hour a notable diminution in the quantity of albumen in the urine. The urine examined was passed at 10 A.M. At my subsequent visits at 7 P.M. and 11 P.M., I found that there was a return of the fever. At seven o'clock, the pulse was 124, and the temperature was 38.8 cent. (102.8 Fahr.) Some urine passed about 10 P.M. was much more albuminous than that passed at 10 A.M.

October 30th. The patient passed a tranquil night. This forenoon, he remained without the cannula for more than an hour. During the day, the breathing became oppressed; and, on examining the chest, the respiratory murmur in the right lung was found to have become feebler. At 9 P.M., I found that the condition had somewhat ameliorated since the morning. The dyspnœa and feebleness of respiratory murmur in the right side had not increased. The urine passed during my visit was rather less albuminous than some which had been passed five hours previously and kept in a separate vessel. The pulse had fallen from 120 to 104; and the temperature was exactly the same as in the morning—viz., 38.8 cent.

October 31st. He passed a good night. At 1 P.M., the pulse was 104, and the temperature was 38 cent. (100.4 Fahr.) During the greater part of the day, he remained without the cannula. He was stronger. The alimentation had been diligently and successfully carried out. In the right lung, the respiratory murmur was very coarse.

November 1st. He passed a good night. He was the whole day, except an hour, without the cannula. The breath-sound was still rude in the right lung; but there was a return of air to the smaller tubes. There was a considerable sero-sanguinolent flow through the operation-wound, the edges of which had a healthy appearance.

November 2nd. The night was disturbed, but nevertheless his condition had improved. The pulse was 88, and firmer; the temperature was 37 cent. (98.6 Fahr.) The right lung much less engorged. The operation-wound was contracting. The child breathed through the larynx and the nose. The urine was still highly albuminous; but the quantity of albumen it contained was now insignificant, when compared to that which it contained some days ago. It then became a semi-solid mass when treated with heat and nitric acid.

November 3rd, 4th, and 5th. Three days of progressive amendment followed, during which the pulse varied between 84 and 88, and the temperature (often taken) was never found above 37.8 cent. (100 Fahr.), and was generally about 37.2 cent. (99 Fahr.) The urine, tested twice or thrice in the twenty-four hours, contained a constantly diminishing amount of albumen till the afternoon of the 5th, when not even a trace could be detected. During these three days, the child was without the cannula.

November 6th. The improvement continued. The child slept well and much. He took abundance of suitable food with appetite. He could blow out a candle, and speak in a low voice. The operation-wound was very nearly, but not quite, closed.

November 7th. For the first time, the child left his bed, and took his meals sitting at a table beside the fire.

December 1st. The child being nearly quite well, daily attendance had lately been discontinued. He spoke in a natural manner. The tracheal wound was solidly closed, and the strength was steadily returning.

The medical and hygienical treatment after the operation consisted in good varied alimentation, pepsine being given with the food; a liberal employment of wine and other alcoholic stimulants; the maintenance, day and night, of an equal temperature in the room, the atmosphere of which was kept moist by steam from a tin basin of water, below which a spirit-lamp was burning. I ought to add, that the room was spacious, and the house situated in an airy locality adjoining the Champs Elysées.

December 24th. The child had now regained sufficient health and strength to walk out, sleep, and eat very much as before his illness. He was, however, very thin. About November 20th, he was observed to be weak and languid, but in no way paralysed. On November 24th—about five weeks after the operation—paralytic symptoms were manifest. The child had a curiously restrained or rather contracted appearance, in consequence of the head falling forward and the shoulders being twisted. There was internal strabismus of the left eye. By an effort of the will, he could raise his head, but was unable to correct the squint. The pupils were equal. The third and fourth pair of nerves were not affected; the sixth pair only was paralysed. The power of accommodation was lost. He had no difficulty in swallowing, nor had he any paralytic symptoms whatever, except those now described. By the advice of Dr. Galezowski, a solution of eserine was dropped into the eye. Ferruginous tonic treatment, which had already been resumed, was continued. After fifteen days, the paralytic symptoms which I have described had entirely disappeared, and no form of paralysis afterwards manifested itself. The patient, twelve months after the operation, was in perfect health.

CASE.—In the spring of 1873, I was consulted by A. B., a gentleman aged 30, under the following circumstances. He came to my house from his hotel in a carriage, into which and out of which he told me he had got with great difficulty, arising, he said, from "rheumatism and weakness of both legs". He attributed his condition to cold and fatigue ten days previously, on his journey from Florence to Paris. In this opinion, he thought he was confirmed by having some cough and sore-throat since his arrival in Paris, and at least a week before his limbs began to fail. He complained of dysphagia almost amounting to an inability to swallow liquids, and of being unable in the morning to see well enough to read the newspaper. After a good dinner and some glasses of sherry, he said, he could read print quite well. When he told me that he had just recovered from a very severe illness before he left Florence, I naturally and correctly concluded that the malady from which he had suffered in Florence was diphtheria, and that the paralytic symptoms which had supervened in Paris were ordinary sequelæ of the primary affection. He informed me that his diphtheritic attack in Florence had been exceedingly severe in respect to the prostration of strength, but that the pellicle had not extended, he believed, from the pharynx into the larynx. The disease, in other words, had stopped short of croup.

For the first few days under my care, the symptoms decidedly increased in severity. He was then taking cinchona and extract of nux vomica. That medication was discontinued, and, in place of it, Orezza water was prescribed. I directed it to be mixed with his wine at luncheon and dinner. He was unable to bear this strong ferruginous water, and discontinued its use after two days. Increasing dyspepsia now intervened, and seriously interfered with his alimentation. The paralytic symptoms continued, but did not acquire greater intensity; in some respects, they were less intense. He was falling into a very depressed state of mind and body, when, about ten or twelve days after he came to me, I ordered him to take before his principal meals a pill containing three grains of pepsina porci, one grain of the saccharine carbonate of iron, and one grain of salicine. Under the use of these pills and a generous diet of varied meats, vegetables, and wine, he rapidly improved, and entirely recovered within four weeks from the day on which he first consulted me. He then left Paris, and I have not since heard of him.

Before deducing conclusions from the illustrations of diphtheritic paralysis now given, other kindred classes of facts claim attention.

In studying paralysis frequently associated with, and consequent upon, diphtheria and fevers, it is necessary to take an enlarged clinical view of kindred affections. We must bear in mind that paralysis, in various forms and degrees, is an occasional sequel of the exanthemata, of various specific fevers, of dysentery, and of some other maladies, among which I particularly refer to the morbid state commonly called hysteria.

In the *Gazette Hebdomadaire de Médecine* for 1859, Dr. Landry published an account of a case of generalised paralysis which set in during convalescence from pneumonia and terminated in death. The case occurred at the Hôpital Beaujon of Paris, in the wards of Professor Gubler, Dr. Landry's narrative is followed by remarks of Professor Gubler, which conclude by a statement to the effect that a paralysis similar to that which occurs as a sequel of diphtheria may supervene as a secondary result of numerous maladies very different from one another, but all producing exhaustion of the nervous system, impoverishment of the constitution, and a lowering of organic power—conditions favourable to the production of permanent disorder of the innervation. On the appearance of this case, Dr. Macario of Nice laid claim to priority in a communication published in the *Union Médicale* of Paris for Nov. 8th, 1859. He there gives the details of four cases of pneumonic paralysis. Dr. Macario's cases are given in his work on *Dynamic Paralysis*, which received a meed of honour from the Academy of Sciences of Montpellier, and was published in the *Bulletin Général de Thérapeutique* for December 1850. Many authors, writing before and since that date, have described cases of pneumonic paralysis. To priority in the publication of such cases, Professor Gubler lays no claim. The important claim to priority which he does put forth is thus expressed: "Le seul mérite que je puisse revendiquer est d'avoir le premier, je crois, élevé au rang de fait général la production des paralysies généralisées comme effet secondaire de toutes les affections de courte durée, vraiment dignes par leur intensité du titre de *maladies aigues*." He explains that, under the term "acute diseases" (*maladies aigues*), he includes only the diseases properly designated fevers and the inflammatory diseases accompanied by fever. Professor Gubler has, I think, succeeded in establishing his proposition that all the diseases embraced in his restricted category of "acute" may induce local or general paralytic affections during their evolution and after the cessation of their active manifestations.*

A similar opinion is expressed by Dr. E. Fritz in his valuable work on the different symptoms referable to the spinal marrow which frequently occur in the course of typhoid fever. He strongly dissents from a view put forth by Drs. Lombard and Fauconnet of Geneva, to the effect that typhoid fever, to the exclusion of other acute diseases, possesses a monopoly of spinal symptoms. He admits that, in various forms and degrees, they (including paralytic affections) occur in the course of, as well as during convalescence from, erysipelas, pneumonia, pleurisy, and bronchitis.†

[*To be continued.*]

ON PLEURITIC EFFUSION.

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[*Concluded from p.* 705 *of last number.*]

THE foregoing rules of treatment have been given for those cases in which urgent symptoms do not exist to demand a more speedy removal of the effusion, and when the slower process can safely be tried. But there are many examples of this complaint, when, from various reasons, other and more effective means cannot be delayed. I, therefore, now approach the consideration of that which is by far the most important remedial measure in pleuritic effusion, viz., *paracentesis thoracis*. It would be out of place here to enter into any lengthened detail of the history of this operation, as much information has been latterly given by others on this head, and *thoracentesis* has been supported by far more advocates than it formerly attracted. In passing, it may be briefly observed, that paracentesis has been practised from very remote ages, having, like many therapeutic agents, been at times almost abandoned, and then having been had recourse to again. We must go back to the school of Hippocrates for the chest having first been punctured; and it is strange that the great and manifest benefits which result from this, a comparatively simple operation, and really an operation attended with little or no danger, should have not been rendered more available. Hippocrates describes the symptoms which necessitate the perforation of the chest, but the father of our art had not the preciseness of diagnosis which discoveries and accumulated experience have given to the modern physician. The Hippocratic schoolmen knew not the difference between hæmorrhagic, purulent, and hydrothoracic effusions, nor yet between these and pneumohydrothorax. They relied upon succussion. The physical signs, which to us are exact exponents of the hidden state of things, were to them unknown. Galen merely followed Hippocrates. Celsus gives the operation no prominence. In fact, the Greeks, Romans, and Arabians, allowed it to fall into desuetude. In the sixteenth century, that epoch renowned for the revival of science, as it is renowned for the culmination of letters, opening the chest was once more brought into notice. Fabricius advocated paracentesis, and observations made on penetrating wounds strengthened arguments in its favour. Bontius and Bartholin took up the question, and much was said relative to the introduction of air into the pleural cavity. In the seventeenth century, Gerome Goulu, Zacutus Lusitanus, Willis, and Lower, mention cases of paracentesis. About this time, Drouin used a trocar, and a hundred years later, Leirde advocated the use of the same instrument. The introduction of the trocar was, however, withheld, from a false fear of penetrating the lung. It could not be decided, as we can now decide, when the lung is in juxtaposition with, or when it is pushed away, from the chest-wall. The discovery of Laennec conferred a certitude in this as it conferred a certitude in many other points in thoracic pathology, and a sure and an enduring basis was laid for the more extended employment of thoracentesis; in fact, the stethoscope inaugurated a new era in the treatment of pleuritic effusion. At the beginning of the present century, the evacuation of liquid from the pleural cavity was rarely ever had recourse to. A few sparsely narrated cases may be found in medical literature, but the great usefulness of this expedient had no hold on the general professional mind. Not only, as I have already remarked, was there a dread of penetrating the pulmonary substance, but there was a dread of fatal syncope, and a dread of the admission of air into the sac. Hamilton Roe, in his excellent monograph, which did much good service in recalling attention to this question and to the re-establishment of the operation, remarks that Boyer, Dupuytren, Cooper, Laennec, Gendrin, and Stokes, were opposed to it. Such high names would doubtless weigh with many, and form no mean barrier to the progress of this potent remedial measure. To Roe, Davies, Trousseau, and Hughes, and, it may also be said, to Bowditch and Morill Wyman, is mainly due the credit for having brought into comparatively common practice the puncturing of the chest-wall, and thus the observance of a curative means which can hardly be over-highly estimated, as it is beyond all dispute that many lives are now saved which even twenty years ago would have been sacrificed to inertness and the let-alone treatment.

Paracentesis thoracis may be contemplated in reference to two objects being attained by its use; and these are, when a curative and when a palliative result is expected. We sometimes have recourse to it when recovery seems out of the question, and when there are such complications as to indicate an approaching fatality. It may then be the means of affording relief to urgent suffering, as when there is dyspnœa with threatening of orthopnœa, and also of extending life. In those instances in which we hope for a cure, it should always be held in mind that the success of the operation must greatly depend upon the condition of the system generally, upon the amount of strength, and the state of the visceral organs. Louis long ago pointed out this fact to be held in view. Impairment of the digestive and assimilative functions retards the well-doing of the patient; and, if there be renal disease and a lowered tone in the vital powers, the issue becomes very doubtful. It is beyond dispute that it is, like tracheotomy, far more successful when employed early than when employed late; as I have already remarked, before false membranes and fibrinous deposits bind down the lung and become organised. It is generally difficult to determine the precise time when operative interference should be tried. There is mostly a desire, not only on the part of the physician, but on the part of the patient, to give other and milder remedies a chance. If this waiting for the effects of medicines be protracted, much valuable time may have been lost. It is well that the inflammatory and more acute symptoms be first subdued. Hamilton Roe thought the fluid should not be left beyond the third week, as he believed that no real cure resulted if it were deferred until the fifth or sixth week; and Tuke of New York believes that re-expansion of the pulmonary substance may take place even at the end of between two and three months. There is, however, no occasion to wait such length of time when we see the patient from the setting in of the acute stage. But it often happens that cases go on for weeks before a decision is come to as to the operation. Absorption has been waited for, or, what not unfrequently occurs, the presence of the fluid has been overlooked. Sometimes it accumulates in an insidious manner, and I have known instances where effusion has long existed without any suspicion whatever of any collection in the pleural sac. I believe that no hard and fast rule can be laid down as to the period when the lung will re-expand; its expansion is dependent on many circumstances. When we know the fluid to be purulent, as may be ascertained by a grooved needle or the aspirator, there need be no hesitation in our resolve. It would be sheer folly to lose any time after such fact was demonstrable.

I have remarked that two fears have been entertained which have opposed the more general use of thoracentesis; and these have been the fear of syncope following the operation, and the fear of the admission of air into the pleuritic cavity. I have never known any danger attending the operation. Paul speaks of the perfect harmlessness of thoracentesis (*Bull. Gén. de Thérap.*, lxxxi, 83). Dr. Evans, in an elaborate article in vol. ii of *St. Thomas's Hospital Reports*, asserts that, out of eight hundred and twenty cases which he had collected, in two only did death follow the operation. Another writer declares there is no more risk in thoracentesis than in bloodletting. Anstie says, with modern instruments, there is no danger of wounding the viscera, and thus producing syncope, as it has been dreaded, by hæmorrhage.

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* Gubler (Adolphe): Des Paralysies dans leurs rapports avec les maladies aigues, et spécialement des paralysies asthéniques, diffuses, des convalescents. (*Archives Générales de Médecine*: 1860.)

† Fritz (E.): *Etude Clinique sur Divers Symptomes Spinaux observés dans la Fièvre Typhoide*, 8vo, pp. 186. Paris: 1864.

The evil consequences of the admission of air into this serous sac have been very unduly dwelt upon; nor do I believe that a moderate amount of air passing into the chest is followed by those deleterious effects which some have imagined. In the patient whom I saw in August last year, with Dr. Farrington of Penshurst, and in whom the purulent collection forced a spontaneous outlet through the bronchial tubes, air must necessarily have passed at once freely into the thorax, as pyopneumothorax supervened; but the patient improved immediately after the exit of the fluid. In other cases that I have known in which the same event occurred, the admission of air into the cavity seemed to do no harm. Numbers of cases of pneumothorax do well. Dr. Fuller (*St. George's Hospital Reports*, vol. v) says the admission of air into the pleural cavity is a fallacious dread. Again, he declares that all mechanical contrivances to exclude air are worthless; and he maintains that the admission of air is of no importance. Anstie asserts the almost impossibility of excluding air when the fluid is instrumentally drawn off. Trousseau quotes the opinion of M. Reybaud on this subject. The latter thus speaks on the point in question: "The introduction of air into the pleural cavity is an almost inevitable occurrence, and one, moreover, regarding which no anxiety need be entertained." We know that, in pyopneumothorax, the patients recover when constant and large quantities are admitted. Davies never saw the admission of air set up inflammation. Dr. F. Bird stated that, on the twenty occasions on which he had operated, air had been admitted; and that he had never noticed even uneasiness caused by it. Bergeret and Sutton contribute the same kind of testimony, and say air may be admitted without any evil effects. Though I fully coincide in the opinions of these authorities, yet, as it is so easy a thing to exclude air by placing the free end of a piece of gutta-percha tubing used with the trocar under water, I have generally done so. If air be not demonstrably harmful, there can be no advantage in letting it in when it can with such facility be in a great measure kept out.

It has been held in dispute, whether the chest ought or ought not to be emptied at the first tapping. So far as my own experience warrants the expression of an opinion, I believe it is well to take away as much fluid as possible at the first operation; nor have I ever observed any ill effects from so doing. Roe and others say the pleura may be emptied without danger. The fear of syncope being produced by the prop formed, as it were, by the effusion, being suddenly taken from the heart, is, I believe, more imaginary than real. In twenty-four cases operated upon by the last named physician, and in some of which pints of liquid were drawn off at one time, no tendency to syncope was observed. In cases in which the heart has been displaced beneath or to the right of the sternum, or when it has been pushed down towards the left hypochondrium, or it may be inwards and backwards, such dislocation, as I have already observed, cannot be effected without more or less twisting of the great vessels, and interference with free systolic and diastolic action; and fatal syncope is more to be dreaded when this vital organ is persistently pressed upon, than when it is assuming, or has quickly assumed, its normal position. I know of no instance in which sudden death followed tapping from such causes. Walshe says that, when thoracentesis is employed merely as a palliative in phthisis, the fluid may be drawn off by degrees. I cannot, however, see the advantage of this recommendation, as it is always desirable to discommode and harass the patient as little as possible. I have advocated the letting out of as much fluid as can be conveniently removed; but there is no need to be solicitous for the evacuation of the last drop, as such would in some instances give rise to a good deal of fatigue and distress. Again, there is always a certain quantity left in the cavity, which, when the case does well, is readily absorbed. It often happens, even when a moderate amount of liquid is removed, that the mechanical disturbance is very manifestly relieved, and that the absorbents then take on such activity of action as to accomplish the entire disappearance of the effusion. As Sir Thomas Watson remarks, it is very probable, when the serous membrane is stretched by its contents, that its natural absorbing power is much lessened. With the diminution of pleural tension, as Hughes and Cock long ago maintained, other remedies are rendered more operative. When the organism is relieved of an incubus of this kind; there seems to be a compensating energy instituted in functional action, just as we see, after paracentesis abdominis, and even after free puncturing of the legs in anasarca, how remedies will become effective, as, for instance, how efficiently diuretics will then act, after they have been long and fruitlessly tried.

Those conditions which may be regarded as the morbid states, and the positive and negative signs demanding the operation, may thus be concisely summarised.

1. In all cases in which inspection and the physical signs give evidence of a large quantity of fluid: when there are symptoms of compression of the lung, and there is manifest cardiac displacement.

2. When there are urgent dyspnœa, an irregular pulse, and threatening of orthopnœa.

3. When the affected side is smooth and rounded, and the intercostal spaces are effaced or protrude; when measurement proves bulging; when the dulness in the chest is complete, or demarcated, and absolute; when there is abolition of tactile fremitus; when there are bronchophonic voice, tubular breathing, and absence of breath-sound; when the patient can only lie on one side, or in diagonal position; and when there is the Hippocratic sign of succussion.

4. When the exploratory needle proves the fluid to be purulent.

5. If the heart be pushed from its normal situation, and the apex-beat be substernal or beyond the right sternal edge, or if it be thrust towards the left hypochondrium, or if it be lost; when it becomes presumptive that the organ has been driven inwards and backwards; and when on the one side the liver depends abnormally into the abdomen, and when on the other side the relaxed and down-pressed diaphragm so displaces the spleen that its free edge can be *felt*.

6. When half the thoracic cavity is filled, and a month or so shows no proof of absorption, the longer the delay the less are the chances of expansion.

7. In those exceptional cases of double pleurisy when both cavities become half filled with effusion, and dyspnœa shows the lung-space to be dangerously encroached upon.

8. In pulmonary phthisis, when the accumulation of serous or seropurulent secretion causes distress, and when the other lung assumes the symptoms of bronchitis or pneumonia, the operation should at once be performed.

9. In mechanical hydrothorax, it may be had recourse to, though with no object to cure, but with merely a view for a time to prolong life and to aid the action of medicinal remedies.

10. In children, whose chest-walls are thin, and in whom the white tissues are more developed and confer greater resiliency to the thoracic parietes, and whenever there are certain evidences of fluid, it should without delay be evacuated.

11. In hydropneumothorax, it may be generally with safety and benefit employed.

12. Pointing externally should never be waited for.

13. Under certain circumstances, repeated tappings are required.

Much has been said and written relative to the place and mode of *operation*. There was an ancient practice of perforating a rib, as revived by Reybaud, and also of producing an eschar by the potential or the actual cautery. It is never advisable to injure the rib, because caries or necrosis may follow. Indeed, in old standing empyema, when tubes have repeatedly been inserted, and the periosteal covering has been continually pressed upon, caries is not an uncommon result, despite of all the care which has been observed. The modern place of election is always at a costal interspace. In passing, it may be mentioned that the grave mistake has been made of puncturing the sound side, when air of course instantly rushed into the cavity, compressed the lung, and caused sudden death. Sheer carelessness, or utter ignorance of the physical signs, could alone give rise to such a catastrophe. It would be well never to depend on inspection and the obvious increase of size in one side, because, in empyema and in long standing effusion, there may be costal approximation and thrusting down of the diaphragm on the side of the disease, rendering the thorax smaller; and the unaffected cavity may have become distended by the increased volume of the compensating lung, as I have before pointed out. Percussion and auscultation will always rightly solve the question. At some parts, there may be adhesion of the pulmonary tissue. That part should be avoided; and, as Dr. Williams very justly remarks, the spot for the introduction of the trocar should be determined by reference to physical signs, and any place should be avoided where there is not characteristic and absolute dulness on percussion. Laennec, Townsend, Stokes, and others, prefer the fifth or sixth interspace in front of the digitations of the serratus magnus. If there should be pointing, such ought to be the place of opening if it be low down, but not otherwise. Some have said the puncture should be at the most depending part of the antero-lateral aspect of the chest. When in this line the instrument is thrust in below the sixth interspace, there is some chance of wounding the diaphragm; and when too low, the abdominal viscera may be pierced.

Bowditch says the best spot is between the ninth and tenth ribs, in a line let fall from the lower angle of the scapula. But this physician goes on to say that, in selecting the precise intercostal interspace at the back, he usually chooses one about an inch and a half higher than the line on a level with the lowest point at which the respiratory murmur can be heard in the healthy lung of the opposite pleural cavity; and he adds that he has even tapped in the axilla or in the breast. Sometimes œdema renders it difficult to fix on the spot for penetration. It is then desirable to carefully press with the pulps of the fingers until the ribs can be distinctly felt. Davies has given the opinion that in all cases an exploratory needle should first be passed. I have not, however, been in the habit of adhering to this precaution, because, in a nervous patient, the introduction of two sharp instruments might seem to give unnecessary pain. When there is not an absolute certainty of the presence of fluid, to first push in a grooved needle may be very desirable. I prefer the flattened trocar, to which is attached, at the free end, a piece of gutta-percha tubing which is to be carried under water. No instrumental contrivance is simpler and more effective. The fluid is thus generally drawn off quickly and completely. On four occasions, I have recommended the use of the aspirator, which is really but the return to an old practice of drawing off the fluid by a syringe; and it is as old as Scultetus. The objections which I have found to the aspirator are, the long time it takes to get away a large quantity of fluid, and the consequent fatigue which is given to the patient. In case No. 14, it was used by my colleague Mr. Marsack. The instrument became far less easily worked towards the end of the operation; and such was the fact which I noticed on two subsequent times of its employment. In No. 16, the withdrawal of the fluid took a long time, when Mr. Bishop operated; and the patient became a good deal fatigued. When he was a second time tapped, Mr. Bishop used the ordinary flattened cannula, when the result was far more satisfactory. I must confess I have not, like others, found its superiority over the simple trocar. When the trocar is used, Reybaud's plan, as recommended by Trousseau, may be adopted, by tying a piece of gold-beater's skin round the mouth of the cannula, so as to form a valve or curtain, which allows the fluid to pass out of, and prevents the air from passing into, the cavity. The skin should be firmly stretched by the index finger and thumb; and a longitudinal incision about six lines in length, coinciding with the intercostal space, should be first made. This facilitates the insertion of the trocar. Care should be taken that the stilette be sharp. A blunt instrument may push forward the pleura, thickened and rendered tough and tense by the union of false membrane, when the operator would be balked. It should be passed quickly, and as closely over the edge of the under rib as can conveniently be done without lacerating the periosteum; and the curve should be slightly upwards, when the opening becomes somewhat valvular. It should not be pushed in further than to fully clear the chest-wall; but, when the stilette is withdrawn, the cannula may be sent in deeper. A broad bandage should be applied round the lower part of the thorax, when the diaphragm would be pushed up to resume its normal position. The patient's trunk may be made to incline towards the operator, or sometimes the operation answers the best when the patient is placed in the recumbent position. The orifice should be at once closed by means of a piece of carbolic plaster. The operation may be repeated several times. Bowditch says he tapped one patient eight times, and a lady he tapped nine times in eight months. In empyema, even when absorption has gone on after the first operation, it is often well to tap again. When the fluid is purulent, the orifice may be kept open, and the injection of warm water may be had recourse to two or three times a week. I know one instance in which the chest was thus washed out for some time daily, and the patient made a full recovery. Radenbacher records the case of a boy who was tapped, and whose chest was twice daily washed out with warm water; and he made a full recovery (*Deutsche Archiv*, vol. ix, p. 240). The late Mr. Stanley of St. Bartholomew's told me he had, in these cases, seen the best effects from washing out the cavity with warm water. I cannot give any such experience of medicated injections as to speak with any authority. Weak solutions of iodine and Condy's fluid have been by some employed.

In children, paracentesis can, as the rule, be performed with much and immediate benefit. In these little patients, the diagnosis is easier; the lymphatic exudations less rapidly become organised, and absorption is more actively carried on, than in the adult. The flattened trocar, as before recommended, is the best instrument. In children, when the parietes are stretched with liquid, they are so thin as not to require the longitudinal incision through the skin. Again, in them it is most desirable to avoid unnecessary pain. Drainage-tubes, when had recourse to in children, sometimes set up a good deal of irritation. When the effusion is purulent, as it so frequently is in children, it is a good plan to employ a small silver tube like that used by Mr. Marsack in case No, 17. It need not be longer than to fairly clear the chest-wall, and care should be taken that the inner edge be perfectly smooth. The accident of its slipping in can be guarded against by the outer extremity ending in a button-like shield from six lines to an inch in diameter. Kussmaul recommends that, in these cases in a child, a small silver cannula should be kept in. He also advocates the injection of sulphate of soda and camomile-tea, to prevent the absorption of pus, which, he believes, gives rise to tubercle (*Deutsches Archiv für Klinische Medicin*, 4, 1868). Eyelet-holes for the introduction of a piece of tape should be made at two opposite edges of the shield. This little instrument can then be firmly fixed, and thus little or no irritation is transferred to the chest-wall. The orifice of the tube can be closed by means of a piece of lint and adhesive plaster. These being taken off, the chest can, by the child merely leaning towards the affected side, be relieved of the accumulated secretion every morning, as this practice was with such advantage adopted in Mr. Marsack's case. This fixed shield also admits of the chest being freely washed out with warm water. The water can be injected by an ordinary syringe, and it will run out again by merely inclining the trunk to the position which favours its exit. When the effusion is of recent formation, and serous, one operation will often suffice and, even if the whole of the fluid be not taken away, absorption will generally succeed with such activity as to be followed by speedy recovery.

A curious phenomenon, as the sequent of thoracentesis, was, during last year, much commented upon in France, and, indeed, it there led to some very animated discussions. In 1863, M. Pinault first pointed out the singular fact that not unfrequently *albuminous expectoration* quickly follows thoracentesis. MM. d'Espine, Woillez, Marrotte, Béhier, and Terrillon, have lately called attention to this question. The symptom, it is stated, may come on from ten minutes to an hour after the operation, and continue for several hours, or an entire day. There is said to be a correlation between the quantity expectorated and the mildness or gravity of the symptoms. In mild cases, the secretion is but in limited degree, but very abundant in the severe examples. The disturbance which it causes may be merely slight dyspnœa, or there may be distressing and acute dyspnœa, spasmodic cough, and fine subcrepitant *râles;* and, in fatal cases, the dyspnœa has been most urgent, the cough continuous and suffocating when asphyxia has supervened, and the accumulation of liquids has filled up the respiratory system. This albuminous product, it has been related, is yellowish, coagulates with nitric acid, while the expectoration is mere bronchorrhœa, and the microscope detects epithelial cells, and pus- and blood-corpuscles. The point of disputation is how and in what manner is this albuminous fluid produced. Perforation by the trocar, spontaneous perforation, reabsorption after the operation, and pulmonary congestion giving rise to transudation through the alveolar walls, have all been assigned as causes. In short, without citing arguments to rebut the first three theories, it may here be observed that the last named mode is held to be the most explanatory of the phenomenon. Œdema is the consequence of pulmonary congestion. When that condition has for a time continued, serous transudation then eventuates, in addition to bronchial mucus; when the lung has been for a long time compressed, and the liquid which has surrounded it and pressed upon it is suddenly removed, the atmospheric air by rushing into the vesicles irritates their mucous membrane and causes vascular excitement, and hence the sequents. Such is the explanation of certain of the disputants, and it would seem that such explanation is not wholly unfounded on physiological and pathological principles. Those who take this view maintain that the analogue is to be noticed in albuminous nephritis when the Malpighian capillary congestion becomes relieved by a serous transudation into the tubules. Dr. George Johnson, who last year referred to this subject in a clinical lecture, thinks another etiological explanation may be given of albuminous expectoration. He attributes the phenomena to absolute blood-stasis in the minute pulmonary vessels, especially in the pulmonary veins. I have before pointed out that coagula in the large pulmonary veins is a condition which takes place in a lung compressed by pleuritic effusion, more frequently than was formerly supposed. It is evident from the examples given, and the reasoning put forth by the French pathologists, that the irritant properties of the sudden ingress of atmospheric air is the most explicable cause of the congested capillaries, and the sequential event of the transudation of serosity. (*Mouvement Médical; Union Médical;* M. Woillez's *Treat. Respiratory Organs; Gazette des Hôpitaux;* BRITISH MEDICAL JOURNAL, October 1873.)

In conclusion, a word may be said relative to the operation, and the attempts at the operation, in certain of the foregoing examples. In case No. 6, the failure was attributable to wide-spread adhesion of the lung to the chest-wall. If the fluid could have been reached, the patient would doubtless have been relieved for a time, notwithstanding that the primary malady was tuberculisation. The large amount of serosity caused death by mechanical pressure. The anasarca was mainly due to visceral displacement, and, though the heart was not of itself diseased, the pericardium being filled with fluid, great interference was necessarily given to the normal action of a vital organ. In the other fatal case, No. 7, the operation was easily performed, and the benefit was immediate and decided. As the patient lived some days, her death which resulted, in an emaciated frame, from asthenia, could hardly with good grounds be attributed to thoracentesis. In case No. 11, the fruitless efforts to draw off the liquid were doubtless from long standing and extensive adhesions. Two punctures were made, but to continue plunging in the instrument when there was no exact knowledge as to the position of the heart, or when there became a great probability of wounding the lung, would have been unwarrantable. In No. 14, I am quite of opinion that the trocar and tube would have been more effective in the withdrawal of the fluid than the aspirator. The large amount of serosity and the immediate comfort and easier breathing which followed, were most satisfactory results. The operation in this man showed most conclusively how advantageously thoracentesis may be used as a palliative in pulmonary phthisis with effusion. In such complaint, paracentesis presents itself to our notice as one of the most decisive and effectual of remedial measures. In the little boy, No. 15, the operation was expeditious and beneficial. Occurring as the effusion did, as the completion with or sequel of one of the exanthems, it was pretty evident that the fluid would be purulent. In No. 16, the good results of the operation were more speedy and decided than in any other example of my own experience. The youth was gravely ill, extremely emaciated, and unquestionably in great peril. The outcome of the fluid was at once followed by amendment, and his recovery was absolute. In the little boy, No. 17, I have already expatiated on the advantageous employment of the small silver shield-tube.

ON THE EMPLOYMENT OF THORACENTESIS IN ACUTE PLEURITIC EFFUSION.[*]

By HENRY F. A. GOODRIDGE, M.D.,
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It is proposed in the following paper, first, to relate a case of acute pleurisy with effusion, in which, ordinary treatment failing, recourse was had to thoracentesis (strictly thoracocentesis); secondly, to offer some remarks on the value of this practice in acute pleuritic effusion generally; and, thirdly, to further illustrate the subject with a case in which ordinary treatment was successful. I shall venture to give the cases a little in detail, the object in view seeming to require this; and would premise that primary, and not at all secondary, pleurisy is here under consideration.

1. A schoolgirl, aged 13, accustomed to good health, felt quite well in the forenoon of July 3rd, 1873, and walked with ease a distance of between two and three miles. About 1 P.M., she was seized with pain in the left side. This gradually became more severe, and, although it did not much disturb her at night, was attended the following morning (July 4th) with loss of appetite and general disorder, so that she was brought at once to hospital for advice. It being now observed that her temperature was 101 degs., her pulse 120, and the left side of her chest nearly motionless, she was directed to become an in-patient, and was admitted as such in the course of the day.

July 5th.—The report was, that she slept well; the pain in the left side was less. On examination, the lower half of her left chest, posteriorly, was found to be dull on percussion, and yielded little or no vocal fremitus; the breathing here was very feeble; the voice at the angle of the scapula was ægophonic; the heart's beat was to the inner side of the left nipple. Her temperature was 99.4 degs. (rising to 100.6 degs. in the evening); her pulse was 138; her respirations were 42; she had no cough; she was somewhat pale in the face; her tongue had a white coat with prominent red papillæ; her bowels were opened twice in the twenty-four hours; her urine was high coloured, acid, of specific gravity 1,030, and presented a slight cloudiness on boiling and the addition of nitric acid. She was ordered to take four grains of mercury with chalk three times a day, and one ounce of the solution of acetate of ammonia mixture every six hours; also to have a diet of milk and beef-tea.

July 7th.[†] She had now no pain; she seemed to be able to lie on either side. The dulness was increased over the left chest, and accompanied with bronchial breathing; only the apex-region was free; under the clavicle, there was a distinct tubular percussion-note. Her temperature was 99.2 degs. (evening temperature 101.4 degs.); her pulse was 140, and her respirations 40; her tongue was cleaner; her bowels were inclined to be relaxed; her urine was scanty. She was ordered to omit the medicines, and to take the sixteenth of a grain of biniodide of mercury along with two grains of iodide of potassium and four minims of tincture of digitalis, in one ounce of infusion of cloves, every six hours; also to have her left back blistered with epispastic liquid and afterwards dressed with cotton-wool.

July 10th. Her urine was a little increased in quantity; her nostrils were inflated at each inspiration; the physical signs were much the same.

July 14th. She had not good sleep; she now lay continually on her left side. There was universal dulness, with absence of vocal fremitus over the left chest; a considerable amount, however, of bronchial breathing was audible; her heart was pushed over to the right side. Her temperature was 100.2 degs. (evening, 102.4 degs.); her pulse was 148, and her respirations 48.

July 15th. She had not much sleep again; her bowels were relaxed. Her left chest at the level of the nipple measured three-quarters of an inch more than her right, and was quite immobile; her heart's apex beat at the right nipple; the breathing of the right lung was much exaggerated. Her temperature was 100.2 degs.; her pulse was 144; her respirations were 48. It was now determined to resort to thoracentesis. Accordingly, at 1.30 P.M., the resident medical officer, Mr. Waller, introduced one of the fine trocars of a Dieulafoy's aspirator into the eighth intercostal space near the angle of the scapula, and, the syringe being attached, forty-five ounces of tolerably clear straw-coloured fluid were drawn off, which, in the course of half an hour, coagulated into a gelatinous mass. Resonance on percussion now reappeared at the upper part of the chest. The opening was instantly closed upon withdrawal of the cannula. The patient had a little troublesome cough during the process, but was calm and comfortable afterwards. At 9 P.M., she was lying on the right side; she had been sleeping on and off since the operation; had had more cough than before it was performed, but she did not expectorate; she was perspiring rather freely; her temperature was 103.8 degs.; her pulse 138; her respirations 54; her heart's beat was still on the right of sternum. She was ordered to continue the draught.

July 16th. She felt better; her cough was less; she had not expectorated; her temperature was 100.2 degs. (evening, 102 degs.); her pulse was 132, and her respirations were 36; her tongue was clean, and her appetite was returning. At the left apex, the stroke-sound was better, also the breath-sound; but in the infraspinous fossa, where, immediately after the tapping, fair pulmonary resonance had returned, there was more or less dulness; the heart's apex was about one inch and a half above and to the inner side of the right nipple. No friction-sound was detectable anywhere. She was ordered to continue the draught, and to take in addition, the same evening at bedtime, two grains of antimonial powder, with one and a half grains of sulphate of quinine, in the form of pill; and to have half-diet.

July 17th. She slept well, and seemed much better; she had no cough to speak of. There was tolerably good resonance over the uppermost region of the left chest, except in the axilla; the breathing was markedly bronchial about the level of the nipple, but was more open towards the apex; ægophony was present in the infraspinous fossa. Her temperature was 101.4 degs. (evening, 102.8 degs.); her pulse was 144, and her respirations 56.

July 18th. There was some amount of resonance on percussion as low as the angle of the scapula, and vocal fremitus was perceptible as far as the middle of that bone; but both were nearly absent in the axillary region. She was passing more urine, and otherwise progressing favourably.

July 20th. There was a decidedly better stroke-sound at the upper left chest, particularly behind, and the vocal fremitus extended to a lower level. Her temperature had averaged lately 100 degs. (evening, 102.2 degs.); her pulse was 140, and her respirations 48; her bowels were still disposed to be relaxed. She was ordered to continue the draught, but without the digitalis, and to take two grains of sulphate of quinia in pill night and morning, and one teaspoonful of cod-liver oil twice a day after meals.

July 22nd. Vocal fremitus was distinct now in the axilla, and generally in the upper half of the left chest; the dulness was not quite so intense at the base; the voice was ægophonic about the angle of the scapula. Her temperature had fallen to 99.8 degs. (evening, 101.2 degs.)

July 24th. There was increased area of vocal fremitus, and less extent of bronchial breathing; the heart was gradually returning to its normal situation.

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[*] Read before the Bath and Bristol Branch.

[†] The writer's charge of the case commenced at this date.

July 25th. Slight friction-sound was present at the angle of the scapula, in the axilla, and just above the nipple. The left chest now measured less than the right by a quarter of an inch. Her temperature was 98.4 (evening, 100.6); her pulse was 116; her respirations 36; her appetite was good. She was ordered to continue the medicines, and to have the iodide of potassium with soap liniment rubbed into the left chest night and morning.

July 28th. There was further extension of resonance on percussion and of vocal fremitus; the bronchial type of breathing had nearly disappeared, pulmonary vesicular murmur taking its place; some grazing friction-sound was still present about the angle of the scapula; the stomach-note was high. Her temperature was almost normal. She was ordered to omit the draught and pill, and to take one ounce of the mixture of citrate of iron and quinine three times a day, continuing the cod-liver oil and the use of the liniment.

August 1st. Vocal fremitus could be felt almost to the base; there was now no friction-sound nor ægophony; the heart's apex beat at the left nipple.

August 5th. There was good percussion resonance all over the left chest, except at the base, where it was still impaired; vocal fremitus was present more or less everywhere; the inspiratory murmur was weak at the base; the left chest measured less than the right by five-eighths of an inch.

August 9th. She was gaining flesh and resuming her healthy looks.

August 22nd. She was discharged recovered. She was detained some ten days, on account of toothache with gum-boil, and also for observation.

Here, then, was a case of acute unilateral pleurisy, coming under treatment on the third day of attack, but advancing, in spite of the ordinary remedies, to very copious liquid effusion on the twelfth day, when, thoracentesis being performed, and forty-five ounces of fluid removed, absorption became active, convalescence ensued, and complete recovery* was attained by about the fortieth day.

2. The foregoing is only another to add to an already pretty numerous list of cases that have been recorded within the last few years, the manifest teaching of which is, that thoracentesis should be employed in the treatment of acute pleurisy much more frequently than heretofore. It is unnecessary to observe that, until a very recent period, this measure was universally regarded as a *dernier ressort*, appropriate only to a few exceptional conditions, as, *e.g.*, when asphyxia is impending. There seems to have been a tendency, on the one hand, to overrate the efficacy of medication, and, on the other, to view tapping the chest as a dangerous expedient to be avoided, if possible; while, not altogether unsanctioned by authority, a notion has spread abroad that acute primary pleurisy is a disease of but little gravity. It cannot be doubted by any unprejudiced person that very good results (*quoad* the effusion, that is) have frequently followed the use, internally or externally, or both, of the preparations of mercury, iodine, and other medicines, that directly or indirectly promote absorption, conjoined or not with vesication to the affected side. But it is equally true that not seldom these measures fail, the case passing on to the chronic condition, empyema, or, more correctly, pyothorax, with its attendant aggravations, where indeed, by common consent, thoracentesis is the only resource. Moreover, the operation of these medicaments is gradual and slow, and, to accomplish their purpose, considerable time is required, which in the case of large effusions is an important point; for, in respect to the gravity of the disease, it cannot be too strongly insisted on that a patient with his pleura distended with fluid, and with his lung in the same ratio compressed, and his heart dislocated, is in a state of serious jeopardy. Sudden asphyxia or fatal syncope is not at all an imaginary event under such circumstances. Thus, as an instance of the latter, which, many years ago, I witnessed, a strong healthy man, in the second week of an attack of pleurisy, with his pleura full of serous effusion (between three and four quarts, determined *post mortem*), and at the time under mercurial and other treatment, while being assisted to stool, suddenly fell back in the attendant's arms and expired. Trousseau and others have recorded similar instances. But there is another view of the case. As has been well pointed out by Dr. George Johnson (BRITISH MEDICAL JOURNAL, October 25th, 1873), pleural distension produced in this way is in itself a material impediment to absorption by the obstruction it causes to the circulation. Hence no doubt some, though obviously not all, of the failures in therapeutic treatment. And, again, where the quantity of fluid is less copious, a correct appreciation of the pathological changes that must ensue whenever a pleuritic effusion stagnates for more than a very limited period, will dispose one to concur in the remark of Niemeyer (*Text-book of Practical Medicine*, American translation, vol. i, p. 273), that "every additional day during which the lung is exposed to pressure, and time is allowed for cells to multiply in the exudation, the chances of complete recovery diminish, and the danger of a fatal termination increases"; and yet, further, as no practical man can believe in the unalloyed good of a prolonged course of mercury and iodine to a patient, unless syphilitic, it may be observed that every additional day of this medication that can be dispensed with is so much gain on the side of health and vigour. Any measure, then, which will expedite the removal of the liquid effusion must have a powerful claim to adoption, unless indeed it should happen that it carries with it an objection of its own sufficient to outweigh this advantage. And just so has it been with thoracentesis. The risk of air getting into the pleural cavity, and setting up mischief there, has been a constant bugbear in the way of its employment, and, it cannot be doubted, has prevented its use in numberless cases where it would have been of the utmost value. But, with the progress of modern invention, this objection (whether in any degree fanciful or not) can no longer apply. The improved instruments, in particular the pneumatic aspirator, furnish very complete security against the entrance of air; and, in reference to this and other minor dangers that have been apprehended, it may be now fearlessly asserted, permit the operation being conducted so as to be perfectly harmless. The number of those who, their experience bearing witness to the safety of thoracentesis, have advocated it as a method of treatment in acute pleurisy, and have published cases accordingly, is considerable. Dr. Bowditch of Boston, U. S., it need not be said, is pre-eminent among them. He, it seems, has operated some two hundred and fifty times (acute and chronic cases together) without once seeing any evil, or even any very distressing symptoms result therefrom. He thinks, indeed, that we may operate in any case where the quantity of fluid is obviously so large as to seriously obstruct the greater part of a lung, as, *e.g.*, when the level of the fluid seems to rise to the middle of the back, and, in so doing, oppresses the respiratory murmur in the entire organ (*Practitioner*, No. 58). M. Paul, a disciple of Trousseau, himself the acknowledged originator of this method of treatment, insists upon the value of thoracentesis in cases both of moderate and of copious effusion (*Bulletin Général de Thérapeutique*, tome lxxxi). But I mention his name principally on account of an observation which he has made, and which he proposes to utilise as an aid to prognosis. He states that, whenever the fluid readily coagulates after its exit, the effusion will not recur, or, if it do recur, will do so in so small a quantity as to be soon reabsorbed. The case that has been narrated is in accord with this. There did appear certainly to be some renewed effusion on the day following the operation, but it clearly was soon reabsorbed. The explanation perhaps is, that, whilst the liquid effusion remains at once so rich in fibrine and so poor in pus as to coagulate thus, false membranous deposits on the pleura have not yet occurred to such an extent and thickness as to present any insuperable obstacle to absorption, on the one hand, or to expansion of the lung, on the other. Referring once again to the example given, it may be observed that, although it was found convenient to remove forty-five ounces of the effusion, it was by no means sought to extract the whole of it; the object being, as generally recognised, not so much this, which possibly might be attended with harm, as to relieve mechanical tension and remove pressure, and thereby give free scope to the absorbent processes; and, with this view, the continuance of the other remedies is not only consistent, but appropriate. To carry out the illustration of the subject, a second case may now be cited in several respects very parallel to the first, and equally successful as to the ultimate removal of the local disorder, but treated upon the ordinary and non-tapping plan. It is selected from my hospital cases, and dates, to explain an omission, from before the era of clinical thermometry.

3. A boy, aged 12 years, was admitted on September 1st with pain in his left side, dry hacking cough, loss of appetite, and weakness, all of a fortnight's standing. He was daily getting worse, and now had become thin and pale, and had much dyspnœa on exertion. His left chest was found to be motionless, and to measure at the level of the nipple more than the right; it was completely dull on percussion both behind and in front, the dulness extending here across the middle line, and it yielded no vocal fremitus. Some weak respiration was heard in most parts of it, of blowing type. His heart's apex beat half an inch below, and rather to the outside of, the right nipple, and his liver projected in the epigastrium. He lay continually on his left side. His pulse was 100, very small and weak, and his respirations 60 in the minute. His skin was hot, his tongue furred, his bowels regular, his urine scanty. He was ordered to take two grains of calomel, with the eighth of a grain of opium, in the form of a pill, every second hour, and to have a large blister applied to his left back, to be dressed with mercurial ointment; and to have milk and beef-tea for his diet.

September 2nd. He had a very restless night, with delirium; but, at the visit, said he had less pain and felt better. The blister had risen well. His pulse was 108, and his respirations 36.

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* This expression is used, of course, within the limits imposed by pathology; the permanent adhesion in these cases affords proof that anatomically the *status quo ante* is never regained.

September 3rd. He had a better night; the mercury was beginning to affect his gums. He was ordered to take the pill every fourth hour only, and the opium in it to be increased to a quarter of a grain.

September 5th. He was feeling better; his mouth was distinctly, but not unduly, under the influence of the mercury; as yet, however, there was no manifest reduction of the effusion. He was ordered to take the pill twice a day only.

September 6th. He could now lie on his right side. There was a decided return of resonance on percussion over the left chest behind, with increased amount of respiration audible. He was ordered to omit the calomel and opium, and to take three grains of blue pill, with one grain of powder of squill and half a grain of powder of digitalis, in the form of pill, twice a day.

September 8th. Resonance on percussion was returning beneath the left clavicle and downwards in front; the heart was beginning to recede; the epigastrium was flaccid. He was ordered to omit the pill, and to take fifteen minims of the compound tincture of iodine in one ounce of water three times a day. The following day, he was put upon half-diet.

September 13th. He was progressing very favourably. Resonance on percussion was returning generally over the left chest, with vocal fremitus in the upper portion; a grazing friction-sound was observed in the infra-axillary region when the patient lay upon his right side; the voice was ægophonic about the angle of the scapula; the heart's apex was under the sternum. His pulse was 88; his respirations 28; he had no pain nor cough; his gums had recovered from the effects of the mercury; his tongue was clean and moist; his appetite was good. He was ordered to omit the draught, and to take five grains of iodide of potassium in one ounce of decoction of bark three times a day.

September 17th. He was still making good progress, and was now to have meat every day.

September 21st. The iodide of potassium draught was exchanged for the syrup of the iodide of iron, one teaspoonful three times a day; he was also ordered to have another blister, to be applied to the left base.

October 5th. His convalescence had continued uninterrupted. The upper left chest had regained pretty completely its normal stroke-sound, and there was only a trifling deficiency of same inferiorly; the vocal fremitus was more or less everywhere present; a little weakness of respiration remained towards the base, but distinct vesicular murmur was audible above; the heart's apex was felt as near as possible to the left nipple; his left chest at this level now measured one inch less than his right. The following day (October 6th), the patient was discharged recovered, being the thirty-sixth of his stay in hospital and the fiftieth of his attack.

Satisfactory as was the issue of this case, in presence of the considerations before adduced, the comparative disadvantages of its treatment can hardly be overlooked. I will just mention them in conclusion.

1. The uncertainty of success, which uncertainty, it is maintained, cannot, in anything like equal degree, if at all, be predicated of thoracentesis practised with due precautions, and with the improved instruments; practised, in short, as it now is.

2. The prolongation of the period of danger here represented by the four or five days following the admission of the patient. Sudden death was then a liability, and the youth of the subject would afford no adequate protection against it.

3. The length of time under treatment, and the comparative slowness of convalescence.

CASE OF EMPYEMA TREATED BY THORACENTESIS.

By WILLIAM DATE, M.R.C.S.Eng., Crewkerne.

J. C., aged 29, a strong healthy-looking agricultural labourer, had never had a day's serious illness in his life. On May 25th, while at work, he was seized with shivering, faintness, etc., which proved to be the commencement of an attack of acute right pneumonia. This followed the typical course, with much pyrexia, rusty sputa, etc. About the eighth day, the fever abated, and he appeared about to recover; but the improvement did not go on; the rate of respiration continued above 36, and the pulse about 100. On examining the chest to discover the cause of this check, I found that the right pleura was about half full of fluid. (It is unnecessary to give detailed notes of this part of the case. Suffice it to say that he was treated with blisters, diuretics, and iron; and that the effusion gradually increased.)

June 26th. He had lost flesh since the commencement of his illness, and felt weak. Pulse 110; respirations 45; temperature 102 deg. The cough was at times troublesome; he expectorated a whitish frothy mucus. There was no acute pain. There was complete dulness on percussion all over the right half of the chest, except just below the clavicle in front and between the spine and the scapula behind. Over this area of dulness, the breath and voice sounds were extinguished, and there was no vocal fremitus. Liver-dulness extended nearly as low as the umbilicus. The heart's impulse could be felt half an inch to the left of a line dropped perpendicularly from the nipple. Measurement an inch below the nipples gave: right side, 18¼ inches; left side, 17½ inches. There was not much bulging of the intercostal spaces. As the man was becoming worse in spite of treatment, I tapped his chest to-day with the aspirator (Weiss'), and drew off about ten ounces of greenish pus. I used the small needle first; but it became obstructed, and the pus would not flow. I then substituted the large needle (No. 4), but even this became blocked by flakes of lymph. He complained very much of the pain caused by withdrawing and reinserting the needle, and I desisted. Even with this small quantity withdrawn, he expressed himself as being more comfortable.

July 2nd. Since the operation, he had been worse. The breathing had gradually become more hurried, with frequent attacks of dyspnœa. He had lost flesh and strength rapidly. The dulness over the right chest was now complete; breathing was only heard faintly close to the spine (transmitted through the spine from the left lung?). Breathing over the left lung was puerile, with slight mucous *râles*. The right side now measured 19¼ inches, and the intercostal spaces bulged considerably; the left side, 17½ inches. The liver was as low as the umbilicus. The heart's impulse was two inches to the left of the nipple-line. Pulse 131; respirations 46; temperature 101.8 deg. I tapped again with the large needle, and drew off six pints of pus free from fœtor. The same difficulty as before was experienced from the needle becoming obstructed; but this time I adopted a plan to avoid the necessity of withdrawing the needle. I removed the tube from the exhausted bottle, and plunged the end into a basin of warm water, keeping the sides of the India-rubber tube squeezed tightly together, to prevent the entrance of air. Under water, this end was connected with a Higginson's syringe, from which all air had been previously pumped. Two or three syringefuls of water thrown into the chest sufficed to clear the needle, which was again attached to the aspirator with the same precautions against the admission of air. This proceeding was required three times during the operation.

July 4th. He seemed better since the tapping, said he felt "slacker", and had been able to take more food. Pulse 120; respirations 38; temperature 99.7 deg. Dulness behind now extended up to the angle of the scapula; in front, up to the right nipple. The lower edge of the liver was three inches higher. The heart's impulse was immediately below the left nipple. The breath and voice sounds could be heard above the dull area in a muffled manner, with mucous *râles*. The measurement of the right chest was 18 inches; of the left chest, 17½ inches.

July 9th. He was worse since last report, and lost flesh and strength. Fluid had accumulated again, although not quite to the previous extent. The dull area, with absence of breath and voice sounds and vocal fremitus, extended now up to the spine of the scapula. The heart's impulse was half an inch to the left of the nipple-line. Pulse 143; respirations 47; temperature 100.4 deg. Measurement gave: right chest 18½ inches; left chest, 17¼ inches. At his own urgent request, he was again tapped to-day, and about five pints of fœtid pus were drawn off by the aspirator. Three pints of solution of carbolic acid in water (1 in 100) were injected through the needle, and withdrawn, all but half a pint, by the aspirator.

July 16th. The subjective symptoms had been much relieved by the tapping, and there was great improvement in the physical signs. He slept well and felt comfortable. The cough, previously troublesome, was relieved. The right chest now was resonant everywhere except about the lower fourth, although the percussion-note was not so clear as on the left side. The breath and voice sounds corresponded to the area of dulness; that is to say, they could be heard over the upper part of the chest, gradually becoming fainter towards the lower fourth of the chest, and there inaudible. They were nowhere so clear as over the left side. The heart beat an inch to the right of the nipple-line. The breathing over the left lung was puerile, with rhonchus under the clavicle. Pulse 140; respirations 37; temperature 101 deg. Measurement gave: right chest, 17½ inches; left chest, 17⅕ inches.

July 18th. Notwithstanding the improvement in some of the symptoms, he continued to grow weaker and weaker, and during the last twenty-four hours had been evidently sinking from exhaustion. Just after midnight, while he was vomiting, he suddenly fell back in bed, and died in a few minutes.

REMARKS.—Cases of empyema are among the most difficult and unsatisfactory which come under the notice of the practitioner. In spite of the most skilful treatment, a large proportion of them prove fatal. This case is no exception; but failures are often more instructive than successes, and there are some points in the history of this which make it worth adding to the general stock of professional experience.

The first time I tapped this patient, I did not expect to see pus flow into the aspirator. He was robust, well made and well fed, and was altogether an exceedingly favourable specimen of an agricultural labourer. He was very temperate, and had never had a day's illness in his life. There was nothing, in fact, to lead one to anticipate anything more than an ordinary pleuritic effusion. The aspirator used was Weiss's, and had the disadvantage of not presenting any means of clearing the needle by reversing the current. It was necessary, therefore, either to withdraw the needle each time that it became obstructed, or to inject fluid through it in order to drive back the obstruction. To do the first caused the patient much pain, and the second of these courses was adopted. Notwithstanding that every precaution was taken against the admission of air, the pus became after this very offensive. Possibly the air dissolved in the water injected might be sufficient to account for the change. The relief afforded by each tapping was most marked, and the patient himself always begged to have the operation repeated. After the injection of the carbolic solution, the formation of pus was evidently checked. So far as the empyema was concerned, the treatment was not unsuccessful. Why, notwithstanding this, the man continued to sink, I cannot say. Probably there was deposition of tubercle going on in the pneumonic lung. Unfortunately, no *post mortem* examination could be obtained to clear up this doubt.

CASE OF PARACENTESIS THORACIS; WITH REMARKS,

By D. M. WILLIAMS, L.K.Q.C.P.I., etc.,
Physician to the Liverpool Hospital for Consumption and Diseases of the Chest.

THE following case is instructive, as showing the value of a free incision into the pleural cavity in a severe case of empyema where the wound made by the trocar in tapping was ultimately found insufficient to allow the contents to escape freely, much less to permit other substances mentioned below to pass; while these would have acted as foreign bodies in the pleural cavity, keeping up suppuration, which would have destroyed the patient by hectic. No means existed of ascertaining their presence beforehand; but, being dissatisfied with the progress of the case, I adopted another plan, and, fortunately, with the best results. There was nothing exceptional in the medical treatment.

Mr. D., aged 58, married, dyspeptic, of nervous temperament, whose brother died of phthisis "brought on by a cold", but whose father and mother are still in good health, was on March 7th suddenly seized with such severe pain in the chest and left side, with palpitation of the heart, that a practitioner considered the case one of angina, and gave stimulants and opium freely with great relief. In a few hours, the excitement subsided, and a sharp attack of pleurisy was easily diagnosed. The following will give a fair history of the first week of illness (up to March 14th). The pulse ranged from 100 to 120; the temperature, 100.4 to 102 deg.; the respirations were not over 30 per minute. The left side was dull to the clavicle. The apex-beat of the heart was close to the left side of the sternum. He perspired profusely. His cough was troublesome; and expectoration scanty, white, glairy, with a little yellow mucus.—March 16th. Pulse 114; temperature 102 deg.; respirations 30. He was lying easily. The bowels were moved twice. He was perspiring profusely.—March 17th. Pulse 120; respirations 27; temperature 101.3 deg. He was perspiring still. The bowels were not moved. The apex-beat of the heart was on the right side of the sternum. His appetite was fairly good.—March 18th. Pulse 110; temperature 102.1 deg.; respirations 30. The apex-beat was on the right side of the sternum. Perspiration was profuse. The bowels were moved twice. Dr. John Cameron met me in consultation. We agreed to continue the diuretics, etc.—March 20th. The bowels were moved twice; there was blood in the stools. He passed a pint and a half of urine. A blister was applied to the side.—March 21st. He had a rigor this morning at five o'clock, and perspired profusely since. Pulse 120, feeble; respirations 30. The bowels were moved twice.—March 24th. He had another rigor this morning. The bowels were purged four times daily since the 21st. He perspired profusely. The abdomen was tympanitic. Pulse 120; respirations 30. The expectoration was scanty, free from odour, and of the same colour. He took food moderately well. Stimulants and opium were freely given.—March 25th. Pulse 120, feeble; respirations 30. The tongue (which had been furred throughout) was now covered with aphthous ulcers. The bowels had been purged three times. The abdomen was tympanitic. The cough and expectoration were the same. He was restless at night, with slight delirium.—March 27th. Dr. Cameron met me again in consultation; and, with his assistance and that of my partner Dr. Crookshank, paracentesis thoracis was performed, and 108 ounces of pus removed, which was so offensive that the door and windows of the room had to be thrown open. Fortunately, we were using the aspirator, and could convey the fluid into a basin containing a solution of carbolic acid; yet it needed, as was remarked, a pathological nose to bear the smell with indifference. The patient bore the operation very well, and expressed himself relieved. Pulse 100, fuller. Opium, ammonia, brandy, etc., were given.—March 28th. He had had a moderately good night. The bowels were moved twice. Everything else was the same. At 9 P.M., pulse 100; respirations 32; temperature 101.2 deg. The bowels had been moved once. The cough and expectoration were the same.—March 30th. Pulse 96; respirations 28; temperature 101 deg. The tongue was nearly healed. The bowels had been moved four times. He passed three pints of urine.—April 1st. He had a restless night, and did not feel so well. Pulse 108; respirations 28; temperature 101.2 deg. He passed three pints of urine.—April 2nd. I removed with an ordinary trocar and cannula not less than fifty ounces of the same offensive pus, and introduced a Chassaignac's tube, covering all with a poultice.—April 3rd. His cough was very troublesome from the time he was tapped until 2 A.M. The expectoration was still colourless and odourless. Pulse 110; respirations 28; temperature 100 deg.; tongue clean; urine abundant.—April 6th. He complained that the tube hurt him; and, as but little, if any, matter came through it, I removed it, and injected a weak solution of carbolic acid into the pleural cavity, alternately with sulphurous acid, every night and morning.—April 9th. The discharge was now profuse, saturating poultice and bed-linen; and, as the odour was the same, the poor fellow suffered greatly from this discomfort. A large soft sponge, squeezed out of hot water and covered with gutta percha, was found much more comfortable than the poultice, and retained more of the pus. Pulse 130; respirations 28; temperature 101.1 deg.; bowels purged four times. He took food freely, with stimulants, opium, and quinine.—April 15th. The bowels were still purged from four to six times daily. Pulse 120; respirations 24. The side discharged freely, but the wound was contracting. The smell was still very offensive.—April 17th. As it was evident that something more must be done, I introduced a probe-pointed bistoury, and made an incision one and a half inches long backward from the abdomen, giving exit to a quantity of offensive pus; and twice daily afterwards I washed the pleural cavity with a weak solution of sulphurous acid (which acted much better than the carbolic acid), using from twenty to thirty ounces at each washing; and on two occasions a large piece of substance was removed, probably coagulated lymph or coagulated blood, horribly offensive.—April 24th. Laudable pus escaped on to the sponge for the first time.—April 28th. Water injected into the pleural cavity returned colourless. The injections were therefore stopped, and the wound allowed to close.—April 30th. I removed him to Waterloo (a quiet place on the sea-shore, a few miles from Liverpool), and dismissed him cured on June 1st, with the heart returned to its normal site, and with a fair amount of respiration in the upper half of the side.

I wish to draw attention to the unusual severity of this case, as pleurisy in private practice does not generally give rise to much anxiety. In time, with due care and patience, the fluid is absorbed, and all ends well. I know that early tapping with the aspirator is recommended even when we are morally certain the fluid is only serum; but I would be slow to adopt such a course, believing that the fluid will reaccumulate, and probably become purulent. In my case, it will be observed, surgical interference was demanded, because of the remarkable constitutional disturbance; and this within three weeks of the attack. Dr. Cameron was deeply impressed with the typhoid character of the symptoms on the day of the operation; viz., the low delirium, sleeplessness, diarrhœa, and tympanitic abdomen, aphthous tongue, and profuse perspiration, all due, as the result proved, to the presence of fœtid pus in the pleural cavity, as the tongue healed rapidly after the tapping, and the perspiration, diarrhœa, and tympanitis abated, but gave trouble subsequently; and the urine, which had been scanty, became abundant.

Another point of interest is the fœtor of the pus on the occasion of the *first* tapping, seeing that there was no fistulous communication between the lung and pleural cavity. Must we presume the presence of air essential to this alteration in the pus? If so, did it pass by endosmose through the unbroken tissue? or may chemical decomposition take place in a warm shut sac without the presence of air? The rapid improvement after the incision was most gratifying, and would encourage me to adopt a similar course earlier for the future.

THE PHYSIOLOGICAL AND CHEMICAL ACTIONS OF ALCOHOL.

By JAMES ROSS, M.D., Waterfoot, near Manchester.

I desire to make a few remarks upon Mr. Lucas's paper on the Physiological and Chemical Actions of Alcohol, which appeared in the Journal for November 14th. Passing over such statements as that, because alcohol "flushes the face" and "reddens the ears", this is evidence of stimulation, and that it "warms the body generally", I come at once to the main point he wishes to inculcate. He says:—"The double action of alcohol as a stimulant and narcotic is against reason." I would ask, Whose reason? It may be against Mr. Lucas's reason; but this is because his reason has not become adapted to the facts. In another place, he says that, "to adopt Dr. Anstie's theory, and to say that alcohol is a stimulant in small doses and a narcotic in large, is to assert an apparent contradiction". This, however, is not much to the point, since an apparent frequently turns out not to be a real contradiction; nor is Mr. Lucas any nearer the truth when he says that "it is only natural to infer that, if a small dose stimulate, a large dose must stimulate to a still greater extent", since the most natural inference frequently turns out to be the wrong one. To adopt an illustration of which I have availed myself elsewhere, let me imagine that a person sees a boy's kite falling to the ground, and that, although he is conversant with the general properties of matter, he is thoroughly unacquainted with the special properties of the kite. He will know that it is falling to the ground by the force of gravity, and it is only natural for him to think that, if he will pull the string attached, this will increase the downward tendency and accelerate the fall. But this natural conclusion may turn out to be the wrong conclusion, since it is quite possible that the kite will make a turn and begin to ascend. He pulls somewhat more strongly, and may find that the kite, instead of descending, continues to ascend more steadily and quicker than before; and now the natural conclusion is, that the more he pulls the more rapidly will the kite ascend. Once more, the natural inference is the wrong one. The kite makes another turn, and begins to descend. It is quite unnecessary for me to enter upon an explanation of these facts; my main object is to show that, in the case of the kite, the most opposite effects are produced by slight quantitative variations of one and the same cause; namely, the pull on the string attached. If I say, then, that a small pull in a certain direction on the string attached to a kite will make it ascend, while a strong pull in the same direction will make it descend, are these statements contradictory? Not at all. They are mere expressions of observed facts which cannot be denied, and yet they involve as much of a contradiction as the statements that a small dose of alcohol stimulates, while a large dose narcotises. If Mr. Lucas had said that alcohol always tends to stimulate, instead of saying that it is "a pure stimulant", the only criticism I would have to make respecting the assertion is, that it is one made by others long before him. The pull on the string attached to the kite always tends to draw it to the ground, and this tendency is exerted even when the kite ascends; and it is perfectly possible that the tendency of alcohol is always to stimulate, even when narcotism is produced. The facts can, however, be viewed from another stand-point. It may be said that alcohol always tends to narcotise, and its stimulant action may be regarded as an indirect result of the reaction of the tissues acted upon, just as the pull on the string attached to the kite always tends to draw it to the ground, while its ascent is an indirect result of the reaction of the kite to its environment. To sum up: when the late Dr. Anstie said that alcohol in small doses stimulates, and in large doses produces narcosis, he gave expression to observed facts, the truth of which cannot be doubted, whatever may be our interpretation of them; and, when it is said that alcohol always tends to stimulate, this introduces us to a very plausible hypothesis to account for these facts; while the opposite, though by no means the contradictory, assertion, that it always tends to narcotise, can also be defended as a plausible hypothesis; but the assertion that alcohol is a pure stimulant cannot be defended, and certainly has not been defended by any valid arguments whatever. Mr. Lucas himself speaks of a patient who died utterly exhausted from alcoholic overstimulation; and it is my opinion that he will find in this exhaustion of nervous power a more ready explanation of the narcotic action of alcohol than the complicated one he adopts. His own hypothesis is not only not defended by one single plausible argument, but it is utterly discredited by the experiments of Bernard, who has shown that relatively large quantities of carbonic acid can be injected into the veins of animals without producing any appreciable effect. Mr. Lucas's theory of nervous action, and the diagram illustrative of it, are certainly original; but I do not suppose he will find many who will adopt the one or rest satisfied with the other.

CLINICAL MEMORANDA.

SPASM OF THE DIAPHRAGM.

Some few months ago, a saddler consulted me for what he called "a catch in his breath". He described it as a sudden drawing in of his breath, coming on any time, even waking him out of sleep; lasting a shorter or longer period without giving pain, and going off again, leaving him rather sore. He said, in every other way, he was as well as he could wish to be. I advised him to avoid all work attended with pressure upon the sternum, and gave him a belladonna mixture; and, in a day or two, he said he was well. On November 2nd, he sent for his old mixture, and, on the 4th, he came to see me. On my entering, his respiration was very quick, and at each inspiration there was a noise very like that made by a bellows with its valve out of order. His left hand was pressed against the side, and he was writhing about like one in pain. I let him inhale a little chloroform, which restored normal respiration, and I gave him a mixture, with large doses of bromide of potassium to take between the attacks, as well as one containing spirits of chloroform, belladonna, and camphor, to take when an attack threatened. On the 5th, he came again worse than before. I again administered chloroform, which relieved for a while, but was followed by an attack, in which perspiration stood in drops on his brow, whilst the breathing reminded one of a locomotive engine at full speed. I gave him a full dose of opium, which quieted the disorder down to an occasional sob. At night, I gave him a subcutaneous injection of half a grain of morphia, and repeated it three times the following day, with the effect of keeping off a bad attack, causing remarkable irritation of the skin about the punctures, and no drowsiness. On the 7th, I gave him a morphia-draught to take, if necessary, and two grains of valerianate of zinc every hour. From this time, he improved considerably, having no attack for several days, whilst gradually discontinuing his valerianate of zinc mixture. On the 23rd, it returned, and he is now under treatment, about which I shall be happy to receive suggestions. I looked upon the case as spasm of the diaphragm, and sought for indications to treatment in the communications of the phrenic, seeing that it seemed most probable the irritation was not centric; but I failed to find them. My patient tells me this is the third time he has suffered from these attacks, the first being when he was serving his apprenticeship to the business he follows.

S. Wilson Hope, Petworth, Sussex.

CASES OF ILLNESS FROM DRINKING MILK TAINTED WITH SEWER-GASES.

The following cases, lately under my care, are interesting on account of their presumed cause. They occurred in a house of which the water-supply is unexceptionable, the situation most healthy, and the drains had been within the last three years relaid. This was believed to have been most carefully done; but, as will be seen, an old drain had been overlooked. The soil-pipes, etc., are well ventilated. On August 21st, one of the children in the house was seized with rigors, very high temperature, sickness, and abdominal pains; and, after only a few days' illness, was restored to almost her usual health. Within a few days, the infant was attacked with sickness and obstinate diarrhœa. As this continued for a few days in spite of remedies, I suspected that one of the cows might be ill (of which, however, there was no evidence), and requested that some of the milk from one cow should be taken straight to the nursery for the infant's use, so as to prevent any admixture with unwholesome milk; and from that time there was steady recovery. On September 19th, an elder child fell ill with what proved to be enteric fever, and of course a cause was at once sought for. It was then found that a bad smell had been for a long time perceived in the dairy by the servants; that several people had noticed that milk which had been all night in the dairy had an offensive smell. The cause of this was easily discovered. An open grating in the area outside allowed the washings from the dairy-floor to enter a surface-water drain; but this drain had formerly communicated with the house-cesspool, and it was found that the communicating drain had never been properly cut off. The door of the dairy opened into the warmer house, and the window into the area. There was also an opening on the floor-line into the area close to the grating. Sewer-gases, therefore, had free passage into the area, and were sucked through the dairy whenever the door was opened. When we consider—1. That no other cause for the fever could be found; 2. That three children were attacked about the same time with symptoms which this cause might explain; 3. That none of them had been away from home or improperly dieted; and 4. That the infant's recovery dated from the time that its food ceased to pass through the dairy—we may, I think, fairly conclude that the *fons et origo mali* was in each case the tainted milk. A. R. Graham, M.B., Weybridge.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

WESTMINSTER HOSPITAL.

CASE OF IMPALING ON A BROOMSTICK, FOLLOWED BY TETANUS AND DEATH.

(Under the care of Mr. Holthouse.)

[Reported by Mr. Cheyne, Surgical Registrar.]

Frederick W. H., aged 19, was admitted on July 25th, 1874, with the following history. In jumping over a broomstick resting loosely across two wooden supports four feet from the ground, the patient caught his foot, and, one end of the broomstick being fixed in the ground, he came down with all his weight on the handle-end (unsharpened), which entered the scrotum, and passed upwards in front of the right pubic crest, between the integuments and external oblique muscle, as high as the ninth rib, the wound being fourteen inches long. The broomstick was withdrawn immediately, but with difficulty, by a companion. The bleeding was very slight, but the pain was intense. The patient came to the hospital in a cab at 6.30 P.M., shortly after the accident.

On admission, there was a large lacerated wound on the right side of the scrotum posteriorly, exposing the testicle. A good deal of air was present in the abdominal integuments along a line from the right pubic crest to the ribs in the nipple-line, and he had much pain on pressure. The symptoms were not urgent. The wound of the scrotum was brought together with sutures by the house-surgeon, and the patient put to bed.

July 27th. The patient had been going on favourably. Temperature to-day 101.4; pulse 96; tongue moist, thin fur. He was ordered to have ten minims of compound tincture of chloroform in an ounce of camphor mixture three times a day.

July 28th. There was redness of skin in the right iliac and lumbar regions; also ecchymosis in the right iliac region on the inner side of both thighs at the upper part. A raised puffy line extended from the pubes to the rib in the nipple-line, with great tenderness. There was some fœtid discharge from the scrotum, mixed with air. Pulse 90. The bowels were not open. The stitches were removed, and the wound dressed with carbolised oil. The patient described his urine as having the colour of strong tea; but, on examination, it was found healthy. There had been no evidence of injury to the urethra.

July 29th. The same elevated and red condition of the skin between the pubes and ribs was present. The scrotum was discharging offensively, and beginning to slough. Tongue moist, with a thin fur; pulse 102; temperature 101.4.

July 30th. The nurse reported that the patient had been delirious in the night; but he was quite clear this morning. Tongue moist, furred; pulse 102, hard; temperature 102.2. The scrotum had been poulticed with charcoal, and looked cleaner. The skin of the abdomen was more raised in a line from the right half of the pubes parallel with and two inches above Poupart's ligament and the iliac crest, up to the rib in the nipple-line. The swelling was quite as large as if the broomstick were still under the integuments, and was evidently due to air. The skin was red in the same line, and at the end just under the rib there was a broader and round patch of redness. The whole was very tender. Pressure did not produce any escape of pus or air from the wound. Fomentations were applied, and he was ordered to have a dose of house medicine. At 5 P.M., he complained of stiffness of the muscles of the lower jaw.

July 31st. He passed a restless night. The muscles of the neck were very rigid. The head was bent backwards; he could not move it from the pillow; it felt very heavy. He complained of pain in the muscles of the back, running to the jaw. He could only separate the teeth slightly. Swallowing was attended with difficulty. Temperature at 9.30 A.M., 98.2; at 11 A.M., 101.2. Pulse 108. Mr. Davies, house-surgeon, made an incision into the abdominal swelling this morning, above the anterior superior iliac spine, and gave exit to a quantity of air and about three ounces of very fœtid pus. The scrotum was discharging freely. At 2 P.M., he was ordered to have one drop of croton-oil in a pill; and to have twenty minims of tincture of opium with each dose of his medicine—to be taken every four hours.—7 P.M. The bowels had not acted; and the pill was repeated, but was vomited. He was scarcely able to separate his teeth at all. There were tetanic spasms of the muscles of the back. The muscles of the neck were very hard.—10 P.M. He was unable to take medicine; deglutition was impossible. The bowels had not acted. He was ordered to have an enema at once.—11 P.M. The enema returned, producing scarcely any action of the bowels. The patient was bathed in cold sweat, and had the risus sardonicus. He complained of much pain in the back and neck. He was ordered to have one grain of morphia injected under the skin at once.—12 P.M. The patient had been asleep since the injection of the morphia. Tetanic spasm disturbed him occasionally.

August 1st, 4.45 A.M. The patient was very blue in the face, with mucous rattle in the throat. He appeared to be in great pain, and was bathed in cold sweat. The morphia injection was repeated. He died at 5.45 A.M.

Necropsy, thirty hours after death.—Rigor mortis was strongly marked. The body was well nourished, of a slender build. A long patch of discoloured skin, from three to four inches broad, extended from the right pubic crest to the costal cartilage in the nipple-line. The posterior part of the scrotum of the right side was irregularly torn, and in a sloughy state. An incision carried along the discoloured integument disclosed a cavity, three or four inches wide, and fourteen inches in length, extending from the scrotum to the ninth costal cartilage. It contained gas and a moderate quantity of thick sanguineous fluid. In the floor, the external oblique muscle and its aponeurosis could be seen, together with several vessels and nerves, exposed in sloughing cellular tissue. At the top of the cavity, lying on the aponeurosis of the external oblique, and immediately below the rib, was a piece of trouser material, two inches square. Below, the cavity communicated with the scrotum by an opening, which barely admitted the forefinger at first, but was easily dilated. From without inwards, the wound commenced by laceration of the scrotum at the lower and posterior part of the right side, and, passing behind the right testicle (which was bruised), it emerged into the cavity just described between the spermatic cord and the linea alba. The examination was not carried further, as opposition on the part of the friends was anticipated.

EDINBURGH ROYAL INFIRMARY.

TRUE FIBROUS POLYPUS OF THE UTERUS; PRICKLE-CELLS IN THE EPITHELIUM OF ITS LOWER EXPOSED END.

(Under the care of Dr. Matthews Duncan.)

Mrs. G., 53 years of age, mother of four children, said she had floodings, white discharge, and pain low down in the left side. The menses had for some time ceased, when, six years ago, the floodings commenced. They came at irregular intervals, lasted for about six weeks, and were very profuse and weakening. When she was not flooding, there was what she called profuse white discharge.

On examining the hypogastric regions, nothing abnormal was to be detected; but a vaginal examination revealed the cause of the bleeding. A hard round tumour, bigger than a hen's egg, filled the passage. On separating the labia, its lower end could be seen, and bearing-down effort pressed it farther down into the vaginal opening. This lower end was observed to be rough (wart-like) on the surface, and to have the appearance of being frequently exposed to the air. The pedicle of the tumour was thick, and could be traced through the cervix into the proper uterine cavity.

The polypus was seized with volsella, pulled down till the stalk could be easily reached, and this last was quickly divided by strong scissors. There was only very slight bleeding. The patient was put to bed, and made a very rapid recovery.

The interest of this cases lies greatly in the examination of the tumour. It was a true fibrous polypus; that is, it was not an enucleated fibroid, but the kernel tumour had a loose cellular investment, which again was covered by a thick capsule of muscular tissue, with mucous membrane externally. The condition of the lowest part of the mucous membrane has already been described so far as naked eye appearances go. It was subjected to special microscopical investigation by my assistant Dr. Hardie, who discovered the epithelium to be very thick, somewhat globular in its deepest layers, over which were placed layers which had all the characters of the prickle-cells of Max Schultze. The rows of prickles did not, in the cells examined, appear to be so long as in prickle-cells of the skin or of a rodent ulcer; but otherwise they were quite characteristic, and indigitated with one another in the usual way.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st, Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 12TH, 1874.

BODY-FORCE AND STIMULANTS.

WE have already seen that the body possesses a fund of material convertible into heat or force. The existence of living beings would be very precarious without some such store within each organism. Without it, a brief denial of food, no matter how originating, would be fatal. A quinsey would be a mortal affection, and an attack of subacute gastritis with vomiting would at once extinguish life; they would become grave diseases, instead of being troublesome rather than serious affections. A few days of complete fasting would become impracticable, for such survival would be simply impossible.

As it is, however, each system has a reserve-store, a sort of capital out of which it draws and into which it pays, there being always so much capital at any given time. This fund is a matter of the greatest moment in the treatment of disease, or of other passing conditions. Certainly, alcohol is a readily combustible material, quickly giving out manifestations of energy; but it has other actions, of which the chief is to unlock and render available some of the reserve-force of the body. For instance, in a recent accident on the Engadine, a lady fell over some rocks, and was found prostrate and apparently sinking. Brandy was given once and again, and the lady rallied sufficiently to be conveyed to her hotel. Now, the combustion or oxidation of the brandy did not make all this difference; the change was chiefly owing to its action as a stimulant. As such, it rendered available some of the lady's reserve-fund of force, and so enabled her to rally. As such, it was serviceable, and prevented her from sinking, as she probably would have done, if she had not been enabled to get at her reserve-fund.

In like manner, in the treatment of acute disease, we find a resort to alcoholic stimulants commonly indicated—indeed, something more—necessitated. The system, not equal to the assimilation of food to meet its outgoings, would succumb if it were not for this reserve-fund from which it can draw. It also depends much upon this reserve, whether a patient will ultimately weather the storm or not; or, in more familiar phrase, it is a question of stamina; if he possess the stamina, he will pull through, we say. Couched in this phraseology, the idea seems quite familiar to us, and many an observer can note the presence or absence of that stamina without being able at all to say what it is, or in what it consists. But as to its importance, no doubt exists.

In the treatment of fever, we give the patient milk, more or less sheathed with alkalies, because we know that it is the most easily assimilable of foods, and requires least elaboration in the system, weakened and overtaxed by disease. We also give beef-tea, in liberal quantities usually. Such, indeed, may be regarded as the routine treatment of an acute pyretic affection now, as regards food. But, when the powers are flagging, and more so when the patient seems sinking, we resort to alcohol in some of its forms, and not rarely administer it very freely. The effect of this is to enable the patient to rally, just as did the lady on the Engadine. The *modus operandi* of our measures we do not usually investigate; we prefer to say the stimulant restored the patient, and so to leave the matter, satisfied with the fact. And yet our measures would be at least more rational, and not rarely more successful, if we understood intelligently what we were doing and what we proposed to do. If we realise distinctly that, in resorting to such measures, we are not so much supplying to the system force, or what is convertible into it, as liberating some of the stored force of the system—calling out into action what was there in a static form—we shall all the better comprehend that there must be a limit to the powers of the system, and that the stimulation may be carried to a mischievous extent. Unfortunately, such over-stimulation is far from uncommon. There is no doubt that many a system has been wrecked by an injudicious perseverance in stimulation. The manifestations of energy, so evoked, are regarded as evidences of power, of capacity in the system. We might as well regard money procured by mortgage as an increase in material wealth. In spending that money, the individual may indicate the possession of funds, but it would be very unwise to forget how they are procured. By such means a man may get through his estate, and every display of expenditure has been a dissipation of capital, and that capital, too, of a known extent; so that every sum spent is so much actual diminution of the whole stock. So it is with the person who is under stimulation. It may be highly desirable, nay, absolutely necessary, to bring some of the capital into an active condition—a mortgage or an amount of stimulation may be necessitated; but in either case it is a loan; it is not the creation of wealth. And yet, in both cases, the plan of drawing upon the capital is often steadily pursued, as if the stores were illimitable. It is a great mistake, however, as both the owners of mortgaged properties and the subjects of stimulation find out.

In actual practice, indeed, beef-tea and stimulants are given as if there were no limits to cause apprehension, and it would appear as if the predominant idea was that, by a sufficiently free administration of these agents, force could be created *ad libitum*. Those who so act, overlook the important fact, that the system has to bring about this conversion, which might be unlimited if the system possessed unbounded powers. Such, however, is not the case. The system may, by the administration of stimulants, and by the force produced by the oxidation of the alcohol, be enabled to assimilate a certain quantity of food which would otherwise be unavailable; but it cannot be forced to any length at will.

So, in the administration of beef-tea. There is little real force-bearing material in the protein compounds of the beef-tea. As we have seen, but little actual force is evoked in the oxidation of nitrogenised compounds in the body. Nevertheless, a cupful of beef-tea makes a patient often feel much better, and apparently endows him with energy. But, after all, it is a loan, not a free gift. It does not so much give him force as it enables him to borrow from himself. It is easy to see how the administration of beef-tea may be carried to a mischievous and injurious extent; how manifestations of energy may be evoked, which are not evidences of power, but which are really exhausting discharges of force.

It is abundantly obvious, that a system of stimulation, by the combined use of alcohol and beef-tea, may cut both ways. It may tide a system over a period of danger, or it may still further imperil the existence of the organism, by drafts upon the physiological capital until complete exhaustion is induced. It is desirable that, in such times of acute peril, the expenditure of force be minimised, and not one fraction more than is absolutely necessary be drawn out of the body-bank. Every unnecessary expenditure of force is waste. That waste should never be deliberately induced. It may be all very well to see the invalid looking brisker and livelier, but, if that temporary activity serve no useful end, it is so much wasted energy. It would be just as foolish to regard a dinner-party, given by a squire on raising a new mortgage, as evidence of superfluous wealth, as to be delighted at a condition of temporary energy on the part of a patient, when we know that it is the result of a loan upon the body-capital. The expenditure of force by the invalid should be as limited as possible, so as to eke out the available funds. If, by evoking so much energy, we can secure the assimilation of so much food, then it is justifiable to evoke it; that force, so called out, is utilised, not wasted; in the same way that a landed proprietor, without ready cash, may incur a mortgage with which to improve his property, with perfect propriety and wisdom. In each case, it is a means to an end. But to raise a loan merely for the purpose of wasting it in useless show, is not a prudent matter.

The administration of stimulants, alcoholic or nitrogenised, should, then, always be in proportion to the reserve-fund and the pressure of the emergency. Sometimes it may be neck or nothing, and an apparent recklessness may be the wisest course. The patient must be tided over the perils of the hour, no matter at what cost. At other times, however, it is desirable to look forward a little, and not to subordinate the future too much to the present. It is of little use to round a point merely to drift helplessly ashore in the bay beyond. Many patients sink, when the turning point is reached, from sheer exhaustion, for want of that force which has been uselessly expended in some fruitless energy, in some exhibitions of manifested force without result; or, in other words, has been simply wasted.

Such is too much the case with the present phase of popular treatment: and the modern aspect of therapeutics is far too much saturated with the port wine and beef-tea theory. We dissipate the force-capital in our treatment of disease, and economise it too little. We want more milk, or custard, and less beef-tea, or solutions of Liebig's extract; we want more sago and arrowroot, more actual force-bearing food than manifestors of energy, in our treatment of acute disease. We want, in fact, better and more trustworthy physiological notions than at present obtain. It is melancholy to see men so swayed by fashion, and so little influenced by real knowledge, in the treatment of disease. Bleeding and slop diet have yielded to stimulants and beef-tea, without, however, our results being much affected. As a rule, we are as far as ever from recognising the conditions under which one or other plan may be indicated. The present wave of opinion is one of unhesitating belief in beef-tea and brandy—sometimes one, sometimes the other, predominating. No sceptical inquiry into the *rationale* of the thing is dreamt of. It is quite enough for the friends of Mrs. A. that she is being treated in the same way as Lady B. was; and Lady B.'s friends felt a distinct satisfaction in the thought that she was treated in identically the same way as the late Duchess of C. was. Whether the result was death or recovery, seems quite a secondary consideration.

It is not, however, in the treatment of acute conditions that this misconception, as to the real aims and effects of the resort to beef-tea and stimulants, is most clearly manifested. It is in the modern treatment of the more chronic conditions of growth in children it is most apparent. If a child be not very well, if growth be taxing its energies, and it be not very lively and energetic, the first thing the parents do is to give it a glass or two of port wine. They do not look to see if this enable it to consume and assimilate more food; it is enough for them that it is more active. Indeed, the pseudo-energy given by a partial intoxication is regarded as indication of growing strength, of waxing power. And when the poor little thing ceases to grow, is more languid than ever, except under the exhilaration of alcohol, when fictitious displays of power are alone possible, they give it more wine and add beef-tea. Under such a plan, the child commonly wears out, or is rescued by a severe illness when it leaves a long convalescence under proper skilled supervision, during which an useful and competent fund of body-force is once more accumulated.

The same pernicious system of combining alcohol and beef-tea obtains among invalids and aged persons. Instead of reducing the demands upon the system to the capacities of the organism, proportioned to its diminished power, they erect an ideal standard to be aimed at, and whip themselves up with wine and excessive nitrogen, until they feel more or less as they wish to feel, and can do more or less what they wish to do. By such means the system becomes worn out, exhausted before its time. The old proverb, that it is better to wear out than to rust out, is all very well; but the one is often a much more expeditious process than the other.

Finally, our impressions as to the true physiological relations of food to body-force, of the real action of stimulants in the treatment of disease need much improvement, perhaps even correction, in the profession itself. Much more is it needed by the general public, who usually hold the views of the past generation. It takes many years for ideas to filter down from the van of the profession to the bulk of the general public, and, by the time the public is reached, the ideas have undergone a process of crystallisation which gives them a permanent form; and the destruction of the old established ideas is often more difficult than the inculcation of new truths. Indeed, the advance of knowledge is usually obstructed by these crystallised masses of a bygone time; just as the agriculturist of to-day is obstructed often by the fragments of past geologic ages.

Our treatment has assumed a character too decidedly stimulant, and not quite sufficiently nutritive. Stimulants ought to be regarded as auxiliaries to nutrition more than they are at present. Nutritive material, as milk, meat-juice, eggs, and various forms of starch, ought to form a greater matter in the dietary of the sick than stimulants, whether nitrogenised or alcoholic; such materials, when assimilated, give supplies of force. Stimulants may assist in their assimilation, and do so; but, in themselves, stimulants only furnish limited supplies of force-bearing material. They are, however, a means by which the system may reach some of its physiological reserve fund. Such use may be advantageous or pernicious, according to circumstances; and an ill-regulated or excessive process of stimulation, may give results as disastrous, as a wise and intelligent resort to stimulants may be beneficial and preservative in its consequences.

ENTERIC FEVER AND INTERMITTENT WATER-SUPPLIES.

The recent outbreak of enteric fever in Lewes, to which we have already drawn attention, affords a marked instance of the danger associated with the intermittent supply of water; and it is not the first occasion on which this system has been the means of spreading disease. Early in 1873, enteric fever broke out with considerable violence in the town of Sherborne, in Dorsetshire, occasional cases having for some time previously existed in the place; and the epidemic was specially marked by the sudden manner in which a great increase took place on several occasions in the number of fresh cases; each such increase evidently corresponding to the influence upon the population of some very generally prevailing means of infection. Investigation soon made it plain that the town-water had been the cause of the outbreak; but the water was derived from sources which were above suspicion, and it was, as a rule, delivered under a system of constant pressure. It was, however, ascertained by Dr. Blaxall of the Local Government Board that, just preceding the commencement of the epidemic, and also just prior to the recurring fresh outbursts which had marked its progress, the water had on several occasions been shut off from the town at a point just below the reservoir, and on these occasions it had been noticed that there were certain delivery-pipes up which there was a rush of air immediately the tap was unscrewed. Some of these service-pipes passed directly from the mains into water-closet pans, and, when the taps were turned on for the admission of water, it was found that none was forthcoming; it often happened that they were not turned off again, and thus an unbroken communication between the interior of the closet-pans and the water-mains was established. Through these openings air must constantly have been drawn into the mains, and, in those instances in which the trapping of the closets was out of order, the service-pipes must also to some extent have become a means for ventilating the sewers. Besides this, whenever a closet-pan happened to be full of excrement, there was the additional danger that some portion of it might be sucked up into the water-pipes; and, at the date to which we are referring, the excrement was in many parts of Sherborne of a specifically diseased nature. Indeed, all the circumstances of this epidemic having been carefully thought out, it became evident that the pollution of drinking water by which it had been caused was in reality brought about by the suction of foul matter into the mains in the manner we have indicated.

Dr. Alfred Carpenter has also clearly pointed out some of the principal dangers connected with an intermittent water-service, and he has found that in Croydon the health of entire households has been deranged, when, or soon after, the district in which they have lived has temporarily received an intermittent water-supply, owing to some such circumstance as the demand being for the moment greater than the quantity at command. And in some of these instances an examination of the water has shown that whereas, when it left the works of the local authority, it has unquestionably been pure, yet it has become contaminated before being drawn from the service-pipes. In bringing this subject forward, Dr. Carpenter also directed attention to some of the means by which this pollution may take place, and amongst these he has specially referred to a suction-action in the mains and services, occurring on the supply being intermittent, and resulting, wherever there are defects in the pipes, in a regurgitation from the subsoil in which the pipes are laid. Wherever this soil is saturated with sewage, it is obvious that what is practically a solution of sewage may be drawn into the mains, and so a general or a local pollution of water may take place.

And in June last we at some length described how, under somewhat similar circumstances, an outbreak of this same disease in Caius College, Cambridge, had been brought about. In that peculiarly instructive instance, it was clearly shown by Dr. Buchanan that, owing to the temporary emptying of a horizontal service-main belonging to one side of the College—an occurrence which was only rendered possible by the defective construction of a certain valve-tap—foul air and even excrementitious matter had been sucked into the water-main from a closet which was supplied with water directly from the main, and which had also received the poisonous evacuations of an enteric fever patient. In this way, a local pollution of water had taken place, which resulted in a considerable prevalence of enteric fever amongst the residents in that part of the College supplied from the main in question.

Those who have read the account of Dr. Thorne Thorne's recent inquiry at Lewes must have seen how strikingly, and on how large a scale, the numerous means by which water may become polluted after it is in the mains did actually come into operation, and how serious the results were to those who used the town water. Both foul air and specifically diseased excrement had evidently been sucked up into the water-mains by means of service-pipes passing into water-closet pans without the intervention of cisterns; foul matters had been drawn into the mains at points where they were defective in construction, and also through perforations which had been brought about by the corrosion of lead service-pipes in their passage through polluted soils. And by these means an epidemic of enteric fever was produced, which, from its very magnitude, has attracted general attention; and dangers which have hitherto been regarded as rather theoretical than otherwise have shown themselves in so distinct a manner, that for the future it will be impossible to ignore them.

The experience thus gained points to the necessity of adopting all the measures by which a similar occurrence may in the future be prevented. In the first place, it is evident that no closet should be supplied with water, except through the intervention of a cistern. This will at least prevent any foulness in the closet-pans from causing injury to the water in the mains. But so long as the supply is an intermittent one, so long will there be danger of foul matters being sucked into the pipes at every point where leakages take place when the pressure of water is on. And in such a city as our metropolis, for example, where the soil through which the water-pipes pass contains in many parts a perfect network of sewers and drains of more or less imperfect construction, it is obvious that such a result may at times ensue, and, the foul matter being subsequently driven into our cisterns, local pollutions of water, resulting in the production of ill-health and actual disease, in all probability do occur. But, so long as a constant service is maintained, this danger cannot arise; for the maintenance of a pressure from within the mains prevents the occurrence of the suction-action referred to; and the results which have been obtained in the investigations to which we have drawn attention point more conclusively than ever to the obvious advantages attendant upon the provision of such a supply. Still, when all this is done, the danger is not entirely removed; for circumstances, such as the necessity for effecting repairs, will constantly require the emptying of the mains; and hence the question arises whether some means cannot be devised, either for retaining the water in all parts of the service, except that which is at the moment undergoing repair, or for admitting air of unquestionable purity into the mains wherever and whenever they are emptied of water. At the present moment, the subject is, to a great extent, a new one, which has received but little consideration; but, connected as it certainly is with the spread of a disease which, though essentially a preventable one, yet adds largely to the annual mortality of this kingdom, its importance cannot easily be overestimated.

In consequence of the typhoid epidemic at Lewes not being quite stamped out, the business of the Winter Assizes will be transferred this year to Brighton.

A BAZAAR in aid of the funds of the East London Hospital for Children was held recently at the residence of Mr. J. B. Price of Kensington, and resulted in a clear gain of £150 to the funds of the institution.

AN examination of candidates for twenty appointments in the Indian Medical Service will be held in February next. Copies of the regulations can be obtained of Major-General T. F. Pears at the Indian Office.

WE learn, with great regret, the death of M. Husson, late Director-General of the Assistance Publique, which has just taken place in the sixty-fifth year of his age. He was a member of the Institute, and was raised during the Empire to the dignity of Commander of the Legion of Honour for his services in that department.

DEPUTY SURGEON-GENERAL SIR ANTHONY D. HOME, K.C.B., V.C., has been appointed to be head of the Statistical Branch of the Director-General's Office in London. The very high reputation which Sir Anthony Home has long held in the Army Medical Department is a sufficient guarantee that the important duties connected with the arrangement of the medical statistics of the army will not suffer in his hands. This transfer causes a vacancy in the post of principal medical officer of the south-eastern district.

STATISTICAL SOCIETY.

THE second ordinary meeting of the present session will be held on Tuesday, the 15th instant, at the Society's rooms, Somerset House Terrace (King's College entrance), Strand, W.C., when a paper will be read on the Value of Death-Rates as a Test of Sanitary Condition, by N. A. Humphreys, Esq., F.S.S. The Chair will be taken at 7.45 P.M.

DISCRIMINATION IN CHARITY.

WE have pointed out more than once that some lack of caution has been shown of late years in munificent donations to some of the sham special hospitals with which the metropolis is infested, some of which are little more than traps for the charitable. We observe that, at a recent meeting of the Hampstead Branch of the Charity Organisation Society, Mr. Ribton-Turner stated, as an example of the evil of indiscriminate alms-giving, that the anonymous "£1000 donor" had given to more than one sham charitable institution, and had, in one case, sent that sum to a society the sole manager of which was prosecuted for fraud and forgery. In another instance, where two donations were transmitted through a bank to a charitable institution, the bankers sent to the Society for information regarding the character of the charity before the second donation was paid over. They were furnished with a report, which showed the institution in question to be a sham; but, having no means of communicating with the anonymous donor, they were unfortunately obliged to pay the contribution. In the absence of a Government audit of the accounts of public charities, a good deal of caution is sometimes necessary.

THE LIMITATION OF SCARLET FEVER.

THE Epsom Local Board of Health has very properly interposed to prevent a not uncommon mode of conveying scarlet fever. On September 12th, a family with five children came to reside at Epsom. One of the children, quite well on September 28th, had signs and symptoms of scarlet fever on the 29th. For the removal of the sick child, a fly was hired from the nearest livery-stable keeper; it was not a licensed carriage; any one could order the fly, and it was used almost every day. The lawyer for the defence contended that the fly was not a public conveyance as described by the Act, but rested chiefly on a discrepancy of medical opinion. The medical man in attendance believed scarlet fever to be infectious in the early stages, but said that others were of a different opinion. A medical witness was brought forward to give an opinion that "any number of children might have been put into the carriage with the sick child at that time without taking the disease". The magistrates, in dismissing the summons, thanked the Board of Health for acting in the matter. The summons taken out against the friends of the patient will not be altogether without effect. Scarlet fever is the one disease we may hope to keep in check by precautions against infection. The signs of the disease, whether in the throat or on the skin, follow so quickly upon the first sickening, and are so obvious, that timely warning is given for saving others from infection; but if, for the protection of a single family, the sick person is to be removed in a public carriage, we run the risk, not only of infecting other children who may happen to be in such carriage at the time, but of spreading infection for an indefinite time among those who may chance to follow. It is clearly criminal to incur such risk now that special carriages can be obtained from the parochial offices of all parts of London, from the Fever Hospital, and from many of the general hospitals, at less expense than by private means, and with as much comfort.

THE HEALTH OF MALTA.

SANITARY matters have recently attracted considerable attention in Malta. This island, which, from situation and climate, should be one of the healthiest spots in the world, is evidently not so fortunate in its sanitary condition. The enumerated population of Malta in 1871 was 123,373; and, as the superficial area is but ninety-five square miles, the density of the population is equal to 1309 persons to each square mile, exclusive of the garrison, fleet, and trading vessels. Belgium, which is said to be the most thickly peopled area on the European continent, has only 451 persons to a square mile; and the density in England and Wales does not exceed 389. The average annual rate of mortality in Malta from all causes has been as high as 28.3 per 1000 during the last ten years. The island suffered from a severe epidemic of cholera in 1865, and from one of small-pox from 1870 to 1873, while diphtheria was more or less prevalent from 1867 to 1873. These epidemics contributed largely to raise the death-rate to the high figure before mentioned; indeed, from 1867 to 1871, the death-rate in Malta and Gozo was 29.0 per 1000. In the year 1872, however, the rate in the two islands declined to 24.3, and further fell in 1873 to 22.4. A moderate rate of mortality prevailed during the first five months of this year; but, during June, July, and August, the deaths increased so rapidly, that the death-rate rose to 49.2 in Malta, the rate for the twelve months ending August being 34.9. As fortnightly returns of mortality have been regularly published in Malta since May 1872, this high death-rate during last summer attracted the attention of the Government authorities; and, on July 23rd, a Commission was appointed by the governor "to inquire into, and report upon, the causes of the recent increase in the mortality of Malta". This Commission was presided over by Surgeon-General J. H. Ker Innes, and was composed of members of the medical profession. The Report of this Commission, dated Valletta, October 10th, is now before us. The cause of the high death-rate in Malta is, generally, referred to "growing poverty, a depressed trade, and a population too dense to admit of fitting expansion, and living in reckless violation of the primary laws of health". With regard to the specific defects in the sanitary condition of the island, the most important appears to be the want of pure water. The water-supply of Malta may be said to be "simply its collected rainfall", which, in town districts, is principally stored in cisterns sunk in the solid rock beneath the basement of the houses. In agricultural districts, the inhabitants are dependent upon tanks, in which the surface-water is collected. Under these circumstances, it may be easily imagined the water is at times very scarce, as well as generally of inferior quality. In towns, cesspits often exist in close contiguity to these underground cisterns. Very little sewerage is said to exist, and much of what does exist is more dangerous to health than the want of it. Overcrowding in its worst forms is the natural result of combined poverty and a redundant population. The evils of this overcrowding are intensified by the faults of local drainage, and the "many sources of foulness which have their origin in the prevalent and too general usage which admits the lower animals to share the same roof with their owners"; house-cellars are frequently used as stables. The first step suggested by this Report for the redress of these sanitary shortcomings, is the creation of some sanitary authority who should have charge of the hygienic condition of Malta, and the appointment of a central officer—indeed, a medical officer of health—who would be responsible to such authority.

LONGEVITY.

MR. F. PORTER SMITH, M.B., of Shepton Mallet, has discovered an undoubted specimen of the centenarian, and challenges Mr. Thoms to upset his claims to that distinction. The old man has served through the Peninsular wars. The old Belisarius was born in 1774 and baptised in 1775, according to the registrars and the family Bible.

MEDICAL MEN ON SCHOOL BOARDS.

THE School Board of Brighton have fully recognised the importance of having the medical element represented in its councils, and Dr. John Homis has been elected. It was unanimously agreed that, as physicians and surgeons were men of education and cultivation, they are in every way qualified to supervise school work, and could their co-operation be secured, the sanitary condition of these institutions might be greatly improved, especially as regards ventilation, the propriety of athletic exercise, and general hygienic regulations.

THE SMALL-POX EMIGRANTS AT LIVERPOOL.

THE emigrants who had been passed on to Liverpool from London were not so free from infection as had been supposed, and shortly after their reshipment on board the *Illinois* the epidemic again made its appearance, and seven persons were attacked and removed to the infectious hospital, where they now remain. Every care has been taken by the authorities, both in making the foreigners as comfortable as possible, and preventing the spread of infection. A proposal is on foot to establish a quarantine establishment at Liverpool, as a similar case occurred there on a previous occasion, when the *Helvetia* put back there with an outbreak of cholera on board. The authorities of that town express great indignation at the London officials who forwarded so many emigrants to Liverpool without having enforced a sufficient quarantine.

EXTENSION OF THE BUILDINGS OF THE UNIVERSITY OF EDINBURGH.

AN important meeting was held on Monday last, the 7th instant, under the presidency of H.R.H. the Duke of Edinburgh, to promote a movement for extending and enlarging the University of Edinburgh, and for equipping the University with all the appliances necessary for advancing and teaching modern science. The Duke made a strong appeal to the company assembled on behalf of these objects, pointing out what had been done in a similar cause by Oxford, Cambridge, Manchester, and Newcastle, in advancing the scope and usefulness of their respective Universities. Edinburgh was not behind other cities in the public spirit of its students and inhabitants, as already £70,000 had been subscribed; but that sum was not sufficient, and another £30,000 was required. It was for the purpose of raising that sum that he was begging for an institution which has done and is now doing a great work in the intellectual development of the nation. It now educates annually two thousand students, a number approaching that in the University of Oxford. The Earl of Derby, in the absence of Earl Russell (who is nearly, if not quite, the oldest graduate of the University), moved the first resolution: "That the University of Edinburgh deserves the sympathy of all Scotsmen resident in London, and of all who are interested in the cause of science." The Rev. Oswald Dykes, D.D., in seconding this resolution, remarked that, if they wished to keep up the high industrial and commercial position of this country among the nations, they must foster the interests of science by making ample provision for its practical cultivation at those scientific centres of which they had not now so many that they could afford to have any one of them crippled in its operations. Professor Huxley moved, and Professor Allman seconded, a resolution that the present state of the buildings in the University was such as to impede its functions; and Dr. Lyon Playfair, M.P., strongly urged upon the meeting the necessity of supporting this movement. The aid of rich men was an indispensable condition for the advancement of learning. The German nation were building laboratories on a scale and cost which this country had not yet ventured to imitate. Mr. Hugh Matheson moved the next resolution: "That the meeting resolves that every effort should be made in London towards obtaining the amount requisite." Judging from the influential character of the supporters of the movement, this desired result will soon be attained.

OPIUM AND OPIUM-SMOKING IN CHINA.

IN some Foreign Office reports from Her Majesty's Secretaries of Embassy and Legation in China, we find incidental reference to the opium-trade and opium-smoking in that country. Writing from Kewkiang, Mr. King, one of the contributors to these reports, states that there has been of late a considerable increase in the local importation of opium, and that it appears to be general throughout China; for the shipments from India are larger than ever, notwithstanding the increased native production. The augmentation in the consumption is also described as universal. Mr. King records the results of his observations of the effect of opium upon Chinese smokers. During a tour on the Upper Yangtsze and in Szechuen, he was thrown into the closest relations with junk sailors and others, almost every one of whom used the drug more or less. Their work was of the hardest and rudest kind; and, although they smoked opium largely, the quantity of food they ate was prodigious, and their constitutions were fairly robust. The two whom Mr. King observed as being the greatest smokers were the pilot and the cook, both of whom worked harder than any of the other men; and the second seemed quite independent of sleep or rest. He always provided himself with a conserve of opium and sugar, which he chewed during the day, as he was only able to smoke at night. Mr. King does not believe that the native grown drug differs sufficiently from the Indian to account for these instances of harmless smoking, while, on the other hand, he does not wish to express an opinion that opium-smoking does no harm; but the habit can and does exist without apparent detriment to the health and capability of the smoker. Mr. Consul Harvey, writing from Newchang, states that there can be no doubt that the cultivation of the poppy is on the increase throughout Manchuria. The action of the imperial and local authorities, however, is very irregular and uncertain. Proclamations are issued from time to time forbidding the cultivation of the poppy; on the other hand, the existence of the native drug has been recognised in the Newchang district, and the lekin tax upon it is fixed at one-third less than that charged on the foreign article. Still it is pointed out that practically no revenue is derived from native opium, and that it is quite an underhand trade. Some officials wink at its growth, while others are zealous to suppress it; and Mr. Harvey states that the sole result of the action taken by the officials has been, by rendering the cultivation and sale underhand, to destroy what might otherwise be a large source of revenue, and to keep the drug at an artificial and exceptional price. It appears that the consumption of Indian opium in China has been but very slightly affected by the increased cultivation of the native drug. In many districts, the latter is only used for mixing with the former, generally in the proportion of seven parts of foreign, to three of native, opium. The number of those who only smoke the native article is extremely small, and they are to be found solely amongst the poorest of the population, or in the interior, away from towns and the main highways of traffic, and in spots where the foreign opium has not penetrated. Many, it is stated, begin with the native drug, but, as they become confirmed smokers, they sooner or later adopt the Indian production; and there can be no doubt as to the superior estimation in which foreign opium is held. It is not merely that the native article is deficient in strength, but the flavour is bitter and disagreeable; and some assert that its exclusive use is very injurious to health. According to the statements of Mr. Consul Harvey, by a portion of the Chinese population the native opium is credited with the production of eruptions of the skin, and of small boils or ulcers, which the use of Indian opium is supposed to cure in a few days; others maintain that the native drug gives rise to dysentery, which also is said to disappear when the foreign drug is used. "From the inquiries I have made" (adds Mr. Harvey), "I am sceptical as to these ill effects; but the existence of such a belief, however ill founded, goes to show the degree of esteem in which Indian opium is held." With regard to the latter, one important point must be noticed—it can be obtained pure, whilst the constant practice of adulterating the native article has unquestionably largely contributed to its unpopularity. On the other hand, it possesses certain points of superiority which deserve mention; for instance, the best kinds yield cent. per cent. of the prepared drug, and it can be resmoked three or four times, while the drug prepared from the ash of the first smoking is stronger than the fresh drug, though, at the same time, it gets the credit of possessing the noxious qualities (to which we have above referred) in an especial degree. With regard to the general question of the future of the Chinese opium-trade, it is said to depend upon the quality of the article grown in the country, notwithstanding that, as far as present knowledge and experience go, it would seem that the inferiority ascribed to the native drug is absolute, and due to soil and climate; but, in the event of such inferiority being satisfactorily accounted for—if it be possible—by want of skill on the part of producers, or by the practice of adulteration on the part of the dealers in the article, it is evident that improved cultivation and greater honesty must, in the course of time, render the native opium a serious rival of the Indian drug.

THE SCARLET FEVER EPIDEMIC.

A CIRCULAR letter has been addressed to all ministers of religion and medical practitioners in Paddington, by the Sanitary and Public Health Committee of the vestry for that parish, informing them that, though the epidemic of scarlet fever now prevailing in certain parts of London has not yet reached their district, yet they are desirous of resorting to all preventive means possible to guard against its extension in that neighbourhood. And in view of the fact that the infection of scarlet fever is largely communicated by children coming into contact with each other in schools, the vestry is desirous of drawing attention to the important influence which those, to whom the letter has been addressed, may be able to exercise in preventing the evil which would result if some measures were not adopted to avert the extension of the epidemic by this means. The issue of such a letter is sure to be useful; and, we trust, that it indicates a determination on the part of the Paddington vestry to use all the legal means it has at its disposal for preventing the spread of infectious diseases within its district.

ACTION FOR RECOVERY OF FEES.

An action was brought last week by a practitioner at Brighton, to recover fees for attending a Mr. Reynolds, his charge being on the minimum scale of seven shillings per visit, which is in accordance with the general rate that prevails at Brighton. The defendant obstructed the case by compelling the plaintiff to prove his qualification by the production of the *Medical Register*, and afterwards volunteered to pay at the rate of five shillings per visit. The judge, in deciding the case said, that if the plaintiff were a physician and practising as such, he was entitled to be paid according to the remuneration of physicians. It did not strike him that it was an excessive claim, but he thought seven shillings per visit a very reasonable charge for a physician to make; and a verdict was given in accordance.

THE HEALTH OF THE NAVY.

In the statistical report on the health of the navy for 1873, the Director-General calls attention to the fact, that, for the first time since these statistical reports were published in 1840, the return is issued within twelve months of the period which it embraces. Dr. Mackay says :—

> On the home station, the most noteworthy incident was the occurrence of some cases of enteric fever in three vessels of the Channel Squadron, supposed to have been occasioned by the use of impure water obtained at Vigo. An epidemic of the same disease, and referred to the same source, also occurred in two vessels of the detached squadron. Medical officers continue to bear unqualified testimony to the beneficial operation of the Contagious Diseases Act. When thoroughly carried out, it is said to be perfectly efficacious, and any apparent failure in its working is traced to its too limited sphere of action. At the Cape of Good Hope and at Bombay, where Contagious Diseases Acts existed and have been repealed, the lamentable spread of disease in consequence has been very marked; and the same may be said of Port Royal, Jamaica, where, in consequence of some defect in the legislation, the Act which had been in operation was suspended towards the end of the year. At Hong Kong, on the other hand, where surveillance is thoroughly carried out, disease, it is stated, is reduced to a minimum. On the Mediterranean station, cholera appeared in a ship stationed in the River Danube, where it prevailed epidemically in some of the towns situated on its banks. Of eight cases, three only presented the characteristic features of the malignant form of disease, and of these two proved fatal. An epidemic of yellow fever, limited happily in extent, but very fatal in its results, occurred on the North American and West Indies Station, chiefly at Port Royal, Jamaica. Of forty-three cases returned as specific yellow fever, twenty-seven proved fatal. Compared with the preceding year, there was an increase in the death-rate on this station to the extent of 7.2 per 1,000 of force, and altogether attributable to this fatal disease. Yellow fever also prevailed on the South-East Coast of America Station, at Rio de Janeiro, and attacked the crew of the receiving ship permanently stationed in that harbour. Happily the disease did not prove very virulent, as only two cases proved fatal. On the Pacific Station, dysentery appeared in an epidemic form in one of the vessels of the squadron. The invasion of the disease was very sudden, and its cause not clearly ascertained. Of thirteen cases occurring in one ship, two proved fatal. The history of the epidemic is fully recorded in the report of that station. On the West Coast of Africa and Cape of Good Hope Station, the operations on the Gold Coast in connection with the Ashantee war were productive of a large amount of febrile disease and dysentery, and as a consequence with a great increase in the invaliding and death-rates on that station. Compared with the preceding twelve months, the increase in the ratio of invaliding was to the extent of 76.4 per 1,000 of force, and in the death-rate of 12.5 per 1,000. There was nothing of a noteworthy character in connection with the medical histories of the East India, China, and Australian stations. Notwithstanding the prevalence of serious forms of disease in an epidemic form on so many stations, and in the irregular force, and the amount of sickness resulting from the operations on the Gold Coast, it is gratifying to be able to report that the ratios of cases, of invaliding, and deaths, in the total force were only increased to a comparatively small degree. The ratio of cases per 1,000 entered on the sick list in the total force was 1,200.1, of invaliding 37.1, and of mortality 8.3. Compared with the preceding twelve months, there was an increase in the ratio of cases to the extent of 29.2 per 1,000; in the invaliding rate of 2.8; and in the death-rate of 0.1. The ratio of mortality in the total force from disease only was 6 per 1,000. In 1872, it was 5.6.

SCOTLAND.

At a meeting of the Royal Medical Society of Edinburgh, the following gentlemen were elected annual presidents. R. Saundby, M.B.; W. Garton, M.R.C.S.Eng.; M. R. Simpson; R. A. Gibbons, M.B., C.M.

PROPOSED CHAIR OF AURAL SURGERY IN GLASGOW.

Considerable discussion was elicited some six months ago, by the mode in which two new chairs in Glasgow University were founded. It was thought by some that the principle was a bad one, which allowed two men, however well qualified, to endow chairs obviously with a view to occupying them themselves. There was, however, something to be said on the other side. Supposing that there had been an urgent call for the founding of such chairs, or, supposing that the men were thoroughly qualified, then surely there could be no objection to their friends finding the right place and putting them in it. The matter has, of late, been reduced almost *ad absurdum*, by the proposal to found a chair of aural surgery. No doubt this is an important branch of medicine, but surely not of sufficient consequence that its teacher should occupy a status in the University equal to that of the professor of anatomy or medicine. It must be remembered that the medical professors in the Scotch Universities have seats in the Senate and Medical Faculty, and are thus possessed of important powers in the government of the University. There is no reason at all why a professor of aural surgery should have such power; at the same time, the foundation of a Lectureship might meet every difficulty. There would be the recognised position in the University without undue influence being attached to the subject. Were it not that some names of considerable influence in Glasgow have appeared in connection with this movement, it would be generally looked on as a joke. We can scarcely think that there is any serious intention entertained of actually collecting money to found a chair; at any rate, we are convinced that the University would not entertain the proposal for a moment. We wish success to the movement if its object should be the foundation of a Lectureship; and if a similar movement were started in relation to eye surgery, a still more important branch, we conceive that the medical profession would greet the proposal with every favour.

IRELAND.

ROYAL COLLEGE OF SURGEONS.

In consequence of the resignation of Dr. Sawyer, the President and Council will, on January 14th, proceed according to the provisions of the Supplemental Charter, to elect a Professor of Midwifery for this institution. Several candidates are expected to compete for the vacant post, but at present no one has been mentioned as having a better chance of success than another.

UNIVERSITY OF DUBLIN MEDICAL SOCIETY.

At a meeting of the members of this Society held on the 5th instant, the following office-bearers were elected by ballot for the ensuing session. *Committee:* T. Stack, W. Chatterton, W. Chester, A. McLaughlin, J. C. Dorman, E. C. McDowel, T. C. Fisher, R. Cochrane, J. B. Story. *Hon. Secretary:* Joseph Blood. *Treasurer:* W. H. Hart.

SCARLATINA.

This disease is still prevalent in many towns throughout the country. In Belfast, 36 deaths were registered last week, being an increase of 4 over that of the preceding week; and in Dublin, 19. In Thurles it is bad, especially among young children, in whom several deaths have occurred; whilst in Derry, an epidemic which broke out about two months since, and which abated after some time, has again made itself felt with fatal severity in a large number of cases.

SURGICAL SOCIETY OF IRELAND.

THE opening meeting of the Session was held on Friday evening, the 4th instant, the inaugural address being delivered by Mr. Joliffe Tufnell, the President, who laid before the Society two gifts which the late Dr. Arthur Jacob had bequeathed to the College of Surgeons, viz., several drawings by himself, a large number of which were on ivory, of various parts of the eye, including the "membrana Jacobi", of which he was the discoverer; and the inkstand which he invariably used during his lifetime. A supper was afterwards given by Mr. Tufnell to the members of the Council of the Society.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE first examinations under the new system for the diploma in surgery took place last week, when the candidates were examined in anatomy, physiology, materia medica, chemistry, and histology. There were forty candidates, of whom about half were rejected. The examinations were practical and fairly carried out, and the large number of failures is attributable to the imperfect preparation of men who presented themselves.

KING AND QUEEN'S COLLEGE OF PHYSICIANS: PROPOSED SUPPLEMENTAL CHARTER.

IN consequence of the appearance in the Dublin newspapers of a remarkable document, entitled a "Dissent from the Proposed Supplemental Charter sought for by the King and Queen's College of Physicians", we think it necessary to make the following remarks. It will be within the recollection of some of our readers, that it was generally known in the profession in Dublin that the Irish College of Physicians had memorialised Her Majesty's Government to grant a supplemental charter to the College with a view of assimilating the constitution of the College to those of London and Edinburgh. Accordingly, in the spring of the present year, a memorial was adopted by a large majority of the College, praying for a supplemental charter conferring upon the College the following powers: 1. Power to vote by ballot on all elections for Fellows and officers; 2. Power to establish a new order in the College to be styled members; 3. Power to appoint examiners in addition to the censors, and to appoint substitutes in case of absence of the censors from the examinations; 4. Power to accept the resignation of Fellows. The petition having been forwarded, the College was requested by Government to prepare a draft of the proposed charter: at a subsequent meeting, a Committee of the College was directed to take measures for procuring the charter. The Committee accordingly had a draft charter prepared embodying and putting into legal phraseology the memorial of the College. On receiving the draft charter, the Chief Secretary for Ireland wrote requesting the President of the College to inform His Excellency the Lord Lieutenant "whether any, and if so how many, members of the College dissent from the provisions of the draft supplemental charter, and on what grounds". The President summoned the College with a view of obtaining an answer from the dissentients, to be forwarded to the Chief Secretary for the Lord Lieutenant's information. After considerable delay, it was agreed that a document should be prepared, to be signed by the dissentients, five in number, namely, Dr. Sinclair, Sir D. Corrigan, Dr. Lyons, Dr. Cruise, and Dr. Haughton, which was to be presented to the President, in order to afford him the information necessary for answering the Lord Lieutenant. This document the President undertook to bring before the College before forwarding as a reply to the Chief Secretary. Unfortunately, instead of waiting for the document to be brought before the College in the ordinary way, and sent through the President to the Chief Secretary, the dissentients forwarded it themselves, and not only did so, but published it in the Dublin papers before the President had time to forward it to the Chief Secretary. The appearance of the document in the Dublin newspapers, and the unusual action of the dissentients in the matter, has created no small stir among the profession in Dublin, and was very strongly condemned by the College of Physicians at its next meeting. Whatever difference of opinion there may be with regard to the proposed changes in the constitution of the College, there seems to be but one opinion with regard to the action of the dissentients, namely, that they showed great want of courtesy to the President of the College, and a want of courtesy to the Lord Lieutenant and Chief Secretary. The action of the dissentients has led some persons to think that there were some underhand proceedings going on in the College, the fact being that there was no secresy in the matter; copies of the memorial for the new charter were widely circulated, and easily obtainable by any one who took an interest in the question. We shall return to this question shortly, when we hope to discuss more particularly the reasons for and against granting new powers to this ancient corporation.

THE DUBLIN PUBLIC HEALTH COMMITTEE AGAIN.

AT a meeting of the Public Health Committee of the Dublin Corporation on the 4th instant, a letter was read from the Local Government Board, requiring the Committee to reconsider the salaries fixed for the dispensary medical officers for their services under the Public Health Act, the salaries fixed being "inadequate". The enlightened Committee passed the following resolution. "That this Committee, in consequence of the vast amount of sanitary duty so satisfactorily and efficiently performed by the sanitary police, and until the actual amount of duties to be performed by the dispensary medical officers should be ascertained, respectfully decline to sanction any increase of the salaries of those medical officers; and that the consideration of the matter be postponed for twelve months." This is a happy state of things, truly, for the Dublin public and the medical officers. As the Committee seem to think that the sanitary police have "satisfactorily and efficiently" performed their duty, and imply that they can do the duty of the medical officers into the bargain, the natural conclusion is that, after twelve months, the Committee will come to the conclusion that medical officers are not required. We believe the Public Health Committee contains among its numbers, the *only* persons in Dublin who think that any of the duties of any of its officers have been "satisfactorily and efficiently" performed. The Local Government Board inspector, Captain Robinson, was present at this meeting; and we may also add there were three Dublin apothecaries present, who do not seem to have opposed the above monstrous resolution. One of the three aspires to be Lord Mayor for 1876.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

THE following paper was submitted to the thirty-nine candidates at the primary or anatomical and physiological examination for the Fellowship on November 20th. It was necessary to answer all the questions.

1. Describe the receptaculum chyli and thoracic duct, including their structure and relations to adjoining textures; and mention the points of entrance into the duct of its chief tributaries.
2. Describe that portion of the under surface of the base of the skull which is bounded in front by a horizontal line drawn through the roots of the pterygoid plates, and behind by a line between the points of the mastoid processes; and then mention, in their order from before backward, the several structures in direct relation with it.
3. Describe the functions of the medulla oblongata, (1) as a conductor, (2) as a nerve-centre; and state the facts and arguments upon which your description is based.
4. At what period of embryonic life does the formation of the human kidney begin? Describe the process of its development, from the commencement to the completion of the organ; and state when the various changes occur.

Of the thirty-nine candidates examined, eighteen were members of the College, the dates of whose diplomas ranged from November 1855 to the present month, most of whom held other medical and surgical diplomas; fourteen had already passed the primary examination for membership, and seven had not passed any examination. On the first day, twenty-four candidates attended the oral examination; out of this number, no fewer than ten members of College, and two candidates who had passed the primary examination for membership, were rejected. On the following day, there were fifteen candidates, only one of whom was a member, seven had passed the primary membership, and seven had not passed any examination; of this number, eight were rejected; making a total of twenty rejections.

At the second examination, in pathology, therapeutics, and surgery, on November 26th, the following questions were put, and were all required to be answered.

1. Describe the effects of a simple penetrating wound of the abdomen in one patient, and of a similar injury with a wounded intestine in another: state the indications for a differential diagnosis, and give the treatment of each injury.

2. Mention the diseases of the larynx for which tracheotomy may be required; and state what are the diagnostic symptoms of each. Describe the operation of tracheotomy.

3. In what circumstances is excision of the knee-joint justifiable? State what are the usual appearances presented by the interior of the joint when disorganised; and describe the pathological changes to which destruction of the articular cartilage is due.

4. Enumerate the several causes of mortification; and explain how each cause acts. Describe the various kinds of mortification, their signs, progress, and appropriate treatment.

THE SCIENTIFIC GRANTS COMMITTEE: BRITISH MEDICAL ASSOCIATION.

THE following letter, which has been addressed to the Chairman of the Committee by Dr. Burdon Sanderson, one of its members, makes an offer of much importance and liberality, to which it is desirable to give publicity. The suggestion which it makes, that the general tendency of the inquiries, if aided, should be, as far as possible, towards therapeutics, is based upon considerations, one of which is stated in the letter, and others will readily suggest themselves as of very great weight, and as being sure to approve themselves as acceptable to the Grants Committee.

49, Queen Anne Street, W., Nov. 18th.

DEAR DR. SIBSON,—I will certainly do all that I can to aid the Committee as regards the grants. I would venture to suggest that the greater part, if not the whole, should be devoted to therapeutical investigations, not merely because they are so important, but because no other source of means for carrying them out efficiently exists. I think that a great deal can be done in this direction at comparatively little cost, and I believe that it will not be difficult to meet with capable workers in London. Although I could not undertake any investigation myself at present, I should be most glad to assist by giving facilities to others. There are several subjects connected with the treatment of fever which I am most anxious to see taken up.

Yours very truly,
J. B. SANDERSON.

STATE MEDICINE EXAMINATIONS AT CAMBRIDGE.

WE publish in another column the discussion on the proposed scheme for examination in State Medicine at the University of Cambridge. We have received authentic information that the measure recommended in the report of the Board of Medical Studies will not be submitted to the senate until February 4th, 1875.

THE CONJOINT SCHEME.

Two meetings have been held at the London College of Surgeons this week, with a view to arrive at a decision on the subject of the Conjoint Scheme of Examination. The final result of the Council meeting of Thursday evening is, we are glad to learn, satisfactory. The precise nature of the arrangements by which the College will be enabled to take part in the scheme is, as we intimated would probably be the case, the subject of a compromise rendered necessary by the stringent terms of the College charter as to the appointment of "examiners of surgeons". This difficulty having been surmounted in principle by the spirit of goodwill which has prevailed on all sides, we hope soon to be able to announce that this most important measure of medical reform is in working order. It has been so often and so long delayed, that it has more than once seemed to be seriously imperilled. It has had our strenuous and persistent support, and it will have our continuous assistance. We feel that the profession is greatly indebted to those who have laboured so long and so earnestly to bring it about; and foremost amongst these we reckon Sir James Paget and Dr. Quain. Dr. Acland and Dr. Paget have given it a generous support in their ancient universities, which have shown great liberality in joining in it.

PROSECUTION AT NORWICH.

EXPERIMENTS ON ANIMALS.

THE following is a report of proceedings instituted by the Royal Society for the Protection of Animals in respect to the experiments performed by Dr. Magnan of Paris during the course of the Norwich Meeting of the British Medical Association, in connection with his researches on the differential effects of alcohol and absinthe in high doses. This is a subject on which M. Magnan has made extensive researches, which have attracted much attention in France, and his visit to Norwich was with the object of bringing those results before the notice of the profession in England, and having them further discussed.

The Court was crowded by members of the medical profession, and influential gentlemen residing in the city. Amongst the medical gentlemen present were Dr. Copeman (President of the British Medical Association), Dr. Bateman, Dr. Eade, Mr. G. W. W. Firth, Mr. Cadge, Dr. Brownfield, Dr. Beverley, Mr. A. M. F. Morgan, and Mr. J. Allen.

The summonses were taken against Dr. Eugene Magnan of Paris; Mr. Haynes S. Robinson, Mr. John Ballard Pitt, Mr. Richard Wentworth White, and Mr. Horace Turner, medical gentlemen residing in Norwich, at the instance of Mr. John Colam, Secretary of the Royal Society for the Prevention of Cruelty to Animals, for that they on the 13th August last, in the smoking-room at the Freemasons' Hall, in the parish of St. Peter Mancroft, in the said city and county of Norwich, did unlawfully illtreat, abuse, and torture certain animals—to wit, two dogs—contrary to the statute.

Mr. Colam appeared for the prosecution, and Mr. Chittock for the defence.

Mr. Colam said that these proceedings were originally taken against Dr. Magnan of Paris, and Messrs. Robinson, White, Turner, and Pitt, of Norwich, for an offence under the 12th and 13th Vic., cap. 92. In the second section the Act provided, that if any person should cruelly ill-treat, ill-use, or torture, or cause or procure to be tortured, any animal, for such an offence, he should forfeit an amount not exceeding £5. Those who aided, counselled, and abetted any such offence were principals. It was not his intention to exaggerate the evidence, but simply to state in a moderate manner the facts which took place, and, secondly, the application of those facts to the statute. Though these proceedings were looked upon as important, the issue was a simple one. In August last the British Medical Association held their meeting at Norwich, when an application was made to the Committee by a gentleman that a certain experiment should be made upon dogs, this experiment to be the injection of alcohol and absinthe into the veins and bloodvessels. The committee, knowing what the result would be, took no action, but in consequence of the importunity of the gentleman in question, certain individuals belonging to the committee, the defendants themselves, took action in the matter. These gentlemen knew perfectly well what the results of the experiment would be. One or more of them, in fact, went to Dr. Magnan, and told him that the experiments could not take place, as the results were already known to the profession. But, nothwithstanding, one of the defendants did provide and manage for the use of a room for the purposes of the experiment, and put up a notice in the Masonic Hall, announcing that it would take place. The other defendants assisted at the experiments, or counselled, aided, and abetted them. On the 13th of August, in consequence of the announcement which had been made, several gentlemen were present in the smoking room of the Masonic Hall. Dr. Magnan and his assistants were there. Dr. Magnan wore an apron that was afterwards covered with blood. Who were his assistants was not known. A dog was brought into the room on a board, to which it was strapped or tied with its back downwards and its legs extended out; in fact, if he might use the term, it was crucified. The animal struggled violently to free itself from its fetters. Its mouth was tied to prevent its expressing its sufferings, or biting. There were many medical men and many laymen present. Dr. Magnan then made an incision on the inside of the thigh. Wherever the skin of the animal is thinnest, there is the most sensation. He did not suggest that this thin part was selected in order to give more exquisite torture; it was generally selected because it was thought necessary there to make the incision for the purpose of inserting a tube in the femoral vein. Into that incision alcohol was injected. A great "scene" followed, that was to say, several gentlemen protested against the experiment, and a discussion ensued. Mr. Tufnell, whom he should call as a witness, well known as the President of the Royal College of Surgeons in Ireland, protested against the experiment.

First of all he inquired what was being done; and, next, what was going to be done. Having learned what was about to be done, he said it was a totally unnecessary operation, and downright cruelty. Dr. Haughton, of Trinity College, Dublin, also protested against the experiment as unnecessary and cruel. But notwithstanding these protests, it was decided by a majority of those present that the experiments should proceed. A second dog was then brought, tied like the other, into the room. It also struggled ineffectually to get away. An incision was likewise made in the femoral vein. Another discussion then took place; the tube or instrument with which the incision was made being in the meantime left in the wound. The end of that discussion was that the majority allowed the experiment to proceed. Absinthe was then injected into the wound. In the case of the first dog, the result of the injection of alcohol was an immediate struggle, which almost immediately subsided. The animal became dead drunk. In the second case, where absinthe was injected, the animal struggled much, cried as far as it was able, showed other symptoms of great suffering, and ultimately—not long after the injection—had a fit of epilepsy. It was not pretended that the dog suffered any further when seized with epilepsy. This was not a trial of the question of vivisection. The simple issue was whether this was an act of cruelty. If it caused suffering, was that suffering necessary or unnecessary? He should be prepared to show that it was totally unnecessary, and therefore cruel. Mr. Colam pointed out that for the purpose of ascertaining the effects of alcohol and absinthe upon the animals, it was not sought to administer it through the throat or the rectum; for, as would no doubt be contended, the injection of those spirits into the femoral vein was the more rapid method of producing the results. After asserting that the mere giving of an epileptic fit to an animal was an act of cruelty, and dilating upon the agonies the dog must have suffered between the injection of the absinthe and its seizure with the fit, he asked what was the object of the experiment, and why was it performed? It was well known what effects alcohol and absinthe had when introduced into the human system; and he thought it was not contended for a moment that any service was to be done to dogs. Even supposing they could see that there was some little advantage derived, he would reply that the cruelty produced more than counterbalanced any little good which might be produced by the experiment. Mr. Colam further said, the result of the experiment was not calculated to produce any advantage, as the experiment should have been by the throat or the rectum. The insertion of this noxious fluid into the stomach was one thing, but inserting it into a vein was another; and he submitted that the analogy was destroyed by the mode in which this experiment had been performed. If it had been injected into the stomach, he was not prepared to say whether these proceedings would have been taken. He could not, however, say whether this would have been so or not.

Mr. Chittock then made several technical objections; but after some discussion, they were overruled by the bench.

Mr. Knight Bruce of London—a non-professional gentleman who was taken to witness the experiments by Mr. Tufnell described the mode of proceeding in highly coloured language.

Richard Ward, Inspector of the Royal Society for the Prevention of Cruelty to Animals, said that he saw Mr. White, one of the defendants, on the 9th of September, and told him he was an officer of the Society for the Prevention of Cruelty to Animals, and had come to make inquiries respecting some operations that had taken place at the Masonic Hall on the 13th of August. Mr. White admitted that he was one of the committee of the Association and said Dr. Magnan had applied for permission to illustrate the effects of alcohol and absinthe on live dogs. He (Mr. White) told Dr. Magnan that they knew the effects that would follow, and that they were willing to take his word as to the results, without operating on the dogs. Dr. Magnan still wishing to demonstrate the effects, he (Mr. White) arranged for the experiment to take place in the smoking room of the Masonic Hall. He put up a board with a notice, stating that the experiment would be made. He was prèsent at the operation, and afterwards went to Sir James Paget when the disturbance took place, for he considered it a great insult to Dr. Magnan, after being allowed to make the experiments. When the voting took place, he voted for the operation, as he did not consider it cruel, and was present at it. Mr. White said that when Dr. Magnan applied to him, the committee would take no action in the matter, as the results were well known. Witness also saw Mr. Robinson, one of the defendants. He also said he was present at the smoking room on the 13th of August, when he was requested by Dr. Magnan to fetch up a dog. He (Mr. Robinson) did not see the dog secured, but saw it directly afterwards, and was present at the operation, and voted for the operasion to go on. Witness believed Mr. Robinson said he was a member of the committee. Witness afterwards called on Mr. Turner, who admitted he had arranged for the dogs, and voted for the proceedings to continue, as he did not think there was anything improper. Mr. Pitt, witness afterwards saw, and he admitted he was one of the committee, was present at the operation, and voted for the proceedings to go on, as he did not consider them cruel.

Cross-examined by Mr. Chittock—I am certain Mr. Robinson told me he was present at the operation. I made a memorandum of the conversation directly after leaving Mr. Robinson. I read my notes this morning. Mr. Turner told me that the results of the experiment were well known to the profession generally; but that he had never seen it demonstrated. I will not swear he said he was there the whole time. Mr. Pitt said he saw the proceedings, and he voted for the proceedings going on, for he had never seen the experiment demonstrated. On looking round the court, witness could not recognise Mr. Pitt; but he pointed to Mr. T. W. Crosse, saying he thought he was the gentleman he saw, but he would not be certain.

Mr. Thomas Joliffe Tufnell said—I reside at Dublin, and I am President of the Royal College of Surgeons in Ireland. On the 13th August last I was present at the Masonic Hall. I was on the way to the Hall, when a gentleman addressed me, and in consequence of what he said I went into the Hall, where I found a number of gentlemen. There was a long table, at one end of which was a white dog fastened down. I spoke to a gentleman near me, and said, "What is going on?" and he replied, "Dr. Magnan of Paris is about to demonstrate the effects of alcohol and absinthe when injected into the veins of the two dogs." I asked if there was nothing more, and the gentlemen replied, "No". I said, "I think that is a cruel proceeding, as it is unnecessarily putting a poor devil of a dog to the pain that one is in." A gentleman opposite said, "That dog is insensible; he is not suffering anything." I said, "The dog is struggling hard to get free. I am a sportsman as well as a surgeon, and I will never see a dog bullied"; so I took a knife and cut the dog adrift, and he jumped upon the table. I said, "Now you see the dog is sensible; and I do not think this is a proceeding at all in character with the Association." I then left the room; but, in consequence of what a person said to me outside, I returned. An altercation then took place, and then Dr. Haughton of Dublin and several other gentleman, protested against it. A vote was then taken, and it was decided that the proceedings should go on. Dr. Magnan then came to the end of the table near where I was, and injected the white dog with alcohol, and it very speedily became insensible. A gentleman said, "Now you see he's insensible." I said, "Yes; and he'll never be sensible again, for he will die." On the contrary, however, Dr. Magnan said I should see it quite well at six o'clock in the evening. I replied, "No, no." Dr. Magnan then went to the other end of the table, and injected the red dog with absinthe. I saw the dog shortly afterwards, and it was then seized with convulsions of an epileptic character. The incision was made in the first dog before I entered the room; and the dog was extended with the nozzle of an injecting tube in the femoral vein. His feet were tied out by tapes, and his mouth was secured. The white dog struggled as much as he possibly could, and I heard the suppressed sounds of crying which dogs make when in pain. It was a cruel thing, because it was unnecessary to make an experiment of that kind, for the experiment might have been carried out in another way less painful to the dog, and, in my opinion, more calculated to demonstrate, through the means of the lower animal, the influence of alcohol and absinthe on man, which, I believe, was the aim of Dr. Magnan. The other means was by throwing these fluids into the stomach through a tube, or, if a dog vomited, into the bowel by means of a tube, and so letting it enter the system. The effect of absinthe and alcohol is known on the human system, and I believe it is generally known by physiologists. I believe the analogy would be much greater if the alcohol were taken by absorption rather than by being injected into the vein.

After an adjournment for luncheon, Mr. Tufnell was cross-examined by Mr. Chittock. He said, Dr. Magnam is not known to me by reputation. I did not know him at the time. I have heard of him since. I never heard of him but in connection with this subject. I know him as a writer on this subject, but do not know what position he holds with respect to it. I have never seen experiments with alcohol and absinthe. I have never heard of similar experiments in this country. There are undoubtedly great results to be derived from experimenting upon the lower animals. A better result is likely to be obtained from a dog, from the fact of its having a more simple stomach—more allied to the human stomach—and, therefore, it is a more desirable animal to experiment upon. I have seen experiments on frogs, but they have been more especially for the instruction of students. These experiments are, galvanising the frog and viewing the circulation. These experiments cause no pain whatever; the animals are first decapitated, and the circulation goes on afterwards.

I do not consider there is any cruelty in decapitation, if instantaneously done. If done for amusement I should say it was cruel. I do not believe the introduction of a tube into the stomach would cause pain to the animal. The stomach is accustomed to receive a variety of things, but the vein only its particular fluid, and therefore the injection into the stomach by means of a tube would not cause pain. Witness knew the effects of absinthe from having partaken of it in the spring of 1854 when with Omar Pasha. He was told by the officers who used it that it produced violent drunkenness. He was not aware, before he saw the experiment, that it would produce epilepsy. This was upon the dog, but he believed the influence upon the individual, whether upon the soldier or the civilian, was violent, and not of an epileptic form of character; but the excessive use of this spirit might produce epilepsy. I am not aware that, owing to the experiments of Dr. Magnan, cases which had been previously treated as apoplexy, were found to be epilepsy, owing to the use of absinthe. I consider those experiments on the lower animals to be severe that are not necessary. Anæsthesia could not be produced in connection with the experiment, and, therefore, to a certain extent, it was severe.

It was stated, in Taylor's *Medical Jurisprudence*, that absinthe produced epilepsy. Sir James Paget was an eminent surgeon; but, I say, if he went to be instructed by that experiment, he would not be an eminent physiologist. I have not written any works on physiology. Sir James has written several. There were about thirty gentlemen in the room at the time of the experiment.

In re-examination, witness said. Assuming that the experiment was necessary, he was of opinion that it was not done with a minimum amount of suffering.

By Mr. Wells—The cruelty consisted in opening the vein in the thigh. I do not consider there would be any difficulty in introducing the stomach-pump into the stomach of a dog. If I had a dog poisoned, I would have the pump used directly, though I have never seen the stomach-pump introduced into the stomach of a dog.

By Mr. Reeve—No anæsthetic could have been introduced into the dog, as the tendency would have been to destroy the effects of the operation.

Sir William Fergusson was the next witness. In answer to Mr. Colam, he said the injection of absinthe into the femoral vein would cause suffering in any animal, but how it would suffer it was impossible to say. The incision would undoubtedly cause pain. As to whether such an experiment would benefit science, Sir William said he was of opinion that it would not, as it was not likely that one person would inject absinthe or alcohol into the vein of another. It was his opinion, that it would be an act of cruelty to fasten a dog down upon a board, to make an incision to insert a tube, and to inject absinthe.

Cross-examined—I have been professor of surgery at King's College. Professor Ferrier was also a professor at this college, and he was considered an able man; but I do not know whether he is in favour of these experiments I do not know that he has experimented on dogs. I do not perform such experiments at King's College; but I believe they are performed for the instruction of students. I was not present when the experiment was made. I have never seen absinthe or alcohol injected into the veins of an animal. Before this experiment, I did not know that absinthe would produce epilepsy, and I do not know it now. I should not be convinced by such an experiment. An epileptic patient might appear to be in great pain, and might be totally unconscious. I have seen cases of epilepsy brought on by excessive drinking in England and Scotland.

As a surgeon, do you consider yourself competent to give an opinion upon physiology?—I should consider a surgeon the best physiologist.

By Mr. Reeve—Do you know of any practical benefit to mankind which might result from such experiments?—I have a very strong opinion that such experiments would not be of the smallest possible benefit.

Professor Pritchard of the Royal Veterinary College, London, agreed with the opinion last expressed by Sir William Fergusson, and concurred generally that it would be an act of cruelty to submit a dog to an experiment in the way described by previous witnesses. In answer to Mr. Chittock, witness said he had castrated animals, but this was a necessary operation, as without it, he was of opinion their masters would be unable to hold them.

Mr. Varnell, formerly professor of the Royal Veterinary College, London, agreed with the previous witness, adding that all experiments were cruel, but this was unnecessary.

Mr. G. Fleming, veterinary surgeon, member of the Court of Veterinary Surgeons, and one of the editors of the *Veterinarian*, said his duty was with the foreign department of that journal, and his duties made him acquainted with the opinions of foreign physiologists, several of whom he named, who had drawn a distinction between the effect of alcohol and absinthe. From witness's knowledge, he should say the experiment was unnecessary, and, therefore, a cruel one, as the results were already known. On being asked to produce an authority for this statement, witness said it was stated in the *Nouveau Dictionnaire* for 1864, that absinthe would produce epilepsy. The result was well known in France.

By Mr. Wells—It is easy to pass the liquid into the animal's stomach by pouring it into its mouth without the aid of the stomach-pump.

Professor Haughton was then called on his subpœna, but did not answer to his name.

Mr. Colam informed the Bench that he had several other witnesses to call, but thought perhaps, he had adduced enough testimony, and would leave the case in the hands of the magistrates.

Mr. Chittock then addressed the Bench in defence, first of all raising the technical objection that no proof had been adduced that the defendants were present at the experiment, or, secondly, though charged as principals, no proof had been shown in support of that fact, or even that they had aided in any way in causing the alleged cruelty. He contended that the summonses only held good in the case of Dr. Magnan, who performed the experiments.

The Bench adjourned to consider the points raised; upon their return into court,

The Mayor said—We think there is no case against Mr. Pitt, and Mr. White. We should like to hear you, Mr. Chittock, with regard to the other defendants.

Mr. Chittock said he thought this would be the proper time to ask for an adjournment.

The Mayor then announced that the case would be adjourned till eleven o'clock next morning.

(*By Telegraph.*)

The hearing of the case was resumed on Thursday morning.

Mr. Chittock addressed the magistrates on behalf of the two remaining defendants. He said he should prove that the defendants were not present, and therefore the case must be dismissed.

Dr. Beverley said he made arrangements for the dogs to be supplied for the purpose of the experiments, and considered experiments justifiable, especially at a congress of medical men. The results tend to prevent people drinking absinthe.

Dr. Bateman said that before these experiments were made, he did not know that absinthe would cause epilepsy. The experiments were quite justifiable, and great good would result, especially as the subject of epilepsy is now more than usually engaging the attention of physiologists. Any experiments calculated to throw light upon the disorders of the cerebral functions must lead to beneficial results.

Dr. Eade said that, considering the occasion, also that it was a very great fact which Dr. Magnan sought to demonstrate, and, further, considering that the operation need not be a severe one, he expressed his opinion that the experiment was justifiable. The use of absinthe was increasing; a wine-merchant's circular was sent to him the other day, containing quotations of absinthe. The experiments showed that absinthe was a dangerous diet, although he knew, before the experiments were made, that it would produce a violent form of drunkenness, and that its continual use would cause decay of the brain.

Dr. Copeman, President of the British Medical Association, said—He did not protest against the experiments being made, although he did protest against the presence of laymen. He thought that experiments were justifiable and necessary. From them he had learned the fact that absinthe will produce epilepsy, which fact would be of great service to medical men, and would also tend to the non-employment of absinthe in the distillation of whiskey, which he believed was the case in Scotland. In cross-examination, he said he was quite certain that epilepsy was produced by absinthe, and but for these experiments he might not have believed it. He did not think the experiment need ever again be repeated in England. He repudiated as strongly as any one the infliction of unnecessary cruelty upon animals, and he wished the society, instead of taking up a case of this kind, would turn its attention to cases of cattle being beaten and knocked about in the market of Norwich. He did not consider the experiments cruel, but he stopped them because there were those present who did not understand them. He believed that good would be produced in many ways by the experiments.

Mr. Cadge said he went into the room with Sir James Paget, who was appealed to by Mr. Knight Bruce to put a stop to the experiment, because it shocked his feelings as a British sportsman. Sir James looked at the dogs, and said he was not a sportsman, but the dogs were fully and perfectly insensible, and the experiment, so far as he understood it, was of a nature calculated to teach a lesson most important and useful to man, and that, compared with the general run of operations and experiments, this was not a cruel one; that it was done with a high and worthy motive, whereas the sportsman probably killed and mutilated birds and animals for his own pleasure. Witness fully concurred in that opinion; he believed that increase of knowledge, both of medicine and physiology, would result from the experiments. The experiments having been performed before a number of highly respectable medical men, it would not be necessary to repeat the experiment.

Mr. W. P. Nicholls said that, as an operative surgeon and a student of physiology, he believed Dr. Magnan's experiments to be both proper and right, and not cruel.

Mr. Firth said that the results of these experiments would tend to enlarge the field of information on the physiological action of alcohol and absinthe. The information imparted by the experiments was not before generally known to the profession.

Mr. Allen said he was present when the experiments were performed. The operation was beautifully performed. He did not see either of the defendants in the room at the time.

Mr. Nockall, a dispenser employed by Mr. Robinson, also proved that that gentleman was not in the room.

Mr. Smith, veterinary surgeon, who supplied the dogs, said he considered vivisection barbarous and cruel; but he believed the dogs could not be harmed, or he should not have supplied them. He saw the experiments, and was not at all sure that a fit of real epilepsy was caused by absinthe. One dog died, and the other recovered, and was as well as ever next day.

The magistrates dismissed the case, as it was not proved that the defendants took any part; but they thought it a proper case for the Society to prosecute. Costs were disallowed.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

The New Infirmary.—Fever Accommodation.—Health of Edinburgh.—Illegitimate Births in Scotland.—Maternity Hospital.—Illness of Dr. Sanders.—Hospitals for Incurables.—Royal College of Physicians.—The Chair of Natural History.—Dr. Keith on Ovariotomy.—Hydrate of Chloral as an Antiseptic.—The Meeting of the Association in Edinburgh.

THE building of the new infirmary continues to make progress, though the advance is but slow. The medical house is almost complete as far as external formation is concerned; and operations have begun upon George Watson's Hospital, which is to form the staple or central part of the building, where the general offices and administrative departments will be situated. The surgical house has not yet advanced further than the foundations. It is understood that want of available funds is the cause which prevents the work from being pushed on with more vigour. Thanks to the numerous large and valuable legacies which have, within the last year or two, been left to the institution, there is an unusual amount of money in hand, but this is not available for building purposes without a special Act of Parliament, owing to the stringency of the present charter as to the use and employment of the various funds. Until quite lately, there has been a natural unwillingness on the part of the managers to appeal to Parliament, as, in case of failure, the costs of the application might have been thrown upon them as individuals, in the same way as the costs of the late Water Bill were thrown upon its promoters. Some trust-funds have, however, recently been left, we understand, for the express purpose of obtaining an Act of Parliament to alter the charter as desired. When this has been done, we hope to see the building make rapid strides towards completion.

The question of fever-accommodation in the new hospital has given rise to a good deal of discussion between the authorities of the town and the infirmary managers. The former wish to throw the whole burden of providing accommodation for fever-cases upon the infirmary, and, in consideration of the amount the town has subscribed towards the building fund, desire to have a hundred beds available for fever-cases, if required. Fifty of these beds, they say, could be used for ordinary cases, except during an epidemic, when they could be transferred to fever purposes. The infirmary authorities, on the other hand, deem it to be the duty of the town to provide for its excess of fever in cases of epidemic attacks, and urge that the infirmary is not to be made into a pest-house. Of course, the using of a number of wards at one time for fever and at another for ordinary cases is quite out of the question. They will devote fifty beds for the ordinary average, so to speak, unavoidable run of fever cases, but beyond this we understand they refused, at a late meeting, to go.

From the recently published quarterly report of the Registrar General, it is seen that the health of Edinburgh for the past quarter, ending 30th September, has been unusually good, the mortality reaching 196 per 10,000 persons; that of the whole of Scotland being 209; while in Dundee the death-rate was 329; in Glasgow, 280; and in Leith, 262; the only town of any importance lower than Edinburgh being Aberdeen, 173. There has been over the whole country a large death-rate from zymotic diseases, more particularly scarlet-fever, the death-rate of the eight principal towns showing more than one-third of such diseases.

The record of illegitimacy for the quarter shows a very curious result. In Banff, the percentage of illegitimate births reaches 20.1; in Elgin, 18.0; while in the closely adjoining county of Nairn it falls as low as 1.6—the percentage over the whole county being 8.7.

The affairs of the Maternity Hospital here have long been in an unsettled condition. Want of funds has seriously embarrassed its efforts and crippled its usefulness; it has been compelled to vacate one place after another, and the work is at present carried on in what was once a private house in St. John's Street. Here, the rooms and arrangements generally are inconvenient and unsuitable for the purposes of a maternity, and the space is very inadequate. On Monday week, an important and influential meeting was held under the presidency of Lord Craighill, in the unavoidable absence of the Lord Provost, with a view to remedying this state of things. It is proposed to collect funds to build a new maternity on some site to be hereafter acquired, and to make it an institution more worthy of the city of Edinburgh and its medical school than it has hitherto been enabled to be. It is suggested that part of the subscriptions which were raised for a memorial to the late Sir James Simpson shall be handed over to the maternity fund, that his name shall be permanently connected with the institution. A sum of £2,000 is mentioned as likely to come from that source. The whole building is estimated to cost £12,000 at least, but it is hoped that a larger sum may be raised. A just tribute was paid at the meeting to the good work which is still being done by the present maternity in relieving the poor, instructing the students, and educating a body of thoroughly competent nurses.

I regret to say that Professor Sanders has been for some time confined to his bed by an attack of pelvic inflammation similar to the one he suffered from last winter, but he is now slowly recovering. His class at the University is being carried on in the meantime by his assistant, Dr. Blair Cunynghame.

After much talk and a good deal of heartburning, arrangements have now been completed between the two Committees of Edinburgh and Glasgow for working in common towards the establishment of two hospitals for incurables, and energetic steps are being taken in the matter. The first subscription list will be published in a few days. Institutions of this kind are much needed here, as there are none of any size in Scotland at the present time.

At a meeting of the College of Physicians, held last week, Dr. Lowe was re-elected President for the ensuing year; Dr. John Wyllie was elected Secretary in the place of Dr. Rutherford Haldane; and three Surgeons, Dr. Watson, Mr. Annandale, and Mr. Joseph Bell, were added to the list of Examiners for the College, as it is the intention of the authorities in future to examine in surgery any candidate who may come before them without being possessed of a surgical diploma.

It is rumoured that Professor Huxley is to be asked to undertake the work of delivering the course of lectures in Natural History in the University next summer, in the room of Professor Wyville Thomson, who is away, in charge of the scientific work being done in the *Challenger*. Should this be the case, and should Professor Huxley accept the offer, he will be sure to meet with a most hearty welcome from students, young and old.

At the meeting of the Medico-Chirurgical Society last week, among other interesting specimens which were exhibited, was one by Dr. Thomas Keith, namely, an ovarian cyst with an exceedingly thin wall, which he had removed from a patient who was five months pregnant. She was doing well. Dr. Keith mentioned, in the course of his remarks, that he had now performed ovariotomy 196 times, and that during the last three years his mortality has been only ten per cent.

Dr. Heron Watson has been lately making extensive trial, in his wards in the Royal Infirmary, of hydrate of chloral as an antiseptic and disinfectant. It is used in the form of an aqueous solution of about five grains to the ounce, and also as an ointment combined with paraffin, white wax, and almond oil. It answers the purpose admirably, and is found to be a non-irritating application, while at the same time it cleans and heals sores and keeps down the bad smell. It is also being tried as a preservative solution for pathological specimens, and appears likely to be very useful for that purpose; but there has not yet been sufficient time to test it thoroughly.

The first meeting of the Executive Committee appointed to prepare for the Annual Meeting of the Association next August is to be held on Monday next, when it is expected that the business arrangements will be fairly set going. The Local Secretaries are receiving promises of support and assistance from almost all of the leading medical men of the city and neighbourhood.

ASSOCIATION INTELLIGENCE.

MIDLAND BRANCH.

A SPECIAL general meeting of the Branch will be held in the Board Room of the County Hospital, at Lincoln, on Friday, December 18th, at 7 P.M.; T. SYMPSON, F.R.C.S., President; A. H. DOLMAN, M.R.C.S., President-elect.

Business.—To elect an Honorary Secretary and Treasurer for the Branch, and eight ordinary Members of Council, according to Rules 7 and 8; to elect an Honorary Secretary for Nottinghamshire; to elect new Members, and transact other business.

The laws governing the Branch, passed at a general meeting held at Boston, on 24th September, were confirmed at a meeting of Committee of Council held at Birmingham on November 4th.

In order to facilitate arrangements, members intending to be present are requested to communicate at once with

C. HARRISON, M.D., *Honorary Secretary.*

Lincoln, November 28th, 1874.

REPORTS OF SOCIETIES.

MANCHESTER MEDICAL SOCIETY.

OCTOBER 7TH, 1874.

J. E. MORGAN, M.D., President, in the Chair.

Case of Cyanosis.—Dr. LEECH brought before the Society a young man aged 24, with cyanosis, which had existed since he was five months old. He was subject to attacks of syncope and dyspnœa, but was not precluded from following an occupation. He had hypertrophy of the lips and congestion of the nose. There was hypertrophy of the left side of the heart, with a *bruit* which was heard most distinctly in the fourth left intercostal space near the sternum. The *bruit* was very limited, and was intensified during an inspiratory act. In addition, the patient had abnormality of the ribs on the left side. Dr. Leech believed a communication between the two ventricles to exist. —In conjunction with the above case, Dr. Leech also showed a case of cyanosis which had been before the Society at a previous meeting, and in which there was pulmonary stenosis.

Malignant Tumour of Cerebellum.—The PRESIDENT showed a malignant tumour of the cerebellum. The patient, aged 45, was admitted into the Royal Infirmary on February 16th. The chief symptoms were dizziness, constant cephalalgia, vomiting, and obstinate constipation. Sometimes he would remain without evacuations for nine days. There was also double optic neuritis. The patient died comatose. On *post mortem* examination, a tumour of the size of a pigeon's egg was found involving the left cerebellar lobe, encroaching on the corresponding side of the medulla so as almost to obliterate it, and extending into the fourth ventricle. The tumour was contained in a distinct sac, which had a delicate lining membrane, and out of which a quantity of apparently puriform fluid escaped. This, when examined microscopically, consisted of granules, and cells of various sizes with granular contents. The harder portions of the tumour were made up of cells of rounded shape, and containing one or more nucleolated nuclei. These cells were separated by fine intercellular substance, and were closely packed in spaces formed by the blood-vessels.

Medicinal Paint.—Dr. RANSOME showed a form of paint for medicinal uses which he had extensively tried, and found very efficacious.

Myxoma of Parotid Region.—Mr. LUND showed a myxomatous tumour removed from the parotid region. It was situated over the masseter muscle to some degree, was slightly movable, and was said to have existed twelve months. No cause could be assigned; no blow, nor tendency to hereditary cancer. The tumour was removed on July 28th by a nearly horizontal incision. No special vessels were divided. There was slight oozing hæmorrhage. A small portion of the socia parotidis was removed, attached to the tumour. There was slight facial paralysis after the operation. This had, however, almost entirely disappeared under faradisation. Microscopically, the tumour consisted of stellate cells, their fine processes forming a network. There were also groups of rounded nucleated cells.

Sarcoma of the Iris.—Dr. DRESCHFELD exhibited a sarcomatous tumour of the iris, and showed microscopical sections. He remarked on the extreme rarity of this kind of tumour in this situation, and referred to certain peculiarities of several of the sections, which threw some light on the etiology of the growth.

Cranio-tabes.—Dr. SINCLAIR made a few remarks on a case of cranio-tabes, and showed a specimen.

Treatment of the Fœtus.—Dr. THORBURN read a paper entitled Suggestions towards the Medicinal Treatment of the Unborn Child. It will be published *in extenso* in the forthcoming volume of the *Manchester and Liverpool Reports.*

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

INCREASE OF SALARY OF A POOR-LAW MEDICAL OFFICER.

THE medical officer of the Cardiff Workhouse, Dr. Sheen, has recently, after five years' service, had his salary increased from £104 to £120 *per annum*, the guardians undertaking at the same time to provide all drugs, etc., for the house in future. We are glad to note the recognition of a principle we have always strongly contended for; namely, that the medical officer should be remunerated for his professional services alone, and should be relieved of the iniquitous burden of having to provide drugs, etc., for the sick poor under his care out of his usually insufficient salary. We are informed that the Cardiff Board of Guardians have, within the past two years, erected a hospital, to accommodate 120 patients, on the most recently improved principles of hospital construction; and it gives us considerable pleasure to record such acts of consideration for the sick poor, and of generosity towards their medical officer, on the part of Poor-law guardians, who are usually only too slow to recognise their duties in these two directions.

MILITARY AND NAVAL MEDICAL SERVICES.

THE vacancy as head of the Statistical Branch of the Army Medical Department, created by the death of Deputy Surgeon-General A. Barclay, M.D., has been filled by the appointment of Deputy Surgeon-General Sir A. D. Home, K.C.B., V.C., who served in the Eastern Campaign of 1854-55 with the 8th and 13th Hussars, including the battle of Alma, siege and fall of Sebastopol (medal with two clasps and Turkish medal); decorated with the Victoria Cross for persevering bravery and admirable conduct in charge of the wounded men left behind the column when the troops under General Havelock forced their way into the Residency of Lucknow on the 26th September, 1857 (medal with clasp and a year's service); served in the New Zealand campaigns of 1863-65 (C.B., special promotion to the rank of surgeon-major and medal).

MOVEMENTS OF ARMY MEDICAL OFFICERS.—Surgeon J. S. Gunn, M.B., doing duty 13th Bengal Lancers, assumes medical charge of the 11th Bengal Lancers, at Meean Meer.—Surgeon H. Kay M'Kay, doing duty in the Presidency General Hospital, assumes medical charge of the 44th N. I. at Debrooghur.—Surgeon F. J. Tuohy, M.D., is appointed to the officiating medical charge of the 12th N. I.—Surgeon H. Whitwell, assumes medical charge of the 11th Bengal Lancers, in addition to his other duties.—Surgeon W. E. B. Moylan, M.D., proceeds to Bareilly, and assumes medical charge of the 11th N. I.—Surgeon-Major N. B. Baillie, assumes medical charge of the 4th N. I., as a temporary measure.—Surgeon-General Gordon, M.D., C.B., has assumed the duties of principal medical officer in Madras, *vice* Surgeon-General S. Currie, M.D., C.B., moved to Simla.

NAVAL MEDICAL APPOINTMENTS.

ADAMS, Staff-Surgeon Archibald, to the *Excellent.*

BERNARD, Staff-Surgeon John, to the *Royal Adelaide*, for service with the Plymouth division of Marines.

BIDDULPH, Staff-Surgeon Robert W., second class, to the *Asia.*

DOBBYN, Staff-Surgeon J. S., second class, to the *Duncan*, additional, for service at Yarmouth Hospital.

DR. DE CHAUMONT'S PAMPHLET ON THE PECUNIARY VALUE OF THE EMOLUMENTS AND PENSIONS OF ARMY MEDICAL OFFICERS.

SIR,—As I take a very different view of the probable effects of Dr. De Chaumont's pamphlet from that which your two correspondents in the JOURNAL of December 5th have taken, I send you a few lines on the subject. I may observe, *en passant*, that your first correspondent, at page 723, misquotes the author, who, he says, "concludes by asserting that the medical officers are 43 per cent. better off than they were under the warrant of 1804, and 18 per cent. better off than they were under the warrant of 1840". Your correspondent seems either to be not accustomed to estimating the value of figures, or has regarded them very superficially in the present instance. Dr. De Chaumont's conclusion is by no means what is attributed to him. To quote his own words, he says: "The *apparent* gain by the *warrant of* 1840 *over that of* 1804 was equal to a ratio of about 18 per cent.; whilst the *apparent* gain under the existing warrants over that of 1804 is equal to a ratio of about 43 per cent." Without dwelling on this misquotation, however, it has evidently not been the aim of Dr. De Chaumont to go into the question of the relations between the apparent gain and the real gain in the different rates of pay and allowances, as your correspondent has done, who has taken his year's income by itself, without reference to prospective or other advantages, and then compared it with his regimental and domestic expenditure. No doubt, this is a very practical and important matter, and well worth the consideration of all medical officers, especially those who are attached to regiments voluntarily or otherwise, but it has little to do with the object put forth in the pamphlet. The object there is, as the writer states, to arrive at a fair approximation to the actual truth regarding the value of the prospects of medical officers *on entering the service* in respect to their pay and allowances, and chances of promotion. If Dr. De Chaumont has achieved this, he has effected a real good, for he has substituted precise for loose and valueless statements on the subject; if he has failed, there must be something wrong in his figures, and these errors ought to be pointed out if any one can do so. I have gone through them carefully, and confess I cannot find any flaw in them. We may be quite sure that the pamphlet has not divulged any secret that the accountant's branch of the War Office and the Treasury were not aware of before, or would not discover for themselves on any question of increasing our pay beyond what was given in the last warrants coming before them. It would be acting as the pursued ostrich is said to act, if we supposed we should gain anything by making our prospects in respect to pay, emoluments, and chances of promotion, appear to be worse than they really are. It is better for ourselves to know the exact truth, and the nature of the ground on which we are taking our stand.

I feel assured that the facts put forward in the pamphlet must lead to an improvement in the pay and allowances of medical officers. Its author has shown that there is a death-rate among us that few were aware of before; that this death-rate, which is far greater than the death-rate in civil life for corresponding ages, has been going on steadily for many years past, and is still continuing. He has shown this, not by any general statements, but by exact figures; and he has put the fact in such varied forms that it must attract attention, and must hereafter prove one of the strongest arguments for increased remuneration to compensate us for the hazardous nature of our service. Another point that Dr. De Chaumont has brought forward, in a way that cannot be evaded, is the smallness of the chance that each medical officer has, on joining the department, of promotion to the administrative ranks—a chance of only about 1 in 30, or, regarding it from a money point of view, only equal in value to about £6 or £7 *per annum.* These and other matters, which it would add to the length of this already too long letter to enter upon now, must, in my opinion, show that the apparent gain by the last warrants, which Dr. De Chaumont has brought to a settled figure, is not an adequate one to meet the just claims of the medical officers, and that, in consequence, the pay and allowances must be increased if skilled physicians and surgeons are to be attracted to the service and to be retained in it.

I am, etc., ARMY MEDICAL OFFICER.

SIR,—I desire to correct some inaccuracies in the statements of your correspondents who have done me the honour to comment upon my paper on the "Pecuniary Value of the Emoluments and Pensions of Army Medical Officers". They say that I have asserted that the medical officers are now 43 per cent. better off than in 1804, and 18 per cent. better off than in 1840. A reference to the paper will show that this is erroneous. What I have stated is, that the *nominal* or *apparent* gain of 1840 over 1804 was 18 per cent.; of the present time over 1804, 43 per cent.; and of the present time over 1840, 21 per cent. In no part of the paper have I said or hinted that the medical officer was *better off;* indeed, I have been careful to call the gain *nominal* or *apparent.* That I have not gone further into the question of the value of money or the comparative value of emoluments in civil life, is simply because I was unsupplied with data for the purpose. The paper professes to deal with facts and not with conjectures. Perhaps, if your correspondents had taken the trouble to read it carefully, and above all to understand it, they would have been less hasty in their adverse criticism, and would have hesitated before descending to personalities and imputations of base and unworthy motives. I confess to having seen these attacks with some surprise, coming as they do from the very men whose cause I had hoped to benefit. I am, etc.,

December 7th, 1874. F. DE CHAUMONT.

THE ARMY HOSPITAL CORPS.

WE have reason to believe that the suggestions contained in Surgeon-General Mouat's pamphlet, *Proposals for the Reintroduction of the Regimental System in a Modified Form*, have been very favourably received by many army medical officers. It is thought by some of the army medical officers that, if its suggestions were carried out in their entirety, or even partially, the discontent now existing in that department would be removed. One of our correspondents remarks, in relation to the paragraph in Dr. Mouat's pamphlet on the formation of the Army Hospital Corps, that, up to the present time, all plans formed to this end have failed; direct enlistment having proved the most lamentable failure. He, therefore, proposes that every company of infantry, Royal Engineers, and Army Service Corps, and every troop and battery of Royal Artillery and cavalry, shall maintain one trained orderly; that this man, as required, shall be employed in the hospitals, and, when so employed, shall receive the extra pay of a hospital orderly, and shall at other times perform the ordinary duty of a soldier; also that these men should become the non-commissioned officers of the Army Hospital Corps, and be ultimately promoted to the warrant rank, as proposed by Dr. Mouat's scheme. Our correspondent believes that this plan would secure a larger Army Hospital Corps than has ever yet been provided, and one that would prove sufficient for the requirements of the Army in time of war. It would also be an inexpensive education, on the basis that men of not less than two years' service should be trained at Netley. The retention of the old regimental hospital sergeant is of course contemplated in the scheme, and a man who is a certificated compounder of medicines should, under all circumstances, receive the extra shilling a day.

CIVIL EMPLOYMENT OF RETIRED MEDICAL OFFICERS.

SIR,—Some years ago, it was suggested that, to encourage men to enlist as soldiers, Government would act wisely by letting all whom it might concern know that they would, as far as possible, give the preference to discharged soldiers, of good character, for all minor appointments in the gift of Government, provided the candidates were fitted in every respect for the post. This plan has, I believe, worked admirably; so much so, that I am anxious to know whether the same system might not, with advantage, be extended to the military and naval medical professions. There are, if I am not mistaken, many civil medical appointments in the gift of Government for which I am sanguine enough to think that retired military and naval surgeons are, by their training, more or less admirably fitted; for instance, medical officers of convict prisons, medical inspectors of factories, surgeons to gaols, Admiralty surgeons at various seaports, also in charge of hospital ships for sick merchant seamen, medical officers of health, and many others, for appointment to which the preference might be given to retired military and naval surgeons, etc., and to those who, unfit for further "foreign" service, might wish to retire, provided always the candidate was in every respect fitted for the post; and I am quite sure the profession will agree with me, that a medical man who has served his country zealously and well, in all climates and in all dangers, is worthy of some consideration. Up to the present, it appears to me to be the rule to work military and naval surgeons until quite "worn out", then put them on half-pay when no longer able to work. If a new system were adopted as above, it would, I am convinced, prove highly beneficial to Her Majesty's military and naval medical service; for instance, men of twenty years' service and over might be induced to take a civil appointment under Government and retire on half-pay, thus creating a flow of promotion; secondly, greatly increased inducement would be held out to young medical men to enter Her Majesty's service; thirdly, it would enable Government to lay their hands on a "reserve" of experienced military and naval surgeons for home service in the event of invasion or great emergency; fourthly, it would go some way towards bridging over the gulf which at present appears to separate civil from military and naval medical officers. I am, etc., SURGEON-MAJOR.

NAVAL SURGEONS: RELATIVE RANK.

SIR,—The following case in instance very fully evidences the anomaly of our present relative rank in the service; and I should like to call the attention of the Admiralty towards the same, in the hope that it may awaken them to the fact that in the question of relative rank we really labour under a substantial grievance, and have a very just cause for complaint.

Three of us entered at an university in 18—, graduating in arts together. My two friends left to enter the service—one as a chaplain, the other as a naval instructor, with the rank of lieutenant on entry. To qualify in medicine, I continued my studies for four years longer, until I had obtained my degree of M.D. Then, passing into the navy and receiving my commission, I found that my fellow graduates held the rank of lieutenant with four years' standing, I entering with sub-lieutenant's rank; consequently, they were my seniors by ten years. The consequence of my remaining for four years longer at my university to obtain a higher qualification results in a loss to me of ten years' time.

I remain, without further comment, yours, etc., M.D., R.N.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

OPEN SCHOLARSHIP IN NATURAL SCIENCE.—On Tuesday, January 26, an examination will commence in the hall of Exeter College, for the purpose of selecting a scholar in Natural Science. The scholarship is of the annual value of £80, and is tenable for four years from the date of election. Candidates are not disqualified by any limit of age, and will be examined in biology, chemistry, and physics. Special knowledge is not expected of more than one of the above subjects, and preference will be given to a candidate who excels in biology or one of its branches. The candidate selected will have to satisfy the electors that he has sufficient classical and mathematical knowledge to enable him to pass responsions, and will be expected to read for honours in biology in the Natural Science School. Candidates are requested to call on the rector between the hours of 4 and 5 p.m., or 8 and 9 p.m. on Monday, January 25th, bringing with them certificates of birth and testimonials of character. It is further requested that candidates will at once communicate with Mr. Ray Lankester, Fellow and Lecturer in Natural Science at Exeter College, stating the extent and direction of their studies in natural science up to the present time.

UNIVERSITY OF CAMBRIDGE.

EXAMINATIONS IN STATE MEDICINE.—The Vice-Chancellor presided at a meeting of general members of the senate, held on December 3, for the consideration of the report of the Board of Medical Studies. There were but few members of the senate present. With regard to the part of the report proposing the institution of an examination in State Medicine, the Vice-Chancellor said that of late great public interest had been evinced in this matter, and the duty and responsibility of the general sanitary board had been great indeed. The public had felt that some guarantee of the capability of the officers was required, and it was now proposed to establish this guarantee by means of university examinations. One feature of the report, he thought, was a good one, namely, that it proposed to admit to the examinations not only members of the university, but candidates from elsewhere. He was sure that the small attendance was not to be taken as evincing a want of interest in this subject, but rather as a feeling of general confidence in, and agreement with, the propositions of the board. Professor Humphry said it was but courteous to state that he had received by letter some objections from a graduate in medicine at Cambridge to the examinations being thrown open to all medical practitioners. That course had not been recommended by the board until after the most mature consideration. The persons appointed to the offices under consideration would exercise large legal functions, and the board felt that if the examination was confined to members of the university strictly their exertions in favour of the object proposed to be achieved would be rendered nugatory. It should be observed that this examination gave no grade or title, but merely a certificate. The only effect would be the extension of university influence over those who had not the opportunity and privilege of residing within the precincts of the university. He looked upon the extension of this influence as the most important need of the future, and thought that the university could achieve in this way was really incalculable. The board sought to establish this influence only so far as the faculty of medicine was concerned over the whole country. The Vice-Chancellor undertook to convey the tenor of the observations made to the syndicate.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—M.D. Examination.
Addy, Boughton, St. Thomas's Hospital
Barfoot, George Harry, University College
Barlow, Thomas, B.S., B.Sc., University College
Bomford, Gerald, King's College
Cockburn, John Alexander (Gold Medal), King's College
Colgate, Henry, B.S., University College
Coupland, Sidney, University College and Middlesex Hospital
Dyson, William, B.A., University College
Gibbings, Alfred Thomas, King's College
*Greenfield, William Smith, B.S., University College and St. Thomas's Hospital
Harris, James Alfred, University of Edinburgh
Mackey, Edward, Queen's College, Birmingham
*Skerrit, Edward Markham, B.S., B.A., University College
Vachell, Charles Tanfield, King's College

Logic and Moral Philosophy only.
Buck, Thomas Alpheus, Guy's Hospital
Dukes, Clement, B.S., St. Thomas's Hospital
Perkins, Charles Edward Steele, Guy's Hospital
Yeo, Isaac Burney, King's College

B.S. Examination. Pass List.

First Division.
Duncan, Peter Thomas, University College
Gould, Alfred Pearce, University College

Second Division.
Crocker, Henry Radcliffe, University College
Houghton, Walter Benoni, University College
Pope, Harry Campbell, Liverpool Royal Infirmary and University College

* Obtained the number of marks qualifying for the Medal.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College having undergone the necessary examinations for the Fellowship, at meetings of the Court of Examiners on November 26th, 27th, and 28th, were reported to have acquitted themselves to the satisfaction of the Court; and, at a meeting of the Council, on the 10th instant. were admitted Fellows of the College, viz.:—

Messrs. Frederic Bowremean Jessett, L.S.A., Erith, Kent, diploma of membership dated December 20th, 1858, of University College; Arthur Fergusson McGill, L.S.A., Park Square, Leeds, November 18th, 1868, of King's College; Gustavus Hartridge, L.R.C.P.Lond. and L.S A., Staplehurst, July 22nd, 1872, of King's College; and Edward Charles Stirling, M.A. and M.B.Cantab., Queen's Gardens, Hyde Park, July 23rd, 1872, of St. George's Hospital.

Six candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months.

At the same meeting of the Council, the following members were admitted Fellows by election, viz.:—

Messrs. Charles Derby Waite, M.B.Cantab. and M.R.C.P.Lond., Old Burlington Street. diploma of membership dated October 2nd, 1829; and Thomas John Starling, L.S.A., Higham Ferrers, Northampton, July 19th, 1841.

Mr. Henry Figgins, L.S.A., Sharrow, Sheffield, July 20th, 1840, was admitted a Fellow by election.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABERYSTWITH INFIRMARY—Surgeon.

ABBEYLEIX UNION—Apothecary for the Workhouse. Salary, £30 per annum. Applications on or before the 15th instant.

ALVERSTOKE LOCAL BOARD—Medical Officer of Health. Salary, £40 per annum. Applications on or before the 15th instant.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon: £80 per annum, board and residence. Applications on or before December 14th.

ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.

AXBRIDGE UNION—Medical Officer for the Second District. Salary, £30 per annum.

BAILIEBOROUGH UNION, co. Cavan—Medical Officer for the Kingscourt Dispensary District. Salary, £80 per annum, and fees. Applications on or before the 16th instant.

BASFORD UNION—Medical Officer for No. 1 District. Salary, £40 per annum.

BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.

BRIDGWATER INFIRMARY—Dispenser. Salary, £40 per annum, with board, lodging, and washing. Applications to be sent to Mr. E. Lilley, the Honorary Secretary, Bridgewater.

BRIDGWATER UNION — Medical Officer for No. 2 District. Salary, £70 per annum.

CARLISLE FEVER HOSPITAL—Resident Medical Officer. Applications to the Clerk of the Urban Sanitary Authority, Carlisle.

CASTLEBAR DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.

CASTLE WARD UNION—Medical Officer for the Ponteland District. Salary, £20 per annum. Also, the Workhouse. Salary, £30 per annum.

CHORLTON UNION —Resident Medical Officer. Salary, £250 per annum.— Assistant Medical Officer. Salary, £120 per annum. Residence and attendance to each officer. Applications on or before the 22nd instant.

DUNDEE ROYAL INFIRMARY—Resident Medical Officer. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 30th instant.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road—Physician. Applications to be sent on or before January 1st next.

FARINGDON UNION—Medical Officer and Public Vaccinator for the Shrivenham District. Salary, £70 per annum, with fees. Will also have to undertake the duties of Medical Officer of Health for the District. Salary, £10 per annum Applications on or before the 15th instant.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

GLOUCESTER INFIRMARY—Surgeon and Assistant-Surgeon. Applications on or before the 31st instant.

GRAVESEND and MILTON UNION—Medical Officer for the District of Milton, and that portion of the Workhouse belonging to the parish of Milton. Salary, £70 per annum, and fees. Applications, on or before the 16th instant, to W. J. King, King Street, Gravesend.

GREAT NORTHERN HOSPITAL, Caledonian Road—One Physician and one Surgeon. Applications to be sent in on or before January 12th, 1875.

HANTS COUNTY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to the Medical Superintendent, on or before the 22nd instant.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.

MALE LOCK HOSPITAL—House-Surgeon.

MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.

MORVEN (Parish of), Argyleshire—Medical Officer. Salary, £100 per annum. Testimonials to be sent in on or before the 30th December, to H. A. Fraser, Morven, Fort William, N.B.

NEWCASTLE-UPON-TYNE BOROUGH LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before the 26th instant.

NORTH-EASTERN HOSPITAL FOR SICK CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £100 per annum, with attendance, rooms, coals, and light.

NOTTINGHAM GENERAL HOSPITAL—Physician. Applications to be made not later than the 16th instant.

NOTTINGHAM FRIENDLY SOCIETIES' MEDICAL INSTITUTION—Resident Medical Officer. Salary, £225 per annum, with residence, coal, and gas. Applications not later than the 17th instant to Mr. J. Lee, Upper Eldon Street, Swinton.

PLOMESGATE UNION—Medical Officer of Health. Salary, £100 per annum. Applications on or before the 26th instant.

POPLAR and STEPNEY SICK ASYLUM DISTRICT—Dispenser. Salary, £2 : 2 a week. Applications to be sent in on or before the 14th instant.

PLYMOUTH UNION—Medical Officer for No. 3 District.

RATHMINES DISPENSARY—Apothecary: £50 per annum.

RICHMOND (Surrey) UNION—Medical Officer for the Richmond District. £100 per annum.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN—Assistant to Extra Physician. Salary, £52 : 10 per annum. Applications on or before the 16th instant.

RYDE DISPENSARY—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

SCARBOROUGH UNION—Medical Officer for the Sherbrum District. Salary, £30 per annum

SEVENOAKS UNION—Medical Officer and Public Vaccinator for No. 2 District. Salary, £70 per annum.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY — House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing

STRATHKINNESS, Village and District of—Medical Officer. Salary, £10 from Parochial Board, with £110 from a workmen's club, exclusive of midwifery fees. Apply to Mr. A. Cowper, Kincaple, Cupar Fife.,

SWANSEA URBAN AND PORT SANITARY DISTRICT — Medical Officer of Health. Salary, £200 per annum, and fees.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

WESTERN GENERAL DISPENSARY, Marylebone Road—Physician in Ordinary. Honorary Physicians must be Fellows or Members of the Royal College of Physicians of London, and duly registered. Applications must be made to the Secretary on or before December 14th.

WEST RIDING ASYLUM, Wakefield—Assistant Medical Officer and Pathologist.

WOOLWICH UNION, Kent—Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £60 per annum, with board, lodging, and washing. An additional salary of £20 per annum will be given for dispensing for the poor of the Plumstead District.

WORCESTER DISPENSARY and PROVIDENT MEDICAL INSTITUTE—Acting Medical Officer.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Benham, William T., M.D., appointed Physician-in-Chief to the Chilian Government Asylum, Santiago.

Budd, William A., L.R.C.P.Ed., appointed Surgeon to the Exeter Dispensary, *vice* J. W. Harris, M.R.C.S.Eng., resigned.

Clark, Henry E., L.R.C.P.Ed., appointed Dispensary Surgeon to the Royal Infirmary, Glasgow, *vice* J. Paterson, M.D.

Deeley, William, Esq., appointed House-Surgeon to the Malton Dispensary, *vice* George Colby, M.R.C.S., resigned.

Harris, John W., M.R.C.S.Eng., appointed Consulting-Surgeon to the Exeter Dispensary.

Hepburn, David, L.D.S.R.C.S.Eng., appointed Dental House-Surgeon to the Dental Hospital of London, *vice* Gibbings, resigned.

Hughes, Posthumus W., L.R.C.P.Ed., appointed House-Surgeon to the Carmarthen Infirmary, *vice* R. Williams, L.R.C.P.Ed., resigned.

Laurie, James, M.D., appointed Dispensary Physician to the Royal Infirmary, Glasgow, *vice* M. Charteris, M.D.

Lothean, John A., M.D., appointed extra Dispensary Surgeon to the Royal Infirmary, Glasgow, *vice* H. C. Cameron, M.D.

McEwen, William, M.D., appointed Dispensary Surgeon to the Royal Infirmary, Glasgow, *vice* J. Dunlop. M.D.

Mather, George R., M.D., appointed Dispensary Physician to the Royal Infirmary, Glasgow, *vice* A. Lindsay, M.D.

Monteith, James M., M.B., appointed Visiting Medical Assistant to the Newcastle-upon-Tyne Dispensary.

Paley, James H., L.R.C.P., appointed Resident Medical Officer to the Ripon Dispensary, *vice* E. W. S. Wilkins, M.R.C.S.Eng., resigned.

Paley, W. E., Esq., appointed House-Surgeon to the Evelina Hospital for Sick Children, *vice* D. W. Giffard, M.R.C.S., resigned.

Weir, John, M.B., appointed Dispensary Physician to the Royal Infirmary, Glasgow, *vice* A. Wood Smith, M.D.

Whitson, James, M.B., appointed extra Dispensary Surgeon to the Royal Infirmary, Glasgow, *vice* R. Smart, M.D.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

Kelly.—On December 4th, at 12, Plough Road, Rotherhithe, the wife of *Bernard Kelly, M.D., of a son.

Maxwell.—At Lahore, N. India, on November 5th, the wife of Theodore Maxwell, M.B., F.R.C.S.E., Medical Missionary, of a son.

Paton.—On December 1st, at Brook House, Rockferry, Cheshire, the wife of *J. Wilson Paton, M.D., M.R.C.S., of a son.

MARRIAGE.

Flower—Lush.—On December 3rd, at Fyfield Church, near Andover, Hants, by the Rev. C. A. Hodgson, Rector, *Frederic J. Flower, Surgeon, Broad Chalke, Salisbury, to Eva Henrietta, third daughter of William Lush, of Fyfield House, Andover, and formerly of Damerham, Wilts.

Bequests.—The late Miss Ellen Markland of Notting Hill left the following sums to medical charities, in addition to bequests to other institutions, all to be paid free of legacy duty: to St. Mary's Hospital, the Hospital for the Paralysed and Epileptic, the Leicester Infirmary, £500 each; to the West London Hospital, the Consumption Hospital at Brompton, the Royal London Ophthalmic Hospital, the Medical Benevolent College, the Earlswood Asylum for Idiots, the Hospital for Children, Great Ormond Street, the Royal Free Hospital, and the Cancer Hospital, £200 each; to the Dispensary, Notting Hill, £100.

At the meeting of the Governors of the Exeter Dispensary, to elect a successor to Mr. John William Harris, an address, handsomely illuminated and framed, was presented to that gentleman. It was as follows: "The Committee of the Exeter Dispensary cannot accept the resignation of their tried and valued friend Mr. Harris without putting upon record an expression of the sense they entertain of his long and faithful service. For twenty-eight years he has devoted much of his time, and all his skill, to the relief of the sick poor for whose benefit the dispensary was established, and they feel that the unusually long period of service demands from them their warmest acknowledgment. They beg that he will accept this expression of their grateful remembrance of his generous co-operation, and the assurance of their most cordial respect and esteem."

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.

TUESDAY ......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.

FRIDAY.........Royal Westminster Ophthalmic, 1.30 P.M. — Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Spencer Watson, "An Astragalus and portion of the Os Calcis removed by Primary Excision for Compound Dislocation of the Astragalus, and Compound Comminuted Fracture of the Os Calcis"; Mr. William Rose, "A Case of Cleft Palate" (patient shown); Mr. W. F. Teevan, "A Review of the Modern Methods of Treating Stricture".

TUESDAY.—Pathological Society of London, 8 P.M. Dr. Dickinson: Obscure Abdominal Tumour. Mr. Lawson: Sarcoma of the Sclerotic. Mr. J. Hutchinson: Cancer of the Tongue, shewing two quite separate Growths. Mr. J. Hutchinson: Intussusception of the Ileum into the Colon, in a Dog. Dr. Southey: Aneurysm of the Heart. Dr. Wickham Legg: Aneurysm of the Left Ventricle. Dr. Wickham Legg: Aneurysm of the Mitral Valve. Dr. Dowse: Cancer of the Abdominal Viscera. Mr. Wagstaffe: Papilloma of the Tongue (two cases).

FRIDAY.—Microscopical Society, 8 P.M. Nomination of officers, etc.

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Dr. Menzies.—We regret that the letter was too long for publication.

Mr. Gourley (West Hartlepool) should write to Professor Longmore, Netley.

A Candidate.—The subject is now occupying the attention of the Dental Board of the College of Surgeons. There was a meeting last week, and we believe there will be another shortly. "L.D., R.C.S. is the title."

A Fellow.—Mr. Henry Lee is the new Professor of Surgery and Pathology, and Mr. William Turner the new Lecturer on Anatomy and Physiology.

A Collector.—In the library of the College of Surgeons there is an old book containing an "autograph" of Shakespere, and on another page his initials. There is, however, great doubt about its genuineness, as it came originally from the library of young Ireland, the forger of the manuscripts.

Mr. Marshall.—The great lexicographer Johnson had a most exalted opinion of the medical profession, which he as often expressed, saying that "physicians did more good to mankind, without a prospect of reward, than any profession of men whatever". His physician Dr. Brocklesby, when he found that Government declined to increase his pension from £300 to £500, nobly came forward with the offer of £100 *per annum*.

Dr. Williams.—There is an engraved portrait of Barth. Dominicetti by J. Vitalba. He established medicinal baths at Cheyne Walk, Chelsea, for the cure of all disorders, in 1765. Soon afterwards, he took a house at Millbank, and had 16,000 people under his care. He ultimately became bankrupt, and disappeared.

St. Thomas'.—About 1730, it was customary to appoint a stone-cutter to the London hospitals, who should cut also for hernia, but should not hold the appointment of surgeon to the hospital, or, in fact, be denominated surgeon, but simply "stone-cutter and rupture-curer". "That brute Ranby", as Queen Anne called him, operated on Her Majesty. He presented the large silver cup to the Corporation of Surgeons on its separation from the Barbers' Company in 1745.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

An Associate writes as follows:—A medical man in private practice has been officer of health to a borough town for some years. This time twelve months the salary was increased, the appointment was advertised, and was made for twelve months only. The same medical man was reappointed, he being allowed to practise. The same post is again advertised for, but with this difference, that henceforth it shall be a permanent one. Presuming the present holder intends reapplying for the office, would it be a breach of etiquette for another medical man to make an application, in which he promises to devote the whole of his time to the special duties?

⁂ The appointment being open to competition, we do not think that it could be called a breach of etiquette for a candidate to make a promise of the kind referred to in our correspondent's question.

Mental Starvation.

Dr. Lavies writes to us to correct some inaccuracies in a note referring to an inquest in which he gave evidence, bearing the above title, which appeared in the British Medical Journal of November 21st. Dr. Lavies informs us that his recommendations, though not adopted, were all duly forwarded to the Home Office; secondly, that the *post mortem* examination revealed disease of the lungs, but not of the other organs; and, thirdly, that he never used the expression "mental starvation" in reference to the cause of death.

Foreign Diplomas.

Sir,—I see by a letter from "Cosmopolitan", in your issue of the 7th instant, that registered practitioners in this country can obtain a diploma (M.D., I presume) at Würzburg, Heidelberg, and other foreign Universities, by examination and without residence. As I am anxious for further information on the subject, perhaps he would kindly answer the following questions.

1. Which of the Foreign Universities will grant the diploma of M.D. for a fair practical examination, without residence, to a registered practitioner (M.R.C.P., F.R.C.S.) in England?

2. Can you tell me what is the form of examination, and what the subjects are, at any of them? If not, to whom should I apply for the necessary information?

November, 1874. I am, etc., M.R.C.P.

Excessive Masturbation by a Child.

Sir,—I have met with many cases similar to the one described by "An Old Member". Perhaps the most remarkable is that of Master C., aged 22 months, who several times a day used to roll on the floor till the penis became erect. If prevented from doing this, he used to rub himself by crossing his thighs. I have never known a case to resist circumcision and bromide of potassium, if the rectum and bladder were free from irritation; though in the treatment of girls, it is sometimes necessary to resort to mechanical appliance. I am, etc.,

6, Seymour Street, W., December 1874. Percy Boulton, M.D.

Sir,—Under the above heading, in your last week's issue, an "Old Member" seeks advice. I should recommend him to raise a blister over the prepuce by painting it well with the acetum cantharidis (*B. P.*), and repeat it occasionally, so as to keep it sore for ten days or a fortnight. If that be not successful, he should circumcise.

December 7th, 1874. I am, etc., G. W.

Sir,—In answer to "An Old Member", I have seen several cases of this kind relieved, if not altogether cured, by applying a small quantity of the liquor epispasticus to the glans penis; or, even should this be difficult to expose (as perhaps in the case described), I should advise trying a little upon the foreskin itself. I would advise him also to look after the child's nurse, and to prevent his associating with any companions who are at all likely to harm him in this respect.

Dec. 7th, 1874. I am, etc., M.R.C.S.Eng.

Sir,—"An Old Member" writes for the advice and experience of others in regard to the cases of excessive masturbation, etc. I beg to give him my experience, which, I regret to tell him, is by no means small; and, unfortunately, the treatment, unless of an heroic nature, is but of small avail. I have now under notice four children in one family, varying from seven to twelve years, and each child continues to practise it at every convenient opportunity. The result has been excessive pallor, loss of flesh and brain-power; the children are unable to compete with others at school, their minds having no power of retention. The treatment I have adopted has been blistering the penis, or the application of a hot iron, so as to render the organ excessively sensitive to the touch; also, I have tried the influence of introducing a sound. Bromide of potassium, I have sometimes thought, has limited the tendency. But I will now speak of the heroic treatment—I mean circumcision; and if you can gain the consent of the friends, the sooner it is performed the better. Removal of the prepuce will cause the glans to become hardened in texture, and so limit sensibility, besides the moral effect of the operation, which is not readily forgotten. In a large Jewish institution with which I am connected, masturbation is unknown. I am aware that I am treading somewhat hardly upon a recent author's ideas in suggesting circumcision, but the baneful effects of masturbation must be my apology. I am, etc.,

December 1874. Circumcision.

On the Right Management of the Puerperal State.

Sir,—Rightly to comprehend the true philosophy of the question, it is necessary to revert for a moment to a consideration of the antecedent condition of childbirth. This, it may be briefly said, corresponds in some essential respects with that of a person undergoing a Turkish bath. In both instances, though from a widely different cause, the functions of organic life are exalted to the highest pitch, and the patient is bathed in a profuse perspiration. And just as at the conclusion of the hot-air bath the patient is subjected, with the greatest comfort and advantage, to the graduated cold douche, so likewise at the conclusion of labour—but for the exhaustion consequent upon protracted suffering and loss of blood—the graduated cold douche would be equally applicable and advantageous; and this brings to my mind a statement made to me many years ago by a lady, the mother of a large family. She related that on one occasion, whilst at Jamaica, she was attended during her confinement solely by a native woman, who, after the labour was completed, compelled her to get out of bed and stand in a wooden bowl. The woman then poured cold water all over her from a jug. In relating this circumstance, the lady laughingly declared that in none of her confinements, either before or since, had she made such a rapid recovery as on that occasion.

November 18th, 1874. I am, etc., M.D.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

MARTIN'S SOLUTION OF TANNIN.

SIR,—In answer to your correspondent, I have never used Martin's solution as an urethral injection. It is much too strong, and its consistence is not suitable for such use. A watery solution containing five grains of pure fresh tannin sometimes causes great irritation, and Martin's solution contains two-thirds of an ounce in the ounce. Glycerine of tannic acid may be used diluted with an equal quantity of mucilage or oil, the mixture containing a drachm of tannin to the ounce; but glycerine profoundly modifies the action of tannin, as it does of other drugs—carbolic acid, for instance. I have never used a watery solution of tannin stronger than ten grains to the ounce, in gleet or chronic gonorrhœa, with any satisfaction as to the result; in fact, I find far better results from mild injections—bismuth, or very weak lead-lotion. I am, etc., PHILIP MIALL,

Bradford, York, Dec. 7th, 1874. Surgeon to the Bradford Infirmary.

MEDICAL DEGREES AND TITLES.

SIR,—In the BRITISH MEDICAL JOURNAL of October 24th, a L.R.C.P.E. attempts to justify the assumption of the title of Doctor by the order of medical practitioners to which he appears to belong, and assigns as his reason for the commission of the abuse, that the question of medical titles is settled by the opinion of the populace and the use of an English dictionary: principles which, whatever weight they may have with the ungraduated licentiate, cannot be regarded as authoritative in reference to the question.

The term doctor, in its vulgar signification, is synonymous with medical attendant, and is, therefore, not only applicable to ungraduated Licentiates, but, in the opinion of the populace, and perhaps, also, in conformity with the meaning obtained from an English dictionary, may even include practitioners of a questionable character. In its proper acceptation, and as applicable only to University graduates, whether doctors of divinity, law, or medicine, the term implies that its possessor has been regarded by an University as *Doctus*, in the various branches of learning pertaining to the particular faculty and is, therefore, entitled to receive the status and designation of Doctor (which does not signify physician); while, as applied to doctors of medicine, it not only implies the previous recognition of the element *Doctus* in the several departments of medical learning, but further confers the right to practise the healing art—a right which belongs to it in common with other recognised qualifications, which may find a place on the *Medical Register*.

Surgeons generally do not assume the title, though it is frequently conceded to them by the populace; but many ungraduated Licentiates, partly in consequence or their possessing a medical as distinct from a surgical license, partly from the connivance at the abuse by the corporations who have granted them that license, partly also from their own inherent presumption, and partly in consequence of the ambiguity in regard to the term, have not scrupled to avail themselves of such fallacious and equivocal reasons in order that they may invest themselves with a title to which they have no claim whatever. That the ambiguity attaching to the expression explains to some extent the prevalence of the impropriety in question, is shown by the absence of any similar attempt at the assumption of the title of Doctor among members of other learned professions, by those who do not possess the degree of Doctor of Divinity or that of Doctor of Laws. It has been stated, in justification of this abuse, that British Universities act "cruelly, unfairly, and unjustly", because they do not confer their degrees on candidates who have not studied within their walls; but "cruelty, unfairness, and injustice", even were such conduct true, do not warrant, on the part of ungraduated Licentiates, the assumption of titles to which they have no right. The correspondent who urges this excuse informs us that he possesses a foreign diploma, and that in consequence he is "well treated and much thought of"; and he thinks that "British Universities should be brought to their senses", because, in his opinion, they act "cruelly, unfairly, and unjustly". But as graduation at a British University not only denotes the honour connected with it, but, in addition, gives a voice in the election of its parliamentary representative and a power in the administration of its internal affairs, he has failed to show wherein consist the "cruelty, unfairness, and injustice", in reserving graduation with the rights and responsibilities which it involves only for former alumni. And if the charge preferred against them of being "out of their senses" mean anything, it implies that the minimum period of attendance which is enacted is too short in proportion to the status and powers which are conferred.

Another correspondent is of opinion that it is questionable whether ungraduated Licentiates "can be deprived of their right of calling themselves Doctors, and that it is fair that those who lend their names to this proposal should be made known to the medical profession". It is certainly not only questionable, but impossible, to deprive them of rights which they do not possess; but it is not questionable whether a successful issue would not attend the proposal to check a course of conduct founded on the supposition of the possession of rights which have no existence. Let him be assured that those who might not co-operate in the proposal would represent a minority of degenerate and disrespectful sons of an alma mater to whom they owe their position, and in the maintenance of whose status and interests they are morally bound to participate. Were such a movement commenced, it would doubtless meet with a hearty response—nay, more, some ungraduated Licentiates, holding in contempt their more pretentious brethren, would lend their aid in the suppression of that presumptuous affectation of which they have been guilty. I am, etc., M.D.

SIR,—I cannot help thinking that certain correspondents to your valuable JOURNAL have been rather hasty with respect to the right of L.R.C.P.s to the designation of "Dr." In the first place, let me, in all fairness to the College of Physicians of Edinburgh, acquaint M.D.Ed. that, during the last twenty years at least, the examinations for the College and Hall diploma, also for the L.R.C.P.Ed., have been very stringent and creditable, consisting of written, *vivâ voce*, microscopical, analytical, and clinical sections, extending over the space of at least two days. It does not appear to be doubted that a L.R C.P.E. has a claim to the designation of physician; as much so as a M.R.C.S. is as much a surgeon as a F.R.C.S Why, then, should not a physician, for the same reason, be called Dr? Indeed, the College of Physicians admits the privilege. There is this marked distinction between an University physician and one who, though possessing the College and Hall diploma, also a special midwifery diploma, as in some cases, and one who has time for residence, and with means at command for obtaining the University degree, that the latter can put M.D. after his name. Let it be borne in mind, also, that even now a degree of M.D. can be obtained for filthy lucre. Would there, then, be more honour due to a qualified medical man obtaining such a questionable degree than to one who submits himself to a highly creditable, honourable, and Royal College for the honour of a physicianship? Let it be also borne in mind that L.R.C.P.E.s have the sanction of the Examining Board for doing what has called forth such over-zeal, and, I was going to say, unfair comments. I have yet to learn that M.D.s of London have raised any objection to the dealings of L.R.C.P.E.'s. I am, etc.,

November 1874. M.R.C.S.E., L M., L.S.A., F.R.C.P.E., S.M.

SIR,—I have suddenly and completely changed my mind respecting medical titles. Hitherto I have stickled for legality; now I adopt the broad platform of courtesy, usage, and utility. The public style all medical practitioners "Doctors". Usage acquires the force of law. Surgical practitioners will probably eschew the title: they may please themselves. The title will be reduplicated in the case of M.D.s; but this is not a matter of consequence. We shall write—"Dr. Blank, M.D."

Rochester, Nov. 21st, 1874. I am, etc., FREDK. J. BROWN, M.D.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette; The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; etc.

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BOOKS, ETC., RECEIVED.

Transactions of the Pathological Society of London. Vol. xxv. London: 1874.

Tumour of Lateral Portions of the Lower Jaw, removed without External Wound. By C. F. Maunder. London: J. and A. Churchill. 1874.

Sanitary Report of the Province of Oudh, 1873. Lucknow: 1874.

Report of the Sanitary Commissioner of the Hyderabad assigned Districts for 1873, with Appendices. Hyderabad: 1874.

Tenth Annual Report of the Sanitary Commissioner for the Government of Bombay, 1873. Parts I and II. Bombay: 1874.

Report of the Sanitary Commissioner for Madras, 1873. Madras: 1874.

The Influence of Social and Sanitary Conditions on Religion. By Henry W. Acland, M.D., F.R.S. Oxford and London: James Parker and Co. 1874.

Statements of the Grounds upon which the Contagious Diseases Acts are opposed. By J. Birkbeck Nevins, M.D. Liverpool: 1874.

Diseases of Tropical Climates, and their Treatment. By J. A. B. Horton, M.D. London: J. and A. Churchill.

Clinical Lectures on Various Important Diseases; being a collection of the Clinical Lectures delivered in the Medical Wards of Mercy Hospital, Chicago. By Nathan S. Davis, A.M., M.D. Edited by Frank H Davis M.D. Second edition. Philadelphia: Henry C. Lea. London: Trübner and Co. 1874.

Croup in its Relations to Tracheotomy. By J. Solis Cohen, M.D. Philadelphia: Lindsay and Blakiston. London: Trübner and Co. 1874.

OBSERVATIONS ON THE STRUCTURE OF TUMOURS:

IN RELATION TO THEIR CHARACTER AND CLINICAL HISTORY.

By WILLIAM S. SAVORY, F.R.S.,
Surgeon to St. Bartholomew's Hospital.

It must be confessed that it is no light task for a student to grapple with our present knowledge of the great subject of tumours. We may be, and no doubt are, nearer to the truth than we ever have been; but, as the matter was taught and understood a few years back, it was certainly easier of comprehension than it is now. It is by no means easy to follow the literature of the subject, but just now the chief difficulty is to reconcile the results of pathological research with clinical observation. The clinical history of tumours points very plainly to the two great classes of innocent and malignant growths; for the distinction is marked strongly enough in typical instances, although, as we ought to anticipate, they gradually pass into each other by intermediate forms: we all are familiar with recurrent tumours. And so, but a few years ago, morbid anatomy or pathological histology seemed to be fairly in accord with the results of clinical study. Although it was never generally admitted that a cancer-cell could be accurately defined or always clearly recognised, yet it was allowed by those who had given most attention to the subject, that the structure of tumours pointed to a classification in harmony with that suggested by their clinical history. Microscopic investigation claimed to be in strict accord with clinical observation. But this cannot be asserted now. It will be so; it must be so hereafter. No doubt we were in error in the past; but at present there is no doubt either that we are in some confusion. And the present state of confusion has arisen with the introduction of a class of tumours called sarcomata, which we owe especially to the ability and influence of Virchow. But I would not on this point be misunderstood for a moment; I am not suggesting that we have moved backward in our work; I am only endeavouring to show that the subject has thus become for a while more complex and intricate. Truth emerges from error sooner than from confusion, says Bacon, but oftentimes truth can be educed from error only through confusion.

The one objection I would urge now is to the term sarcoma, which is very unfortunate: unfortunate as the revival of an old term once upon a time most vaguely employed to all sorts of tumours, about which nothing was known; and unfortunate, as now either meaningless, or, as it implies anything, tending to mislead.

If the view derived from histology which is now current concerning the distinction between sarcoma and carcinoma be established—I mean, of course, the view of a different structural origin—then assuredly, whatever temporary difficulty may have been created by it, it is a distinct step forward, and must inevitably, sooner or later, aid and enlighten bedside work. But the temporary difficulty is this: put a tumour into the hands of the pathologist, and an examination of its structure will, with very few exceptions, enable him to assign to it its proper place in his classification, and he will for the most part have plain and intelligible grounds for the conclusions he draws. So far all is clear enough. The surgeon, too, though with far more numerous exceptions, and in many cases with much doubt, will, after the clinical study of a tumour, be able to forecast his patient's fate. But between the two there is this interruption: the surgeon fails to recognise the full force of the distinction between carcinoma and certain forms of sarcoma. They both to him are intensely malignant diseases, and their clinical history, so far as he at present knows, presents no contrast corresponding to that which is pointed out by their histology. I am not overlooking the difference of clinical features to which attention has been called, such as the far greater disposition of carcinoma to affect lymphatic glands; but, even allowing the most to these, they are not enough. But then the pathologist will say, Why not accept the two forms of malignant tumours—carcinoma and sarcoma? They admit of distinction by their structure at all events. True, it may be replied; but the pathologist, in his present classification, puts under the same order of structure tumours possessing the utmost possible diversity of clinical history; for a sarcoma may be almost or altogether innocent,* or most malignant. And if, once more, it be urged that this difference between sarcomata is declared by their structure, and that, although, for morphological reasons, they are placed under one head, yet nevertheless their individual characters are for the most part marked to the histologist; it must be allowed that the surgeon is still justified in withholding his unqualified assent to a classification which groups together under one head tumours so widely separated in their life and action.

Under pressure of this difficulty, and in misgiving of the security of the step which, in our present classification, pathological histology has taken, I still seek for some clue to a better understanding of the relation which the character and clinical history of any tumour bears to its structure. Meanwhile, may we not find in tumours a striking instance of the light which physiology can throw on pathology? In the study of the various members of the organic kingdom, the law is revealed that the power of multiplication or reproduction is in an inverse ratio to their grade of development, or to the degree of change which they have passed through. In other words, the power of metamorphosis appears to be opposed to the power of reproduction.

Now that which is true of different members of the animal kingdom is true also of individual parts of the same member: as with the body itself, so with each of the tissues of the more complex forms—that which is originally developed in the simplest way, through the least degree of change, can be subsequently most readily and completely reproduced. In other words, that which in the adult condition is removed furthest from the embryonic state is least capable of reproduction. As, then, with animals so with their tissues—the simplest multiply the fastest. Witness, in illustration of this, the degree in which they severally possess the power of repair; from complete reproduction, as in fibrous tissue, to the utter want of it, as in muscle.

Now this great law does not appear to be limited to healthy structures; for morbid growths are but deviations from natural tissues; they are derived from these, and we might, therefore, reasonably be led to the conclusion—to which indeed the facts within our knowledge point—that their life is governed by the same laws. These laws prevail within the domain of pathology, and govern the growth, development, degeneration, and decay of tumours.

For example, how apt is fibrous tissue, in its several varieties, to produce tumours; and the various forms of fibroid, fibrocellular, and fibroplastic tumours which are now included under the head of sarcoma differ widely in their clinical history; but then, in their structure, these different forms exhibit elements representing various stages in the development of fibrous tissue; and it may be said generally that, in proportion as their elements retain their embryonic character, so does the tumour betray the features of malignancy.

Thus, in the common spindle-celled sarcoma, the forms are those of granulation tissue at a certain period of its development; but, in the tumour, these forms, instead of passing on into adult fibrous tissue, become exceedingly multiplied. The worst of it is, that, instead of transformation, there is reproduction. In other so-called sarcomata, the round or oval celled—of the gravest malignancy, more rapidly destructive than the spindle-celled, and perhaps more apt to infest lymphatic glands—the "cells" are still more embryonic, like those in the earliest stage of granulation tissue.

The tendency to recurrence, then, which is so characteristic of the sarcomata may be associated with the fact, that they are tumours composed of immature cellular tissue, of cellular tissue which does not attain the adult form, but whose development has failed at some previous stage.

In carcinoma, I think, we have an illustration of the same law. It has been often said of cancers that their structure does not resemble any of the natural structures of the body; but is it not more correct to say that, of all tumours, the essential elements of carcinoma most obstinately retain the embryonic form. Their cells or the masses of protoplasm resemble most closely those commonly seen in the earliest stages of natural tissues. Witness, for example, the resemblance between cancer-cells and the cells in the brain of the fœtus.

The difference between homologous and heterologous growths is this: that in homologous growths the development is normal, but is carried out in the wrong place, and under abnormal conditions; in heterologous growths, there is more or less wide deviation from normal development. But there is no defined line of demarcation between the two. The whole difference turns upon the direction development takes, and the degree to which it proceeds.

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* "Almost or altogether innocent", for the term "sarcoma" is not used, even by the best pathologists, always in the same sense; while by some it is limited to tumours which are recurrent, by others it is extended to all tumours of a fibrous structure.

But, with regard to cancer, there is another question perhaps worth more attention than it has yet received. The existence of a "cancer-juice" is always recognised; but the cells are spoken of as the active agents, and to their account all the mischief is placed. Now if, as I suppose, the cancer-juice represents the formless protoplasm out of which the cells arise, may not that, rather than the cells even, be the prime source of mischief? I know no way of practically proving this. The juice may be in this respect altogether neutral, and the forms which spring out of it, or, if we will, exist in it, may be the starting-point of mischief; but, looking to analogy in the development of natural structures, and to the wide and vague view which must be and now is taken of a "cell", it may be that, in the formless protoplasm which after death or removal appears as cancer-juice, lies the idea of cancer.

No doubt exceptions may be mentioned to this law of relation between the want of development in the structures of a tumour and their tendency to multiply; but are they real or apparent? It is not always practicable to decide between immature and adult forms. An elementary tissue virtually adult may yet present an embryonic form, just as in normal structures the character of a tissue, in this as in other respects, may be determined with far more certainty by its physiology than by its anatomy. In two forms of tumours, for instance, this distinction between apparent embryonic form and embryonic character is very marked. In the fatty tumour, the fat-cell, seemingly simple, is, as we know, to all intents and purposes an adult form, and in the tumour it discharges a function precisely similar to that of the normal fat-cell. Still more strikingly is this shown in the glandular tumours, as, for example, in that of the breast, the chronic mammary tumour. The cells which are so abundant might, when isolated and free, be easily interpreted as cells of some malignant growth; that is, so far as their general structure is concerned, without relation to any special characteristic which an educated eye may detect; and yet they are truly adult forms—structures which have no doubt reached a degree of development equal to that which they attain in the normal gland; sometimes indeed even, like them, secreting milk; and the key to the true interpretation of their nature is given by their arrangement in, and relation to the acini. Yet these tumours, innocent as they usually are, occasionally prove recurrent; and there is not wanting evidence to show that this recurrence may be due to the persistence in some portion of the tumour of elements in a more embryonic form.

In fact, recurrence is occasionally exhibited as a feature of any form of tumour, even apparently the most innocent; and this it is not difficult to understand if recurrence depend on the persistence of rudimental or embryonic forms. And, while in practice we may be apprehensive about the future of any case in which a tumour consists of very immature structures, we can never be quite sure that any tumour, even though in structure apparently the most innocent, may not contain within the visible mass undeveloped forms.

And in relation to this there is another matter of importance. Many tumours are composed of various elemental forms, and exhibit in different parts very different structures. And these mixed tumours are, perhaps, of more frequent occurrence than is generally believed. Now, although in such a mass one structure may largely predominate which is very innocent in its nature, yet the tumour may prove to be recurrent from the presence of other structures which formed but a very small portion of the original mass. Thus the chief importance of a tumour—that is, its worst feature—is not derived from the predominant structure. It is well known that, when recurrent tumours are frequently removed, each successive tumour is apt to show a greater abundance of more immature forms. The structure of the first growth may hardly have been suspicious, whereas the structure of the last tells plainly enough a tale of mischief.

From this view of the subject, there is a curious fact about cartilaginous tumours. As every one knows, the majority of these are innocent, and yet, as is well known, too, a cartilaginous tumour occasionally behaves like a malignant one, and new growths of the same structure spring up in distant and various parts; nor do I know that these malignant tumours present any visible peculiarity of structure whereby they may be distinguished from the innocent ones. To be sure, these more mischievous tumours usually grow unconnected with bone; in strange parts, as the testicle; but then, again, cartilage sometimes enters in abundance into the composition of tumours which do not recur, as, for example, into gland-tissue over the parotid. But then let us remember that, curiously enough, there are different forms of normal cartilage; not only various kinds that differ in their structure, but also forms which differ in their life; notably in their tendency to pass into bone, as temporary and permanent cartilage. Nor is there, let it be observed, in point of structure alone, any means of distinction between the two. Now, is there anything analogous to this in cartilaginous tumours? Are those which are innocent of the nature of cartilage which tends to reach the final term of its development, while others, lacking power in this direction, tend to increase and multiply? This question, indeed, in the case of all tumours, needs consideration. Granted the presence of immature forms—which of course must exist in every growing tumour—what is their prevailing tendency? Are they, or are they not, in process of development? But, with regard to this exceptional character of cartilaginous tumours, there are other significant facts. Thus, in structure, combination, and mode of development, they strikingly resemble fœtal cartilage; they often grow very rapidly, and attain an enormous size; they are often multiple, sometimes hereditary; in their structure, they are apt to exhibit a strange and almost endless diversity of elementary forms; they are often mingled with other tumours, and sometimes with cancer; in certain instances at least, their dissemination has been associated with the extensive growth of the original tumour in the interior of lymphatics or blood-vessels.

It is interesting to note, with regard to this relation between the structure and character of tumours, if it exist, that, with the development of more perfect tissue, there is usually more definite form. Circumscribed and uniform tumours are more likely to be composed of adult tissue; infiltrations, of embryonic or rudimental elements. Nor are the real exceptions to this so numerous as the apparent ones; for oftentimes, as every one knows, when a malignant tumour appears to the naked eye to be circumscribed, or even encapsuled, a more minute examination will detect its extension in all directions into the tissues around.

Attempts have been made to explain the character and clinical history of a tumour by its construction; to account, on the one hand, for the limitation of its growth to a single part by the mode in, or the degree to, which its elements are bound together; and, on the other, for its dissemination by the slight bond of connection existing between them. But I submit that a low grade of development is far more important in relation to transference and dissemination, or malignancy, than the mere want of coherence among the elements of a tumour. A glandular tumour, like the chronic mammary, is innocent, not because of its construction, but because its cells are comparatively incapable of separate and independent life. When detached, they speedily perish. A cancer is malignant, not because its cells lie loosely in alveoli, but because they consist of indifferent substance. These cells being less highly developed, less specialised, have a more enduring power of individual life; they are more independent of their environments.

And herein, I think, is a clue also to the difference between local recurrence only and malignancy. The simple elements of a recurrent tumour may grow actively, spread widely, and be reproduced easily, but they are not so capable of sustaining an independent and isolated life as are the elements—being of a yet lower grade—of cancer.

The character of a tumour, then, is determined by the nature rather than by the mobility of its elements or its position. I do not deny the influence of these and other conditions such as vascularity, warmth, moisture, and movement; but I think it is a subordinate one.

It will be said, even by those who will allow that there is some truth in this view, that, after all, the best way to forecast the future of a case in which a tumour has been removed is to determine, by its examination, the class to which it belongs, and then to found our prognosis upon what is known of the clinical history of that class. No doubt in this way much useful knowledge is attained. This, indeed, is the great, nay, has hitherto been the sole way; and indeed, within certain limits, it would do all that is desired, if only the different classes of tumours were distinct, and if the structure and clinical history of each class were clear and defined. When these conditions are even moderately fulfilled, we become tolerably well informed. Take, for example, a case of scirrhous carcinoma of the breast. When we have determined its nature with the assurance which may be derived from the means at present at our command, how far and very clearly we can look into the future. But even here after all how much is left uncertain. How widely the clinical history of scirrhus varies. Even in this one kind may be traced all degrees of malignancy. And, when we pass to other classes of tumours about which our knowledge is still less clear and defined, what admission must be made here? At least this: that no line of demarcation can be drawn between innocent and malignant growths.

And then, lastly, even from a pathological point of view, how vague and untrustworthy are the distinctions in structure between different tumours, as, for example, between a "round" or "oval-celled" sarcoma and a lymphoma. Looking back now for some years over the admirable work which has been done in this subject, I confess I am not sanguine of the stability of our present classification. Even apart from the chief fact, that it does not naturally come into harmony with clinical work, when tried solely on its own ground, that of histology, the data from which distinctions are drawn appear to be too trifling or insecure. Malignant sarcomata, for example, are classed with comparatively innocent growths, and separated from carcinoma, on the ground that, while both are composed of cells, the cells of carcinoma are of an epithelial type, while those of sarcoma spring from connective tissue. I do not say that this is the sole ground of distinction. There is the very subordinate difference, probably dependent on this, of arrangement of those elements. But this, I take it, is the radical distinction; yet of what after all consists the line of demarcation between connective tissue and epithelium? Is it strong enough—that is, physiologically distinct enough—to be the durable basis of such a classification?

But, at all events, if hereafter a more stable basis for the arrangement of tumours shall be devised than any which is founded upon the character of their elements, in the meanwhile I would suggest that, in structures of a doubtful kind, in tumours of no definite description, in growths of a mixed nature, and as an aid to, or in criticism of, conclusions drawn from current views, more attention than heretofore might with advantage be given to a study of the relation of a low grade of development to dissemination and recurrence.

In summary then:—The tissues which are simplest in structure and mode of development are most apt to form the substance of tumours, as, for example, connective tissue. The most elaborate tissue in these respects—striated muscle—is very rarely, if ever, found as a distinct morbid growth, and it is comparatively rare to find even unstriped muscle as a separate mass in the substance of tumours. In the elementary structures of tumours, there is an inverse ratio between the tendency to progressive metamorphosis and the tendency to reproduction. The less the structures of which a tumour is composed tend to change from their primary or embryonic form, the more abundantly will they multiply; so that those tumours whose structures retain most nearly their primary form are the most malignant. And, as the structures of a tumour are capable of transformation, so do they lose their power of repetition; so that those tumours which consist most completely of fully formed tissue are the most innocent.

LABORATORY NOTE: ON THE TENSILE STRENGTH OF THE FRESH ADULT FŒTUS.*

By J. MATTHEWS DUNCAN, M.D.,
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THERE are almost innumerable laboratory experiments demanded in the present state of obstetrical science; for, while many important points in the mechanism of natural and of unnatural delivery may be admirably illustrated or explained by them, others can in no other way be made out or settled. To give a list of those which at once occur to the mind would be tedious and, to me at least, very tantalising, for I have been able to make very few; and this deficiency arises, in great part, from the want of material. Yet those acquainted with the recent progress of obstetrics can easily recall to mind some of the most valuable of our recent steps in advance, which have been attained through following that experimental method, the dawn of whose usefulness is as yet scarcely recognised by obstetricians.

The experiments which I am now about to describe were made with a view to arrive at correct ideas as to the force available in delivering a child footling; for example, in the operation of podalic extraction now extensively recommended in the conduct of certain cases of contracted pelvis. I knew that even among our best recent authors there has prevailed gross error on this point, the available force being absurdly overrated and the force that could be exerted in the alternative forceps operation almost as absurdly underrated. It would be easy, but it is unnecessary, to cite strong asseverations to this erroneous effect from the most recent authors, widely reputed as our best. Now the point is not of second, but of first-rate importance in the question; indeed, a fundamental matter. It is, therefore, well worthy of careful discussion, and fortunately it is easily settled in a quite conclusive manner.

I took a fresh newly-born child, and, after passing its body through an aperture so cut in hard wood as to represent the brim of a contracted pelvis, or after fixing its head below the biparietal diameter between two parallel bars, I applied above an ankle an apparatus consisting essentially of a hook, whereby to suspend the weights, which were to be gradually increased till they produced disseverment of the body of the child.

As is well known, the disseverment in actual practice takes place, as it did in all my experiments, in the neck. The disseverment was, therefore, always decapitation.

The force effecting decapitation is in these experiments equal to the combined weight of the child beneath the line of disseverment, of the apparatus attached above the ankle, and of the special weights applied. But great nicety was not attempted, the increments of weight attached being made by several pounds at a time.

It was desirable to limit the time during which in each trial the weight was allowed to operate, and the term of a half-minute was adopted, the weight not being allowed to act longer than that time in one trial. A limit of this kind was necessary to bring the experiments into conditions somewhat analogous to the pains or force of labour and the efforts of the accoucheur in a difficult case in actual practice.

The decapitating force thus discovered is the measure of the tensile strength of the fœtus; and, of course, in podalic extraction, whether by the feet or by the Prague seizure, no greater force effective in delivering the head can possibly be applied, for the materials give way when the weight reaches the decapitating amount.

In actual practice, a greater dragging force may be exerted by the accoucheur and applied to the child. But such force, so far as it exceeds the decapitating amount, does not directly help the delivery of the head. It is either usefully spent in overcoming friction of some part below the line of disseverment, or uselessly or even banefully spent, because misdirected. In actual practice, however, when the head is fixed on the brim, the decapitating force must be very nearly an exact highest limit of the force that can be exerted by the accoucheur.

These remarks are made without regard to the life of the child, and with a view merely to the strength of the materials. The experiments to be narrated will show that the life of the child is compromised before the limit of the tensile strength of the fœtus is reached. This is easily explained by the destruction of the spinal column, which occurs under a force considerably less than the decapitating force; and this circumstance must be kept in mind when podalic extraction is compared with forceps-extraction; for, in making the comparison, it is supposed that the life of the child is not compromised. Neither operation would be selected as the best, if the securing a living child were hopeless.

Experiment 1. A fresh adult female fœtus, weighing 5 lbs. 6 oz., and measuring eighteen inches in length. The spinal column gave way under 90 lbs. Decapitation took place under a weight of 118 lbs. The disseverment occurred between the fifth and sixth cervical vertebræ.

Experiment 2. A fresh adult female fœtus, weighing 7 lbs. 7 oz., and measuring twenty inches in length. The spinal column gave way under a weight of 120 lbs. Decapitation took place under 141 lbs. The disseverment occurred between the sixth and seventh cervical vertebræ.

Experiment 3. A fresh adult female fœtus, weighing 8 lbs. 15 oz., and measuring twenty-three inches in length. The spinal column gave way under a weight of 122 lbs. Decapitation took place under 136 lbs. The disseverment was between the fourth and fifth cervical vertebræ.

Experiment 4. A fresh adult male fœtus, weighing 5 lbs. 12 oz., and measuring twenty-one inches in length. The spinal column gave way under a weight of 91 lbs. Decapitation occurred under a weight of the same amount. The disseverment was between the fourth and fifth cervical vertebræ.

Experiment 5. This experiment is not to be included with the former, as it was performed not on a newly-born child, but on one a fortnight old. It was fresh, and weighed 7 lbs. 5 oz., and measured twenty-two inches in length. The spinal column gave way under a weight of 147 lbs. Decapitation took place under a weight of 163 lbs. The disseverment was between the third and fourth cervical vertebræ.

The dissevering or decapitating force in these experiments was 118, 141, 136, and 91 lbs. respectively, or, on an average, about 120 lbs. This is probably far from being what most obstetricians would regard as a great force; and it may be said with truth that, if we are to avoid premature decapitation, the force used should not reach this amount; should not, indeed, exceed a hundredweight. Such a force, if used only for a short time, if it cause no great contusion, and especially if it do not break the continuity of the mucous surface, may be safely used in repeated efforts in delivering. On this point, there is much inexactness from our ignorance as to how much and how long the soft parts will endure compression without great resulting evil to the mother.

This podalic dragging force of a hundredweight is considerably greater than any ever known to be exerted in propulsive efforts in natural parturition, and so also is the force of 100 lbs., which is about the limit of what is available without destroying the life of the child. Estimates of the force of labour-pains have, as is well known, been published, which make it much above a hundredweight; but such estimates have been shown to be unreliable in themselves and in the methods by which they have been reached. It is a part of the theory of podalic extraction in contracted pelvis, that the force exerted there by the accoucheur exceeds that of the best labour-pains, and it is interesting to observe that the experiments confirm at least this part of the theory. At the same time, it is necessary to realise that the excess of force in favour of podalic extraction is truly very limited.

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I am sure that most accoucheurs, not being familiar with dynamometrical experiments, will regard each his own available muscular power as being far more than he can dare to use in podalic extraction; that is, far more than a hundredweight. No doubt he is right, in so far as that he can easily lift a hundredweight, perhaps even two; but that is a very different and a very easy matter compared with applying a dragging force of a hundredweight in a special direction. Probably no ordinary man can stoop over a bed and pull in a direction across the front of his body, or in what would now be called a coronal direction, with a force of a hundredweight, and this is what many attempt and erroneously fancy they can do. Numerous failures arise from practitioners erroneously estimating the amount of force they are exerting, and still more from erroneously estimating the amount of extractive or dragging force they are exerting on the fœtus, since it is common to confuse the amount of force exerted with the amount made efficient as a dragging force; and it is the direct dragging force that may be allowed to rise to about a hundredweight. If a proper judgment be formed of the great difficulty of using a dragging force of a hundredweight, except when the accoucheur is favourably placed, it will be easily understood how important it is to have the patient in a convenient position; for the practitioner must wield his great force skilfully, and gently, and easily, if he is to do his work in the best way.

In the foregoing experiments, it will be observed that the cervical part of the vertebral column invariably gave way, and the dissevered vertebræ became widely separated from one another before the whole neck yielded and decapitation was effected. While the vertebral column yielded when the weight or force was about 105 lbs., a further addition of about 15 lbs., forming a total of 120 lbs., was required to produce decapitation. From this, it is evident that at first almost the entire dragging force is exerted through the vertebral column; that the tensile strength of all the tissues of the neck is not simultaneously and equally tried, and that the vertebral column is weaker than the combined soft parts. The vertebral column yields with a snap or jerk, and immediately a marked elongation of the fœtal body occurs. Of both of these events, the accoucheur can scarcely fail to be aware, even if he did not expect them, and this information is important practical direction to him, if he wish, as he almost certainly does, to avoid decapitation. The yielding of the column of bones does not restrict the force he can exert; for he can generally, not always, apply more, to the extent of about 15 lbs., without producing decapitation. But the events referred to form a distinct warning to him as to how near he has reached the amount of force available by dragging the fœtal body. He cannot, when they have occurred, pull with greatly increased force, even for half a minute at a time, without incurring the imminent risk of decapitation.

Another point is clearly shown by these experiments; viz., the sufficiency of a single limb for dragging, so far as mere strength of materials is concerned; and this determination has many evident practical bearings. In the trials narrated, we uniformly attached the apparatus and its connected weights to one leg just above the ankle. The parts were protected by a piece of leather wrapped around them from the cutting sort of edge presented by the cord used to tie on the apparatus. One leg always proved stronger than the whole neck. It is interesting to remark, with reference to the leg, that, just as in the neck, the bony column was weaker than the other combined soft parts; for, during the dragging, various cracks or snaps in the limb were heard, and were subsequently found to have been produced by separation of femoral or other epiphyses. One limb always proved more than sufficient for the neck. Whatever advantages may or may not arise from using the Prague seizure, one thing is sure, that, with a view to merely having sufficient strength of materials, it is not required; one leg is, in this point of view, sufficient. It is plain that this is not exactly proved by the experiments, for in them the weight acting on the neck exceeded that acting on the ankle by the greater part of the weight of the body; but the ankle will not have this advantage, except when the body is dragged downwards vertically, or nearly so, which is not done in practice.

I have spoken incidentally of the comparison between the power that may be exerted by dragging the child in podalic extraction without compromising its life, and the power that may be exerted by dragging the child by the forceps. While the limit of the former power is easily ascertained and has been just stated as about 100 lbs., it is no part of my present object to determine the higher limit of the latter, and it is a far more difficult matter. But there are various ways of showing that the latter is considerably higher than the former, which, as I have already said, is not the universal or even the general belief. I have made many experiments in connection with this subject, but I shall not here enter on them, satisfying myself with giving some easily appreciated evidence.

An accoucheur can decapitate a child by the efforts of podalic extraction; in other words, his available power overcomes the whole tensile strength of the fœtus. Few men pulling in an advantageous manner find much difficulty in applying a dragging force of 120 lbs.; but it is quite possible to apply a forceps to a fœtal head, at the brim of an actual pelvis or of one artificially constructed for experimental purposes, so as to defy the utmost efforts of the most powerful accoucheur. These iron hands can be made virtually of any strength, and the grasped spheroidal fœtal head is firm enough to resist such quasi-cephalotriptic compressing or otherwise destroying force, as they exert in maintaining their hold against a dragging force greater than can be used in podalic extraction, because greater than is sufficient to rend in twain a fœtal body.

A CRITICAL EXAMINATION OF DR. MUNRO'S VIEWS ON MALARIAL FEVERS AND CHOLERA.

By W. C. MACLEAN, C.B., M.D.,
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THE fourteenth volume of the *Army Medical Department Reports*, recently published, contains a paper on "Malarious Fevers and Cholera", by Deputy Surgeon-General Munro, C.B., head of the Medical Branch in the office of the Director-General, on which I feel constrained to offer some observations. It would not, perhaps, be difficult to assume the office of a critic, either anonymously or under a *nom de plume*, and thus escape thrusting myself *in propriâ personâ* before the profession. In the present case, such a course, it strikes me, would be neither fair to Dr. Munro nor otherwise suitable. Dr. Munro does not write anonymously; he puts forward his deliberate opinions in an official publication with all the weight he derives from his official position and his deservedly high reputation in the Medical Department of the Army. Moreover, the issues he raises in his paper are not matters of merely speculative interest; they involve questions of the gravest practical importance in medicine and sanitation. Opinions coming from such a source are entitled to respectful consideration and fair and responsible criticism. To what Dr. Munro has written I have given careful consideration, and I propose, in the following observations, to discuss the issues he has raised, I hope with the courtesy and fairness the author has a right to expect, and with the fulness the importance of the subject demands.

In all controversies the first thing to be done is to understand clearly, and to state exactly, the matter in dispute. In this case there is no difficulty, as Dr. Munro has plainly put the difficult thesis he has set himself to maintain with sufficient distinctness. It is—1. That there is no such poison as malaria; 2. That so-called malarial fevers, cholera, yellow fever, and heat-apoplexy, are merely different manifestations of one and the same disease, the difference being one not of cause, but of degree; 3. That the cause of the above diseases is "certain electrical conditions" (the nature of the said conditions is not explained), which are the outcome of "heat acting on moisture".

It will be seen at once that Dr. Munro admits the action of two agents which have always been thought active in evolving malaria from the soil; but, instead of agreeing with those who believe in the existence of any poison or "telluric influence" to which the convenient name of malaria has been given, he attributes the disease-producing agent to the above named electrical conditions acting with paralysing effect on the sympathetic nervous system.*

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* It is not denied that the sympathetic system of nerves is implicated in grave malarial fevers, and in specific yellow fever in particular. Many of the most notable objective symptoms in the latter point to this implication. Bellot the younger even insists that this can be demonstrated pathologically *post mortem*. The other nervous centres are implicated too. A pigmented condition of the brain is one of the most familiar of the morbid appearances in malarial fever. It is for Dr. Munro to connect the morbid appearances with the "electrical conditions" of which he writes so positively.

Lastly, whether in any case we have an intermittent or a remittent fever, or yellow fever, or cholera, or heat-apoplexy, depends on the extent to which this paralysis has taken place.

In an Introductory Lecture delivered by me at the opening of the present term at Netley, I called the attention of my audience to the fact that, in India at the present time, a school of ingenious writers has arisen, who, forsaking the fruitful but laborious method of bedside study, seek to advance practical medicine by the apparently more attractive and certainly more easy method of framing theories of disease, basing wide generalisations, and even deducing rules of practice from them of the utmost importance not to individuals only, but to whole communities. A better example of this it would be hard to find than in the thesis which Dr. Munro set himself to establish.

Turning first to the question of malaria, readers of our author's paper will be puzzled by the manner in which this nonentity is sometimes spoken of. Again and again, we are told there is no such poison as malaria, yet, at page 272, writing of ozone, the author says, “that, in excess, it is not only destructive to human life, but equally so to malarious poison”. If there be no such entity as malaria, it is hard to see how ozone or anything else can destroy it. There are, indeed, throughout this paper other contradictions equally puzzling. Thus, at page 269, Dr. Munro says: “How heat, or different degrees of heat and moisture, act so as to produce disease, I do not know; whether by the production of malaria poisonous to human life, or by direct influence on the nervous system;” while, a little further on, we meet with a confident statement to the effect that the said “heat and moisture” generate “certain electrical conditions”, which “conditions” paralyse the sympathetic nervous system, and so induce the hitherto deemed distinct diseases named above. Again: typhus and typhoid fevers are spoken about in the text as two distinct diseases, apparently in the sense commonly accepted by pathologists; but, when this is so, a note is added to the effect that “typhoid enteric fever is not included in this remark”; but what kind of fever the author means by typhoid, is nowhere explained.

It is, I confess, wearisome to have to discuss at this time of day the question whether or not the soil in certain places, and under certain sufficiently familiar conditions, is capable of giving off a poison capable of producing a class of fevers with phenomena so remarkable as to mark them off from all other febrile disorders by a line of demarcation so broad, clear, and distinct as to have been recognised by tolerably intelligent people in all ages; while pathologists have, in addition, with an unanimity not always observable in medical questions, traced to the same cause, even when it has operated without inducing the remarkable phenomena of paroxysmal fever in any of its degrees or forms, certain degenerations in the fluids and solids much too familiar to need mention here; and not only so, but to be traced and demonstrated in the organs of the fœtus, when the mother has lived and died under the influence of this poison.

Dr. Munro, like others who share his opinion, seems to attach importance to the undeniable fact, that the existence of malaria cannot be demonstrated, I suppose as a chemist demonstrates oxygen. But of the contagium of how many diseases can this be done? We know that a child exposed to the contagion of scarlatina gets scarlatina, and not measles; we know that the two diseases have certain features in common; but, from the observation of ages, we know that the poison which causes one is incapable of generating the other. It is probable we shall never know the exact nature of, or the difference between, the two specific poisons, more than we do now; we recognise their different effects when we see them, and that is all. It is almost humiliating to have to urge considerations so familiar, but it would appear they are sometimes lost sight of.

I must be forgiven also if I venture to remind those who hold with our author, that there is no such earth-born poison as malaria, that the word carries no other meaning beyond what the term plainly implies; physicians who use it pretend to no more exact knowledge of its nature than what they gather from its effects. Those who dispute its existence do not appear to see the force of the argument derived from the accumulated experience of countless observers and sufferers of different races in all regions of the globe where paroxysmal fevers prevail. This cannot be disposed of by vague phrases and statements about electrical conditions which are not supported by evidence of a kind to satisfy scientific inquirers, and which, apart from this, would fall with little effect on the ears of those whose hard fate it is to struggle for existence with this deadly enemy of the human race.

I decline altogether to reprint what is to be found in every text-book on medicine; viz., a list of places notorious for insalubrity from malaria. It is for Dr. Munro, and those who think with him, to explain in intelligible language what it is that has given such places the bad reputation that for ages has clung to them, and, in language equally clear, to explain the changes, be they in the “electrical conditions” or otherwise, that has rendered many such places in our own country, among others, once notorious for the prevalence of paroxysmal fevers and their sequels, now healthy. We may fairly ask those who hold the non-malaria theory to explain why the terrible remittent fever which scourged Hong Kong was unknown there until the soil was turned up and exposed for the building of the city of Victoria—a fact to which I can speak from personal knowledge; why paroxysmal fevers broke out in the environs of Paris when the ground was broken up during the construction of the fortifications in the time of Louis Philippe; how the same thing happened, as recorded by Trousseau and other observers, in the same city during the great excavations for building and other works during the Second Empire, and in other examples which might be multiplied indefinitely. If the soil did not give birth to a fever-generating poison in all or any of the above cases, what did? It is for Dr. Munro and his non-malaria friends to give us a rational explanation of the facts on their own principle.

When the authorities charged with the responsible duty of fitting out the expedition to the West Coast of Africa were devising the best means for the protection of the troops from malarious poison, Dr. Oldham, of the Bengal Army, addressed a letter to the *Times*, assuring all concerned that they were disquieting themselves in vain; they might take his word for it, there was no such thing as malaria. We have not since seen any attempt on this gentleman's part, or that of any of his followers, to explain the formidable paroxysmal fevers, with their serious complications, which the medical officers of that expedition had to treat on the spot, and with which we at Netley, in their hardly less serious sequels, had to deal; nor how it came about that many of the soldiers and seamen, and healthy fresh young men of the Army Hospital Corps, returned, after a few months' service in that pestiferous climate, looking like men who had served for twice as many years in the Peshawur valley. Will the “certain electrical conditions” of Dr. Munro, or the chill-theory of Dr. Oldham, account for it? or must we fall back on the saying of Dr. Parkes, that, when we speak of an unhealthy climate, we mean a malarious one? Certainly this old explanation better accords with a fact mentioned to me in the most spontaneous manner by many of the sufferers, both officers and men; viz., that when in the course of their fevers they sweated copiously, the towels with which they wiped their persons and the sheets in which they slept, when they had them, gave out the identical fœtid odour of the malaria-charged soil.

While, on the subject of the West Coast of Africa, it is allowable to ask if such a cause as that put forward by Dr. Munro, or the chill-theory of Dr. Oldham, or both put together, can explain, to the satisfaction of any unprejudiced truth-seeker, the crowded graveyards of Sierra Leone, that place of fatal memory to our race, the mention of which fills the mind with sadness, where whole families moulder away, the average duration of whose lives in that climate hardly exceeds a year; or the castle-yard of Cape Coast Castle, described by my friend Dr. Fleming “as almost covered with grave-stones”.

Nor can I resist inviting the attention of all who are sceptical as to the possibility of the soil at certain times and seasons, and under certain conditions, giving birth to a fever generating poison, to the contents of a deeply interesting letter from Colonel Gordon, C.B., R.E. (well known for the splendid service he rendered to China and to humanity in the masterly suppression of the merciless Taeping Rebellion), to his brother-in-law, Surgeon-Major Moffitt. Colonel Gordon is now engaged in completing a work began by Sir Samuel Baker; viz., the suppression of the slave trade along the upper waters of the great river whose source has been the subject of so much speculation and such anxious search. He writes what he calls “a medical letter” from the “entrance to the Soubate”, in which he describes a climate so pestiferous, that that of Cape Coast Castle appears by comparison salubrious. It is simply death to face it during what Colonel Gordon calls the “crisis” of the rains as the day declines. “The blacks, natives of the place, as the evening closes, retire to their houses, close their doors and windows, and light wood-fires, giving out abundance of smoke.” “The moment night closes”, adds the Colonel, “you experience a sort of indisposition, which seems inexplicable; you feel a sick sensation, which ceases if you get under cover with a wood-fire giving off a good deal of smoke”. In another part of the letter, he recurs to this indispensable precaution, without which he would rather sleep in a latrine; “the stench is palpable, and your mouth in the morning is as if you dined off copper-filings”. Towards morning, the sickness passes off, until the dreaded night returns. One is tempted to add, that England should be rich in officers like Gordon, when she can afford to risk his valuable life in the service, not of his country, but of a satrap of the Sultan of Turkey.

Before passing from this part of my subject, I have one more remark to make. Dr. Cornish, the Sanitary Commissioner of Madras, insists on the fact, "that fevers in India, taking one year with another, destroy twice as many lives as small-pox and cholera, and all other epidemic diseases, put together". This being so, the cause of such fevers becomes a question, not merely of interesting and curious speculation to medical men, but one of the gravest importance to a teeming population and to the nation that has assumed the responsibility of governing them. The Government of India has at this moment a task imposed on it requiring the aid of statesmen, engineers, and sanitarians in the first rank of their respective sciences. It is nothing less than to contrive well considered measures to prevent the recurrence of famines, and to stay the progress of those fevers, the destructive agency of which Dr. Cornish has so forcibly described. I repeat, "well considered efforts", for such they would need to be; for hitherto some of the irrigation works directed to prevent the first evil have not only failed, but have, by interfering with the natural drainage of certain districts, left them so saturated with moisture as to develope malaria to an extent that threatens to depopulate them. Let us speculate as much as we please on medical questions; but let such of us as are in a position in any, the smallest degree to influence, or distract, or embarrass the Government in the work they have to do, pause before we put forth theories, which, if acted on, may indefinitely delay the progress of sanitation. If the Government of India be tempted to embrace a theory that we in this country know would be very captivating to the minds of money-saving vestrymen, that fevers are the outcome of "chill" or "certain electrical conditions" of which we known nothing, and which lie out of the domain of human control, it would obviously follow that it is vain to contend with them.

Whether it be true or false that out of the soil, under certain conditions long recognised, a poison issues, which, for mere convenience sake, we call malaria, the belief has at least been fraught with good to mankind; for, just in proportion, in all places and in all climates, as we have carried out the measures believed to be antagonistic to the genesis of this poison, so have we diminished disease and death, and promoted human happiness and progress.

[*To be continued.*]

ON THE LOCALISATION OF THE FUNCTIONS OF THE BRAIN.*

By DAVID FERRIER, M.D.,

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In the short time allowed to me it is not my intention to read to you any elaborate paper on the localisation of function in the brain. I only wish to make a very few remarks, in order to bring before you more objectively, than by mere written description, some of the facts which I have published elsewhere, in the *West Riding Lunatic Asylum Reports*, and in a recent paper communicated to the Royal Society; and also to point out to you some of the bearings of the results of experiments on the lower animals in regard to the pathology and diagnosis of certain forms of brain disease. I presume you are all aware of the method of experimentation which was first introduced and applied by Fritsch and Hitzig, two German physiologists who experimented on dogs, and also of a similar method which I followed on a more extensive scale, not only on dogs but on several other of the lower animals, especially monkeys. It is chiefly with regard to the experiments on monkeys that I wish to speak to-day.

The experiments which Fritsch and Hitzig commenced, and those which I have made, have been repeated in this country and abroad by several experimenters; and I think that the main facts which are elicited by galvanisation of the brain are admitted by all. The interpretation of those facts, however, is a matter on which very considerable difference of opinion exists. Both Fritsch and Hitzig differ from the explanation which I give, as also M. Dupuy, M. Carville, Brown-Séquard, and Schiff of Florence. On the application of a galvanic or electric stimulus to certain regions of the brain, certain definite motor phenomena result. Hitzig and myself attribute these movements to excitation of the cortical substance of the hemispheres. Dupuy, who has repeated the experiments, and others who follow him, admit the definiteness of the movements which are caused, but they deny that they are dependent upon excitation of the cortical centres, asserting that the currents are conducted from the cortex of the hemispheres to the basal ganglia, the corpora striata, and motor tracts. Hitzig also makes a similar objection to my method.

In reference to this, I wish to make a short criticism. It is said by Dupuy, that when you place an animal fully under the influence of chloroform, you may stimulate the brain, but no action at all is produced; but when you stimulate the motor centres as well as the corpora striata or the motor nerves, then you get movements produced as before, notwithstanding the anæsthesia; therefore, he argues, the cortex of the brain cannot be motor, because it is not affected in the same way as the other motor centres. This seems to me to bear directly against himself, and to prove more conclusively the facts which I have brought forward and the theory I hold with regard to them. I have myself shown that the cortex of the hemispheres and the motor ganglia are differently influenced by anæsthetics. If you place an animal deeply under chloroform, you may irritate the cortex of the brain and no movement is produced; but if you expose the corpus striatum, you may excite movements, and when the corpus striatum is no longer excitable, movements may still be produced by stimulation of the corpora quadrigemina. This shows that the motor centres differ in their excitability under the influence of chloroform; and, unless it be proved that chloroform destroys the conductivity of brain-tissue, these facts rather favour the idea that the movements are dependent upon the excitation of centres in the hemispheres, which now have lost a function which they formerly possessed. It is said, on the other hand, that these movements are due to conduction; that the currents used are too strong; that they are conducted down through the substance of the brain to the motor ganglia. In answer to this, I will here refer to the brain of the monkey. In the first place, there are certain regions of the brain of the monkey which do not react to any stimulus, however strongly applied; as, for instance, the antero-frontal regions and the whole of the occipital lobes, which proves that conduction, if such exist, is only within certain limited regions. On the other hand, when the fissure of Sylvius is separated, and electrodes are placed on the island of Reil, which covers the corpus striatum, no movement results under the influence of a stimulus which excites movements in regions more distant from the great motor ganglia. Therefore, conduction cannot be the explanation of these facts. Still further, the phenomena which are produced by the application of a stimulus to points closely related to each other, are so different that they can hardly be explained by conduction. Conduction ought, if it be the explanation, to call forth all these movements in a mixed manner. Instead of this, they are so definite and predictable, that I undertake, on exposing the brain of an animal, to say, on the application of the electrodes, that the animal will now do this and now do the other. These results have always followed whenever I have given any demonstration. So that, taking into consideration the definiteness of the results, their predictability and uniformity, haphazard conduction is out of the question. For instance, if I place electrodes on this part of the brain of the monkey—the upper part of the superior temporo-sphenoidal convolution—the animal pricks up its opposite ear, turns the head to the other side, opening the eyes widely, and dilating the pupils. That is invariably the action produced. If I apply the electrodes just across the fissure of Sylvius, a point not further distant than the fraction of an inch from the previously stimulated region, the animal retracts the angle of its mouth.

Let me point out some of the chief centres, stimulation of which gives definite results. I may state generally that I regard the whole of the brain as divided into a sensory and a motor portion. Roughly, a line drawn up through the fissure of Sylvius, and carried through the parieto-occipital fissure to its extreme termination, cuts off the whole motor region, while all behind and below is sensory; and the external phenomena which result from the stimulation of the brain are to be regarded as an excitation of voluntary motor centres, or of the centres of sensation. With the aid of this diagram I indicate at the upper part of the ascending parietal convolution the leg centre; movements of the leg being produced on the opposite side of the body. In the upper part of the ascending frontal or the posterior part of the superior frontal there is a centre for certain movements of the arm and the leg, chiefly those for grasping. In the lower division of the ascending parietal, we have a centre for the movements of the fist. In the ascending frontal, behind the superior frontal sulcus, is a region the stimulation of which causes the action of the biceps, the animal raising its hand to its mouth and closing the fist. A little lower down, behind the posterior extremity of the middle frontal convolution, is the centre of action of the facial muscles, the zygomatics, and those which elevate the angle of the upper lip and the ala of the nose. At the posterior extremity of the inferior frontal, corresponding to what in the human brain is conventionally termed Broca's convolution, is a centre for the various movements of articulation. The stimulation of a corresponding region in dogs, which is situated also at the anterior extremity of the lower external convolution, produces exactly similar movements, the animal opening its mouth, putting out its tongue, and often barking loudly. The stimulation of no other part of the brain produces the same result. In cats there is a similar region, the stimulation of which causes them to mew, spit, and make all the signs corresponding to speech. This is the region which is usually destroyed in the disease known as aphasia. In the frontal convolutions in advance of the hand-centres, corresponding to the posterior half of the superior and middle frontal, we have a region connected with certain movements of the head; when it is stimulated, the animal always turns its head on the opposite side, and its eyes also and the pupils dilate. From the phenomena which result from stimulation of the region situated behind those which I have pointed out, I am inclined to regard these as being the cerebral centres of the sensory nerves; that is, there are special regions for sight, special regions for hearing, special regions for smell, and for taste, and touch.

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* Delivered before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

As to the signification of these movements, I regard the motor centres as centres of voluntary motion; that is, the centres by which what we term the will acts downwardly upon the motor apparatus. Dr. Burdon Sanderson has recently communicated a paper to the Royal Society, in which he rather controverts the opinions which I have expressed in regard to the signification of these centres. Owing, perhaps, to some ambiguity in the terms which have been employed, he has mistaken my meaning; he has supposed that I regard the motor nerves connected with the individual muscles which are set in action as being directly carried upwards to the surface of the brain and there co-ordinated and combined. That is not the view I hold. A simple diagram will explain more clearly the signification which I attach to the term motor centre. [Here the lecturer drew a diagram, in which he represented the cortical centre, the corpus striatum, the spinal nuclei, and the motor nerves passing to the combination of muscles concerned in the production of a definite movement. Pointing to the cortical centre, he explained that the functional activity of this part caused the act through the medium of the lower co-ordinated ganglia in the corpus striatum and the spinal cord. The cortical centre he regarded as that which was concerned in the first instance in the effort of will.] In the corpus striatum, all the movements are integrated which are differentiated in the hemispheres. The stimulation of the corpus striatum usually produces all the movements which are induced or caused individually by stimulation of localised regions in the hemispheres. Dr. Sanderson, by stimulating the medullary cone of fibres which pass from the corpus striatum to the hemispheres, causes the same localised movements which result from the stimulation of the cortex itself. This, however, is entirely in accordance with my own views. The stimulation of the medullary fibres by electricity is essentially the same as that caused by any functional activity of the grey matter of the hemispheres corresponding to these fibres; so that, in reality, there is no essential difference between the interpretation given by myself and the facts which Dr. Sanderson has demonstrated.

Let me say a word in regard to the bearing of some of these results on pathology and the phenomena of paralysis arising from brain-lesion. The destruction of a motor centre in the brain of a monkey causes loss of voluntary power over the movements elicited by stimulation of the respective centre. The paralysis, however, differs in degree, according as the movements are independent or associated with those of the opposite side. I have shown very definitely that in monkeys and in the dog, and other four-footed animals, you have certain differences which have led to what I regard as errors on the part of Fritsch and Hitzig in reference to the signification of the results following the destruction of those centres. If you destroy the centre for certain complex movements of the fingers in monkeys, you produce an almost complete paralysis; but if you destroy the centres which cause the movements of the paw in dogs, you rarely obtain the same amount of paralysis, but often a mere degree of weakness. The facts of my experiments bear out the hypothesis of Dr. Broadbent, that the movements which are associated together on both sides of the body are bilaterally co-ordinated through communicating fibres between internal spinal nuclei or some higher centre, and through the influence of the sound hemisphere the lower ganglia are enabled to carry out the movements which have been associated together. They also afford a very distinct explanation of the symptom in hemiplegia which has been often described, but of which I think no very definite explanation has been given before, namely, the fact that in hemiplegia there is a temporary deviation of the head and eyes to the sound side; *e.g.*, in left hemiplegia you will have the head and eyes directed to the right side of the body. The explanation is this. There exists in the hemisphere a centre which causes the movements of the head and eyes to the opposite side, and when this centre is destroyed by lesions which cause paralysis, the influence of the corresponding centre in the sound hemisphere, causes the head and eyes to be directed to the sound side, because it is no longer counterbalanced; so that turning the head and eyes to the opposite side is simply an example of the same kind of lateral distortion which we observe in facial paralysis.

Results of great importance are revealed by destruction of the part which I call the centre for the mouth. The excitation of the brain produces usually a cross action, that is to say, the excitation of the centre of one hemisphere causes action of the opposite side of the body; but, in regard to the opening of the mouth, the movements of the tongue, and all the movements concerned in articulation, the action is not cross but bilateral. When destructive lesions occur in the corresponding part of the brain of man on one particular side, we have, as a rule, or in a great majority of instances, a condition of aphasia, that is, a condition in which the individual is unable to express himself in articulate speech. In this case there is no paralysis of the function of articulation. In discussing the pathology of aphasia, I think we ought to exclude all cases of congenital defects, such as deaf-mutism, and all cases where the function of the brain generally is interrupted, where persons have not only lost their speech but their other faculties. We ought to leave out of the account all cases where there is an interruption of the mechanical apparatus, or where the individual may have a will to speak but the way is interrupted, or generally all cases of paralysis of the muscles or interference with the mere apparatus of articulation. It is an established fact, that lesions of this region of the left hemisphere usually cause aphasia. We must allow that there are instances in which aphasia is not caused; and Dr. Bateman of Norwich, in his work on Aphasia, has brought forward numerous arguments against the localisation of speech, and so far as clinical observation and morbid anatomy alone went, I think he succeeded in casting a doubt on the localisation of a speech centre in one hemisphere at least. But granting that, we have a great number of instances of aphasia resulting from very limited lesions, and how are we to account for this? I think that some further light is thrown on the subject by the results which I have laid before you. These centres, besides being centres of voluntary motion, have a psychical signification, and form, as it were, the motor substrata of mind. The mouth-centre is the centre, not only for the movements of articulation, but also for the memory of articulation. What are words? Words are merely certain articulations effected under the guidance of the ear. The memory of words is the memory merely of certain articulations so affected. Words, themselves, are merely symbols of ideas, and the memory of words need have no necessary connection except by associating fibres with the organic seat of the ideas that they represent. When you destroy the organic seat of the memory of articulations on both sides of the brain, you cut out the whole memory of words, but you do not necessarily affect the memory of the ideas of which these words are the symbols.

On destruction of this part of the brain, there results a loss of speech while the ideas still remain, so that, when you pronounce a word to an individual who is aphasic, he knows what it means; he cannot find the word himself; the ideas are excited, though he has lost the power of expressing them. In a great majority of instances, the lesions in aphasia have been on the left side; in some instances, a lesion on the left side has not produced it. It must be remembered that the brain is a double organ, and that the centres of articulation are symmetrically situated on both sides. It has, however, been sufficiently demonstrated, that the two sides of the brain have an unequal preponderance in the initiation of voluntary movements. Just as the right side of the body is the most used, so the left side of the brain is chiefly concerned in the initiation of voluntary acts. When you destroy the speech centre on the left side, you, as it were, cut off a man's right arm; you destroy not the memory of words, because that exists in the right hemisphere, but you destroy the power of getting at the words by an act of will, an essential distinction which has been drawn by Dr. Hughlings Jackson; but there is no reason, except, perhaps, the facts of heredity and education, why persons may not use the right side of the brain in speech instead of the usually employed left.

There are several cases of aphasia with left hemiplegia; one such case has been lately reported in the *Medical Times and Gazette* by Dr. Russell of Birmingham; but, as a general rule, one observes right-sided development in all animals. Aphasia is usually associated with hemiplegia, the effect being more marked in the arm than in the leg. The explanation of this I have alluded to above. The destructive lesion which causes aphasia usually extends into the centres which are concerned with the movements of the arm and of the leg. The centres for the arm are in more immediate relation to the speech-centre than the centres for the leg; hence in lesions affecting merely the cortex, the arm may be paralysed while the leg may entirely escape.

TREATMENT OF RHEUMATIC FEVER BY CYNARA.

By E. COPEMAN, M.D., F.R.C.P.,
Senior Physician to the Norfolk and Norwich Hospital; President of the British Medical Association.

As long ago as March, 1833, I published in the *Medical Gazette* (vol. xi, p. 844) some cases of rheumatism treated with the common artichoke in the form of tincture and extract. I was at that time the resident medical officer of the Norfolk and Norwich Hospital, and the physicians gave over to me their cases of rheumatism, that I might put fairly to the test the value of the remedy I had introduced to their notice. The result was so encouraging that I have ever since employed the tincture and extract of cynara in my own practice for the cure of rheumatism, and have been perfectly satisfied with the results. My reason for again addressing the profession on the subject has arisen from the fact of my having had recently some cases of rheumatic fever, which have been more speedily relieved and cured by this medicine than by any other treatment that I have witnessed; and my object is to induce others to give it a trial and to report the results in our widely circulating JOURNAL. This will be carrying out, as far as it goes, the idea I wished to impress upon those present at our annual meeting at Norwich—that it might do much good if all who believe they have facts in physic to rely upon, would communicate them to others through the JOURNAL, and court replies from such as will put them to the test of their own experience.

I will describe briefly one or two of the cases of rheumatic fever to which I have alluded as of recent occurrence. The hospital porter, twenty-four years of age, tall and not robust, had suffered from several severe attacks of rheumatic fever. The first attack he had was in 1870, when he was laid up for seven weeks. In the following year, he had a slighter attack, and was only confined for about ten days. At the end of the same year (1871), he was appointed to the London police, only doing night duty occasionally. At the commencement of 1872, he was in Guy's Hospital for ten weeks with a severe attack, which affected all his limbs and the pericardium also. On March 29th in the present year, whilst in his office as porter at our hospital, he was suddenly seized with acute rheumatism, affecting most of his joints, and preventing almost entirely all voluntary movements. He had also a good deal of fever, with rapid pulse, and the peculiar sweating belonging to the disease. He was placed in one of the wards under my care; and, according to my usual plan, I immediately treated him with cynara, and gave it in the following form, viz.: ℞ Potassæ bicarb. ʒj; aquæ camph. ad ℥viij; tincturæ cynaræ ℥j; syrupi papaveris alb. ℥ss. M. Two tablespoonfuls were ordered to be taken every four hours, with as much of the extract of cynara as would make two moderately sized pills. Lemonade was given him to drink. He very soon got relief; and I find in my notes that on April 24th he had had no pain for a fortnight, and that the swelling left the joints very soon after commencing the treatment. From past experience, the man expected a much more prolonged illness, and was astonished at the speedy relief afforded by the medicine. He has been performing his usual duties ever since his recovery, and up to the present date (November 19th, 1874) he had no return whatever of this disease.

A girl, aged 19, living in the country, was admitted into the hospital on June 20th, 1874, with rheumatic fever. Her lower limbs were more affected than the upper, and she was quite unable to stand, or bear the ankles to be moved; she was attacked only a day or two before, and both her feet were beginning to swell. She had all the usual symptoms of acute rheumatism, and the urine was albuminous—specific gravity, 1025. I gave her the same pills and mixture as before described, with lemonade to quench her thirst; and in four days she had lost all pain. On the 29th, she was able to walk, and was allowed to leave her bed; on July 6th, she was discharged cured.

Three other cases occurred about the same time, and were soon relieved by the same treatment.

No other medicine has in my experience appeared to be so efficacious as cynara in rheumatism, acute or chronic, but I have frequently heard of its having failed in other hands; and I suspect the reason is that it is often prepared from leaves gathered at an improper time, when there is no medicinal virtue in the plant. The leaves should be gathered just before the top of the vegetable is fit for food, and whilst they are full of juice; if left until the top is cut off for cooking purposes and the plant begins to wither, no good will be derived from it, and, if given, it would be condemned as useless and inert.

Now, as rheumatic fever is a disease of frequent occurrence in almost all localities, though in some more than others, there would be no difficulty in accumulating facts, *pro* and *con.*, if only practitioners could be persuaded to give the treatment I have mentioned a full trial. I am perfectly convinced that no harm would arise to the patients from trusting to it for a time; and I feel, moreover, certain that a very large number would be materially benefited by adopting it. I repeat that it is absolutely necessary to pay attention to the time the leaves are gathered, and to be careful in the preparation of the medicine; and it would be perfectly safe to increase the dose of the tincture gradually from one to four drachms should the case prove obstinate. I know little or nothing about the physiological action of the drug; but Mr. Sutton, a chemist in Norwich, takes an interest in the subject, and will endeavour to ascertain, if possible, the active principle contained in it.

CASE OF AGGRAVATED SYMPTOMS OF RENAL CALCULUS CURED BY AN EXPLORATORY INCISION.

By THOMAS ANNANDALE, F.R.S.E.,
Surgeon to the Edinburgh Royal Infirmary, and Lecturer on Clinical Surgery.

J. S., aged 36, was admitted into the medical wards of the Royal Infirmary, under the care of Dr. George Balfour, on April 30th, 1874. About two years before her admission, she was seized with a pain in the left lumbar region, and at the same time blood was passed in the urine. These symptoms had continued more or less since, but had become much aggravated during the last five months. On admission, the patient was somewhat emaciated, and she complained of pain over the region of the left kidney, and shooting down in the direction of the ureter. There was frequent micturition, with pain in the act; and an examination of the urine showed the presence of blood, pus, and crystals of the triple phosphate in it. Her temperature was 100.4. There was well marked tenderness on pressure over the left kidney, but no fluctuation or enlargement could be detected. The patient's other internal organs were apparently healthy, but she suffered from attacks of vomiting. Internal sedatives, hypodermic injections, and soothing external applications were carefully tried, but without affording any relief; and she was, therefore, transferred to my surgical wards on May 27th.

As a careful study of the case pointed very markedly to an irritation of the left kidney, caused, most probably, by the presence of a calculus, and, as the patient's health was decidedly failing, I suggested that an exploratory incision should be made in order that the organ might be examined, and the calculus, if found, removed. The patient willingly consenting, I, on May 29th, made an incision in the left lumbar region. The incision, about seven inches in length, was carried along the outer border of the erector spinæ muscle, and the layers of the lumbar fascia having been divided, and the fascia transversalis scratched through, the kidney and upper portion of the ureter were freely exposed. A most searching examination of the kidney and greater part of the ureter was made by myself and others who assisted at the operation, but no abnormal condition of the organ could be discovered, and no calculus could be felt. The operation was performed under the antiseptic spray, and the edges of the wound having been brought together with antiseptic silk stitches and a drainage-tube inserted, carbolised muslin was applied in the usual way. For the first three days after the operation, the patient suffered severely from sickness, but this was relieved by small quantities of opium, and iced champagne and brandy. On June 1st, she was entirely free from her old pain and other symptoms. Micturition was natural, and there was none of the old tenderness over the kidney. On June 27th, it was noted that her progress had been satisfactory since last date, with the exception of an attack of bronchitis, from which, however, she had now recovered. There had been a copious discharge of pus from the wound, but the pus had always been perfectly sweet and free from any putrefaction. This discharge had now ceased, and, the wound having become superficial, the drainage-tube was removed. On July 23rd, the patient left the infirmary for the Convalescent Hospital, from which she returned at the end of three weeks, perfectly cured, and her health completely established. Up to November 24th, the patient remained in good health, and perfectly free from her old renal symptoms.

REMARKS.—An account of this case is important, and interesting for two reasons.

First, it proves that the kidney and ureter can be freely exposed and handled without serious results following the operation, and it confirms the opinion which I expressed in the following words, in a paper published in the *Edinburgh Medical Journal* for July, 1869. "I should have no hesitation in cutting down through the loin and exposing the kidney, providing the symptoms of a calculus were well marked, of some standing, and had resisted other treatment." The failure of other means to afford relief, and the serious condition of the patient's health, justified, in my opinion, an exploratory operation in the case related.

Second, the complete cure which followed the operation is a curious but encouraging fact. The absence of any discoverable condition which could have caused the symptoms, makes it impossible to decide in what way the operation acted as a curative measure, but that it did so is indisputable. The difficulty of making a certain diagnosis of the presence of a renal calculus in all cases, by a study of the symptoms, and by external examination, is well illustrated in the present instance.

The good result in the case points to the employment of a free exploratory incision, or to some powerful counterirritant in the treatment of renal symptoms such as existed in this patient, should ordinary means fail to relieve.

CASES OF RUPTURE OF THE UTERUS AND VAGINA.*

By THOMAS MORE MADDEN, M.D., M.R.I.A.,
Physician to St. Joseph's Hospital, Dublin; lately Examiner in Midwifery, etc., Queen's University, Ireland; Ex-Assistant Physician Rotunda Lying-in Hospital; Corresponding Fellow of the Edinburgh Obstetrical Society, and of the Gynæcological Society of Boston, U.S.; etc.

THOUGH many years have elapsed since the opinion that rupture of the uterus is an occurrence from which recovery is impossible, was disproved by the remarkable cases published by my distinguished friend Dr. M'Keever of Dublin, still this remains the most fatal, though, fortunately, the least frequent, of all the complications of labour. The relative frequency as well as the general fatality of this accident may be seen by the following table, which I have compiled from all the available statistics of the great Maternity Hospital with which I have been connected.

Table of Cases of Rupture of the Uterus in the Rotunda Hospital:

Date.	Authority.	Total Confinements.	Cases of Rupture of the Uterus.	Primiparæ.	Multiparæ.	Recovered.	Died.	Sex of Children.	
								Male.	F.
	Dr. Clarke	10,387	8	1	7	1	7		
	Dr. McKeever	8,600	20	2	18	2	18	15	5
	Dr. Collins	16,654	34	None.	34	2	32	23	11
	Dr. McClintock Dr. Hardy	6,634	9	None.	9	None.	9	8	1
	Dr. Johnston Dr. Sinclair	13,748	17	1	16	1	16	10	7
1868 1873	Dr. Johnston	5,791	4	1	3	None.	4	3	1
		61,814	92	5	87	6	86	59	25

Four cases of this accident have come within my own observation. Of these, two occurred in the Lying-in Hospital, one in an extern maternity case to which I was summoned, and the fourth I saw in consultation. Of these, three died and one recovered. And, as this complication is, as has been just shown, comparatively rare and generally fatal, I think that the particulars of the latter case may be of some interest to the Association.

CASE I.—May 31st, 1874. I was called at 6 A.M. to see a case in consultation with Dr. Dudley White. The patient was a large plethoric woman, in labour of her eleventh child. It was an arm-presentation, and the hand had come down beyond the external parts. She had been in labour since the previous evening under the care of a midwife, who appears not to have made out the presentation; at least no assistance was sent for, although the pains were very violent and unremitting till about 4.30 A.M., when, as she herself stated, after a very severe pain she felt something give way, and from that moment the pains ceased. About 5 A.M., Dr. Dudley White was summoned, and immediately after his arrival kindly afforded me an opportunity of seeing the case with him. The arm was now protruding from the vulva; the hand was swollen and discoloured. The woman was in an extremely weak and exhausted condition; and, having first given her a stimulant, we moved her to the edge of the bed (not very easily, indeed, as she was a woman of enormous size), and at once proceeded to effect delivery by version. I found some difficulty in turning, as the body of the child was firmly wedged in the pelvis. The child was a boy weighing about ten pounds, and of course was still-born. After a short interval, Dr. Dudley White introduced his hand to remove the placenta, and found that it passed into the peritoneal cavity. On examination, we discovered a large rent extending obliquely upwards and forwards across the anterior wall of the vagina and posterior wall of the cervix to the body of the uterus. It was completely involving all the coats of the injured parts, and was so wide that my hand slipped at once into the abdominal cavity amongst the coils of the intestines; nor could the child have escaped passing through this vast laceration were it not for the manner in which it had been wedged down into the pelvis before the rupture occurred. As soon as the placenta was removed, I grasped the fundus uteri until I felt it pretty firmly contracted beneath my hand. There was little external hæmorrhage, but a considerable effusion of blood was going on into the peritoneal cavity from the open uterine vessels. The patient was now pale and collapsed, and it was evident that any further loss of blood must be fatal; therefore, with Dr. White's sanction, I saturated a sponge in the strong solution of perchloride of iron, and applied it freely to every part of the rent. The effects were instantaneous. The woman complained of intense pain, but the hæmorrhage ceased completely, and the lacerated gaping wound in the vagina and uterus contracted sensibly under the stimulus. The woman was still cold, pulseless, and apparently moribund. Brandy and forty drops of Battley's liquor opii were thrown up by the rectum, and sinapisms were applied over the heart, etc. I left her, firmly expecting to hear of her death that afternoon. To my surprise, however, Dr. White told me she was still alive, and I again saw her with him. We then agreed to give her opium and calomel in grain-doses of each every fourth hour. The same treatment was continued during the following day; and the intervals between the medicine were gradually lengthened on the subsequent day.

It would be needless to dwell on the progress of the case, further than to say that she recovered perfectly, although the convalescence was interrupted by a severe attack of metroperitonitis. She was able to sit up on the tenth day after the accident, under the most judicious care of Dr. White, to whose unremitting attention and skill this patient in no small degree owes her recovery from the most serious complication of parturition.

In the foregoing case, all the usual premonitory and actual symptoms of the accident occurred in their ordinary sequence. In the one I am about to relate they did not, nor was the accident discovered until after the patient's death. The rupture in the first case was promoted by violent, unremitting, but ineffectual uterine action, the head being so firmly wedged into the pelvis that advance without assistance was impossible; then came fixed suprapubic pain; next, after a violent expulsive effort, the patient screamed out that something had given way; the pains ceased, and the presenting fœtus somewhat receded. The pulse, which had been hard, quick, and full, now suddenly fell in volume, but increased in frequency; the abdomen became swollen and tender, the tongue dry, the skin cold, and the vaginal discharge sanious. In the following case none of these symptoms presented themselves.

CASE II. *Complete Separation of the Uterus from the Vagina.*—Ellen Deegan, from Lower Mecklenburgh Street, was admitted to No. 3 Ward March 12th. Her age was 33: it was her first pregnancy. She was delivered the same night a 11.45 of a healthy female child weighing six pounds. She was eighteen hours in labour, five hours in the second stage, and the third stage was immediate. She had a very long first stage, and when admitted had been nearly eight hours in it. The os was about the size of a shilling, and the head low down in the pelvis, pressing on the cervix uteri. Two warm baths were given, which had the effect of gradually relaxing the os uteri. The pains in the second stage were weak, and there was considerable delay from inertia. A stimulating enema, and afterwards a dose of ergot, having been first tried without effect, she was put under chloroform, and I delivered her by the forceps. I had no difficulty whatever in this operation; all that was necessary was to make the turn, and no force was required or used. The child was born alive, and the operation did not occupy two minutes. On the following day (13th), in the morning, there was tenderness on pressure over the abdomen, and her pulse was 100. She was ordered turpentine stupes and poultices, and draughts containing one drachm of turpentine with fifteen minims of acetum opii every third hour. Wine and beef-tea were administered. On the 14th, there were less tenderness and tympanites. The treatment was continued. On the 16th, at 4.30 P.M., she suddenly became collapsed, and died at 9 P.M.

A *post mortem* examination was made March 17th. On opening the abdominal cavity, the peritoneum was found in an advanced stage of inflammation. That portion of it covering the uterus was slightly ulcerated, and the lower part of the peritoneum was black and discoloured; but the peritonitis was not general, the upper half of this membrane being nearly normal in appearance. The left ovary was healthy; the right congested and enlarged. The uterus was intensely inflamed in the cervical portion, which was actually in a state of sphacelus. The ulceration had extended completely through the cervix, so as to have entirely separated the uterus from the vagina; the line of separation being as sharp and clean as if effected by the knife. The fundus and body of the uterus externally presented no abnormal appearance; but, on making a section, the middle, and still more especially the internal muscular coats, as well as the lining mucous membrane, were found to be much inflamed, the evidences of inflammation being most marked in the lower portion. The vagina was, particularly near the vulva, also in a state of intense inflammation, and had sloughed considerably on its anterior wall.

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* Read before the Obstetric Medicine Section at the Annual Meeting of the British Medical Association in Norwich, August 1874.

SIMPLE PNEUMOTHORAX, WITH COMPLETE RECOVERY.

By SAMUEL WILKS, M.D., F.R.S.,
Physician to Guy's Hospital, etc.

CASES of this kind are sufficiently rare and remarkable to warrant a record of them in the JOURNAL. Besides the case presently to be mentioned, I have never seen but two other examples of the kind, pneumothorax being nearly always associated with well marked phthisis, empyema, or injury. The first case was that of a young man who, whilst engaged placarding the walls in his avocation of bill-sticker, suddenly fell to the ground, and was brought to the hospital in an apparently dying state. He was gasping for breath, which was immediately seen to be due to a rupture of the lung, as the left side of the chest was universally tympanitic. Paracentesis was discussed; but, as he soon rallied from his collapsed condition, it was postponed. On the following day, the disturbed circulation had become somewhat restored, and he then made a speedy recovery, without a single symptom denoting any pulmonary or pleuritic disease.

The second case I saw was under the care of the late Dr. Hughes, and occurred in an elderly man who had been the subject of winter-cough and shortness of breath. He was suddenly seized with intense difficulty of breathing, which was found to be due to an universal pneumothorax on one side. He was previously well, had no symptoms of any pulmonary disease, and made a complete recovery. Dr. Hughes suggested that he had ruptured a bullous portion of an emphysematous lung.

The following case I saw in consultation with Mr. Halls, of Horsleydown and Croydon, who has furnished me with the following particulars. Mrs. P., aged 30, eight months advanced in pregnancy, was quite well up to May 7th, when she thought she took cold from sitting near an open window; but she was not ill enough to seek advice or keep indoors. On the 17th, she was seized with difficulty of breathing, and sent for Mr. Halls. He found her suffering from great distress of breathing; and, on examination, that she had complete pneumothorax of the left side. She was continually coughing, which seemed to be of a nervous or spasmodic kind. These symptoms continued, and on the 19th I saw her. The breathing was very quick and gasping, as of impending suffocation. The whole of the left chest was hyperresonant, and not the slightest breath-sound could be heard. On coughing, no metallic sounds could be detected, or other signs showing a present communication between the lung and pleural cavity. The chest was of normal size. The question of treatment was anxiously discussed. We considered that, if there had been good evidence of the existence of a hole in the lung, and if at the same time the chest had been bulging, we should have been warranted in tapping the patient; for, even had we made a free communication between the chest and the external air, this condition would have been better than one where air was forcibly pumped into the chest and was exerting a baneful pressure on the heart and surrounding parts. If, as we believed was the case, the ruptured lung had already closed, there arose the question of the propriety of tapping the chest by a valvular trocar or aspirator, so as to pump off the air and allow the compressed lung to expand. As, however, the dyspnœa was less urgent than at the onset, and the circulation had already partly accommodated itself to the altered circumstances, we thought we would wait. We gave a doubtful prognosis, because we stated that, if the urgent symptoms passed off, it was probable that a pleurisy would result, and that months might elapse before recovery took place by means of contraction of the chest. Our fears were, however, falsified; she was soon afterwards delivered of a healthy child, and made a good convalescence. She went into the country; and, when she returned three months afterwards, Mr. Halls found her perfectly well. She could walk uphill without any difficulty; her breathing was natural; and, on examination of the chest, there was a good natural breath-murmur all over the chest. I saw her to-day (in the beginning of December), and she was quite well.

ON THE DURATION OF AN IMPRESSION CAUSED BY PRESSURE ON THE SKIN.

By ALEXANDER FLEMING, M.D., F.R.C.P.,
Consulting Physician to the Queen's Hospital, Birmingham.

IN the examination of applicants for life-assurance, I have for many years made a practice of observing the mark on the forehead caused by the pressure of the hat, and noting the degree of impression and the length of time required for its effacement—the intensity and permanence of the mark, like the indentations on the side of the tongue, for the most part indicating debility or want of tone. The observation thus in some degree helped me to a knowledge of the constitution of the applicant; but, as will be readily understood, the mark varies much with other circumstances influencing pressure on the forehead, as the shape of the head, the form and material of the hat itself, and so lessening its utility as a sign. These observations led me to think that some useful hints in practice might possibly be obtained by determining more accurately the degree and duration of an impression on the skin produced by pressure. Hence my reason for devising the instrument represented in the adjoining figure (1), which is about one-fourth of its real size.

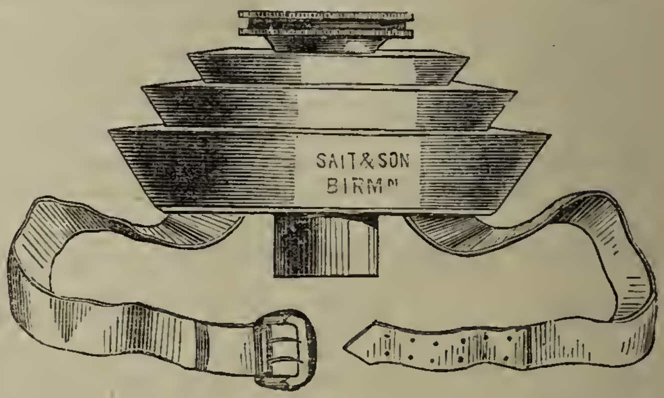

Fig. 1.

The instrument consists simply of three weights, of 1 lb., 8 oz., and 4 oz., sliding over a central rod, and fixed by a screw at the top: the entire weight is thus 1 lb. 12 oz. Below is a stamp (see fig. 2), one inch in diameter, and divided into four compartments. The points and radiating lines of the die are flattened, while the rings and the transverse lines have a sharper edge.*

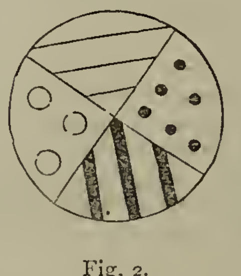

Fig. 2.

The impression on the skin is produced solely by the weight of the instrument, the strap serving simply to keep it in place. It may be applied to the forehead, the fore-arm, or the back of the hand. In making an observation, I have found five minutes to be the most suitable time of application. At the end of that time, a well marked impression of the die is produced on the skin, and occasionally the surface is at the same time a little reddened. The time required for the effacement of this impression varies much. I have seen it pass away completely in three minutes, while in other cases traces of the mark may be observed for twenty or even twenty-five minutes. The more vigorous and the more healthy the individual, the more quickly is all trace of the impression removed.

These observations can only be made satisfactorily in the wards of a hospital; and, unfortunately, very soon after I had commenced to make them, my health gave way, and I have not since had an opportunity of resuming them. I notice the subject now, chiefly in the hope that some young hospital physician may be induced to resume the observations, and conduct them on a scale sufficient to determine the practical value of the indications thus furnished.

Had I been able to prosecute the subject, it was my intention to examine the effect in health, on the time required for effacement, of heat, cold, electricity, fatigue; of stimulants; and of several medicines, as iron, antimony, opium, atropine, and strychnia; as well as to note the changes produced by acute and chronic diseases.

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* The instrument was made for me by Messrs. Salt and Son, Bull Street, Birmingham.

REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

VI.—Antagonism between Tea, Coffee, Cocaine, Theine, Caffeine, Guaranine, on the one Hand, and Morphia on the other. (*Continued.*)

D. *Antagonism between Infusion of Tea and Meconate of Morphia.*

Five experiments were made on dogs with reference to this point, but they were abandoned on account of the difficulties attending the investigation and the unsatisfactory results obtained. The preparation employed was made from a strong extract, prepared by Dr. Cook from three pounds of the best green tea, by dissolving the extract in warm water. This aqueous solution of the extract, while tolerably warm, was injected into the stomach of the animal by means of a stomach-pump. The difficulties attending this method of inquiry were as follows. 1. The tea was frequently vomited within so short a period after its introduction as not to afford time for the exercise of any antagonistic action to the effects of the meconate of morphia, which it might be supposed to possess. 2. The animal was so much excited by the operation of the introduction of the stomach-pump, that it was very difficult afterwards to say how far the effects were produced by the operation, and how far by the introduction of the tea. As a general example of the kind of action, the following two experiments may be quoted.

Experiment 551. A mongrel terrier dog, weighing 24 lbs., had one grain of meconate of morphia in forty minims of warm water injected subcutaneously under the skin of the back. The usual effects were produced of slight nausea, restlessness, stupor, passing into a semicomatose condition, in which latter state the animal continued for a period of six hours. It then slowly recovered.

Experiment 552. The same dog, five days afterwards, was now found to weigh 23 lbs. All the effects of the meconate of morphia had disappeared. One grain of meconate of morphia in forty minims of warm water was subcutaneously injected under the skin of the back. Immediately thereafter, eight ounces of a strong aqueous solution of the extract of tea were injected into the stomach. Five minutes afterwards, this was rejected by vomiting. At the end of another period of five minutes, another injection of eight ounces of tea was given. Part of this was almost immediately rejected. The animal was now very restless and irritable, and it was by no means easy to make any observations of its condition, as it readily attempted to bite. Ten minutes after the last injection of tea, a third dose of eight ounces was given. This was retained. The dog was now much excited. It ran up and down in the laboratory, with a staggering gait. Occasionally it would lie down for a few moments, and again rise to begin its perambulations. There was no stupor strictly speaking, but it had a dull heavy expression of eye. There was no coma. It urinated freely and frequently. There was also diarrhœa, attended apparently by tenesmus. The dog continued in this condition for nearly six hours. At the end of this time it began slowly to recover. The most evident effect in this experiment was the intense restlessness of the animal. There could be little doubt that the tea counteracted the physiological action of the meconate of morphia.

An attempt was made a week afterwards to repeat this experiment on the same animal, but it failed completely, as the tea was quickly rejected by vomiting. It was noticeable, however, that in this case the excitement was much less. The general results of these experiments are recorded in the following table.

These experiments were considered to be so unsatisfactory, that they were abandoned. The great difficulty was, that the tea was rejected so quickly by the stomach. This irritability of the stomach was not the effect of the introduction of the tea by the stomach-pump, but was due to the action of the meconate of morphia. That this is the true explanation, is supported by the two following considerations: 1. That in the dog the action of meconate of morphia alone is almost invariably to produce nausea and vomiting; and 2. That when six or eight ounces of warm tea are injected into the stomach of a healthy dog, without meconate of morphia, there is no nausea or vomiting.

Table LXI.—*Showing the Effects in Dogs of Infusion of Tea and Meconate of Morphia.*

No. of Experiment.	Weight of Dog.	Dose of Meconate of Morphia in grains.	Dose of Infusion of Tea in ounces.	Result.	Remarks.
551	24 lbs.	1	No tea	Recovery	Nausea; restlessness; stupor; slight coma.
552	23 lbs.	1	8 ounces 8 ounces 8 ounces	Recovery	Nausea; excitement; no stupor or coma.
553	26 lbs.	$1\frac{1}{2}$	24 ounces in 4 doses	Death	Tea rejected by vomiting; stupor; coma; death in 3 hours.
554	24 lbs.	1	20 ounces in 3 doses	Death	Ditto; death in $2\frac{3}{4}$ hours.
555	26 lbs.	2-3rds	16 ounces in 3 doses	Death	Ditto; death in 8 hours.

E. *The Antagonism between Meconate of Morphia and strong Decoction of Coffee.*

It was found that a strong decoction of coffee was rejected so quickly by the stomach, while the animal was affected by meconate of morphia, as to take away all hope of exercising any influence on the physiological action of that drug.

The whole series of experiments on the antagonism between tea, theine, etc., and morphia, as now detailed, appears so encouraging, as to merit further inquiry. The importance of the subject cannot be overestimated. Not only should further experiments be made on animals, but observations instituted on man with limited doses which could easily be carried out. Clinically, also, in hospitals, much might be done to further this investigation.

In the autumn of 1869, I received a letter from Professor Sewell of Quebec, directing my attention to the influence of tea as an antidote to poisoning by opium. He refers to a case of his published in the *Lancet* for July 1865 or 1866, and says: "As I consider the case a most important one, showing the wonderful power of green tea, not only in poisoning by opium, but also in that by alcohol in the coma of fever, and probably in puerperal convulsions, and in other cases of absorption of urea, I give you the case from memory. Mrs. H., aged 34 (or thereabouts), wife of a medical man, had suffered for years with, as I understood, something like angina, for which she had consulted almost all the physicians in Europe, yourself, I think, among the rest. The only relief she ever got was from chloroform inhalations. On one occasion, when suffering from one of her attacks, I assisted her husband in administering three pounds of this fluid, which was continued uninterruptedly till the whole three pounds were expended. On the occasion of the last attack, which she had in this city, she felt the paroxysm coming on about 4.30 P.M.; and, between this hour and 11.30 the same night, she took two drachms of Battley's sedative solution of opium every half-hour, or fourteen drachms of the medicine in seven hours. Between half-past eleven and twelve, she had a convulsion-fit; I saw her a few minutes afterwards, and found her in the following condition: coma perfect; pupil contracted to a pin's point; perfectly cold up to the hips and elbows; face drawn and cadaverous; pulse imperceptible; *respiration two in three minutes.* This state of things is verified by one of my colleagues, who considered the case hopeless, and allowed me to administer what I pleased, saying she had not ten minutes to live. In the meantime, I had prepared the strongest possible infusion of green tea, and shortly after twelve I administered, *per rectum*, half-a-pint, my friend and I watching the result. In twenty-five minutes, the pulse at the wrist became perceptible; the face was less pale; and she *breathed six times in the minute*, instead of twice in three minutes. The same quantity of tea was then given, also by injection; and, to make a long story short, at 4 A.M., four hours after the commencement of the attack, she addressed me by name, saying, 'she could not see me, but that she recognised my voice'; at 8 A.M., she was out of danger. I have since had three cases of poisoning by alcohol in children, aged one year, five years, and six years. In the two latter, the coma was complete, but all were restored to consciousness in an hour or less. Will you, if you have the opportunity, give this remedy a trial in all cases of coma caused by an empoisoned state of the blood?"

It was in consequence of the above letter, that I directed so much pains to be taken in the investigation of this subject by the Committee; and, although far from complete, it will, I trust, be regarded by the profession as no unimportant contribution to the inquiry. I especially regret that ill health, and the consequent resignation of my chair, should have prevented my prosecuting, as was my intention, this matter thoroughly in the clinical wards.

[*To be continued.*]

RIGOR MORTIS IN AN INFANT AT BIRTH.

By J. ASHBURTON THOMPSON, Esq.,
Surgeon-Accoucheur to the Royal Maternity Charity, etc.

In the hope of eliciting the information for which Dr. Grigg asks, I have been tempted to prolong discussion upon a matter which, as it is strictly one for practical observation, should properly not admit of it. I beg leave to make the few remarks following in conclusion of my share in it.

In the first place, I considered that rigor mortis is a condition rarely observed at birth: that opinion has not been controverted. To it I ventured to add a suggestion which, at all events, erred in being too exclusive; viz., that the rarity alone of this state, called rigor mortis, was sufficient to show it to be some other condition; *sc.*, cadaveric spasm. In a second note, I withdrew this exclusive opinion. Cadaveric spasm runs on into rigor mortis, and is distinguishable from it only under exceptional circumstances; and further, Dr. Grigg had proved his case to be one of true rigor mortis, thus invalidating my inference. But I did not withdraw the opinion that the opportunity of thus observing cadaveric rigidity was owing to precedent cadaveric spasm; and, on the one hand, I still see no reason for doing so; while, on the other, I think there is reason to look for some modifying influence to account for the discovery of the former state in these cases. Though I believe my inference to have been fair, yet, since it was drawn from negative evidence alone, it was not a good one; that is to say, if I except my own experience, which, since I made my only observation six years ago, has been extensive, and specially used to elucidate the subject. Nevertheless, I have met with no similar example; and on that ground alone I feel justified in saying at least that the phenomenon is not common. As with Dr. Grigg, so I was not then aware that it was very rarely recorded; hence my observation was imperfectly taken, and I have not again referred to it.

Rigor mortis, then, having been seen at birth in one satisfactorily reported instance at least, and, *pace* Dr. Grigg and Dr. Young, being but rarely noticed, it still remains to be ascertained why it was observed in the few cases recorded; for the question now becomes one of opportunity of observation, or of frequency of occurrence, rather than of possibility. Dr. Young (who assumes that it is a condition common enough on grounds which, as set forth in his note, are quite inadequate) suggests that it is often but feebly marked. This suggestion does not much credit observers, and, for my own part, I know it to have been the case in none of the numerous bodies I have examined; but, in consideration of this suggestion, to take the lowest ground, why was it so strongly marked in these cases? Surely some special influence must be discoverable to account for this. Without asserting that the rigidity observed in all these cases was at the time of birth simply a cadaveric spasm, I revert, in explanation, to my original suggestion. Subject to correction, I venture to opine that convulsion or spasm before death is at once the most efficient cause of early (or well marked) rigor mortis, and the most probable cause to refer to. This appears to me, perhaps not with good reason, to be a less out-of-the-way explanation than hyperfibrination of the maternal blood, to which Dr. Grigg and Dr. Young both refer. But, of course, those who consider the rigor observed to be a common occurrence, will not need to seek an explanation of it anyhow.

With regard to Dr. Young's extract from Taylor, I wish to say that it had not escaped me, but that I have refrained from referring to it because, although the words "was actually still-born" appear to leave no room for doubt, yet, from the context, it is not clear that the child *was* still-born. I think this will be found evident, if the case be read through with care. A charge of inaccuracy is thus apparently supported against the author, than which nothing could be more unjust. The fact is, that the point under his observation was not the point under consideration here, but the occurrence of rigor mortis before the animal heat had been entirely dissipated. For the author's purpose—which is not ours—the case is described with the classical precision for which his work is remarkable. I would further note, that the expression "spasmodic muscular contraction" does not refer to cadaveric spasm, but to vital action, which, under the circumstances, might reasonably be surmised to have caused the rigidity, in preference to rigor mortis, unless the contrary were stated.

The members of the Association are much indebted to Dr. Young for the report of his case. I trust, with Dr. Grigg, that other members will be at the pains of observing the condition of the still-born at birth. I may yet have to cede one other point—its frequency; although I think that will involve an addition to our present knowledge. The matter does not seem to be of practical importance as yet; but any addition to knowledge is useful, and may be valuable.

RIGOR MORTIS IN STILL-BORN INFANTS.

By C. H. WATTS PARKINSON, M.R.C.S., L.S.A.,
Wimborne Minster.

THE communications in the JOURNAL by Dr. Grigg and Mr. J. Ashburton Thompson have brought to my memory some notes of a case of rigor mortis in a still-born infant, which came under my notice four years since. My attention had previously been called to the subject by a case which created a great deal of sensation in the neighbourhood.

A respectable young woman was charged with the wilful murder of her new-born infant; and the medical witnesses (one of them a gentleman of the highest professional standing) gave it as their opinion that the child had been born alive, from the rigor mortis and the fact that some wounds inflicted on the child's person were "gaping"; and thought a *post mortem* examination unnecessary to prove the independent existence of the infant. The woman was committed to the assizes on a charge of "wilful murder", but was acquitted, and convicted of "concealment of birth" only.

The particulars of the case I wish to record are as follows. As I was driving through a village on my professional rounds, I was called to a cottage to see a Mrs. A., as the midwife could not deliver her. I found that the woman had been in strong labour for twenty-four hours; and that, although the pains were frequent and very strong, the child's head had made no progress for some hours. The woman, aged 38, had miscarried once or twice, but had not gone her full time for some years. On examination, I found the head pressing on the outlet of the pelvis, the presentation natural, and a large *caput succedaneum.* There was some slight narrowing anteriorly, and considerable rigidity about the coccyx. I immediately sent home for the instruments (five miles); but, by the time they arrived, managed to deliver the woman. I had considerable difficulty in extricating the child; the funis being twisted twice round the neck, and also round the left arm. The child was dead, and the limbs were partly drawn up in the position they usually occupy in the uterus; the left arm especially was doubled up on the chest. The placenta (partially adherent) was removed without much difficulty, and the woman made comfortable.

I waited some time; and, before I left, examined the child, and, to my surprise, found that the rigidity of the limbs *had increased* (since delivery). The thighs were flexed partially on the abdomen, and the legs on the thighs; the toes were drawn downwards; the arms were doubled up, and the hands firmly clenched; the lower jaw was fixed. I did not notice the other muscles; and, although I endeavoured to straighten the limbs, I have no note as to the result, although my impression is, that the straightened limb gradually in some degree regained its flexed position. I directed the women to notice the continuance of the rigidity, and they informed me that it gradually subsided on the approach of decomposition.

My father (whose parish patient the woman was) came to my assistance with instruments; and he is equally certain with myself, not only that the child was quite dead when born, but also that the rigor mortis *increased after death.*

Unfortunately, like, I fear, too many men in country practice, I have neglected to take notes of my cases; but I distinctly remember two cases during the last five years where there was marked rigidity in still-born children. One was the case of a servant who was taken in labour with her first child, and was moved home (six miles) in a fly on the following day. I was summoned to her late in the evening. She informed me she had not felt the child since labour set in; and the medical man who attended her said the child was dead. She was delivered after a short time of a dead child, and there was marked rigidity of the limbs.

The other case was also that of a primipara to whom I was called, and who had been in labour for forty hours. I found the pelvis contracted, and was compelled to perform craniotomy, and delivered her with the crotchet, though with much difficulty. The limbs of the child were flaccid at birth; but, before I left, my attention was called to it by the attendant on account of its size, and I found that rigor mortis had set in.

Mr. Thompson asks: "Does the rigor mortis occur before or during birth in still-born children?" I answer: I believe it does occur at some time or other, according to the time that elapses after the death of the child, before delivery.

Mr. Thompson "looks upon this *post mortem* rigidity as being not rigor mortis, but a *tetanic spasm*, which, occurring *in articulo mortis*, is prolonged after death"; and moreover says, "Most likely this condition is transient". My experience leads me to differ from this opinion, and to believe that the rigidity is true rigor mortis, and not a tetanic spasm, for the following reasons. If the rigidity were due to spasm, would it not be more especially noticeable about the muscles of the back and abdomen—at any rate, sufficiently to attract the attention of such an acute observer as Mr. Thompson? Instead of this, the limbs in his case as well as in mine were drawn up, and "stiff enough to retain the position they had occupied within the uterus". Moreover, the rigidity in my cases was not only *not* transient, but actually increased, and in one case only set in *after* birth.

As Mr. Thompson remarks, "the conditions under which this *post mortem* rigidity has been observed are not unusual"; and probably, in similar cases, similar rigidity (from whatever cause due) has occurred, so that I do not think he can explain the matter by pronouncing it a rare "physiological phenomenon". I think the true explanation will be found in the fact that there is always considerable danger to the mother in these cases; and that the medical man, having satisfied himself that the child is dead, turns his whole thoughts to the mother; and probably, when he is at liberty again, the child has been removed.

I myself was induced to examine the child in my case by my attention being called to the question whether rigor mortis was a reliable proof of independent existence; and even Mr. Thompson, although he noticed the rigidity, did not have the case sufficiently long under observation to determine the duration of that rigidity, and kept his notes unused for six years. Now that the matter has been ventilated, there will probably be a number of communications from gentlemen who have observed similar conditions, but, from various causes, have not recorded their experience.

THERAPEUTIC MEMORANDA.

BELLADONNA IN THE TREATMENT OF PROFUSE PERSPIRATION.

In corroboration of the estimate of the value of belladonna in checking excessive perspiration in different diseases, pointed out by Dr. Ringer in his *Therapeutics*, and illustrated by Dr. Allan in the JOURNAL for the 21st ult., I beg to record the results of my experience with its alkaloid atropia in this condition. Since July last, in the wards of this institution to which I am especially attached, I have prescribed it to upwards of thirty patients, most of them suffering from phthisis pulmonalis, but a few from other diseases. It was given at bedtime in pill, in doses of one-eightieth of a grain. The results have been very encouraging. In about one-half of the whole number of patients, after from one to four pills, the perspiration was either checked altogether or diminished in amount. In other cases, no decided effect was produced till it had been used for about a week or ten days. In about a third of the cases, no apparent benefit resulted, and the medicine was discontinued. In some of these cases, the perspiration did not recur in a few instances, even after the medicine was stopped; but in others it returned, and was again checked when the pills were resumed. The patients themselves were so convinced of its beneficial influence, that they often asked for their pills when they had been omitted for a time. Caution, however, requires to be used in administering this drug, as in two of my patients distinct toxic effects were produced by the doses mentioned.

ANTHONY BUTLER, M.B., Assistant-Medical Officer,
Town's Hospital, Glasgow.

A NEW AND SIMPLE LOCAL APPLICATION TO PREVENT PITTING OF SMALL-POX.

I WISH to call the attention of the medical profession, through the columns of the JOURNAL, to a mode of treatment which I have found admirably adapted for preventing the pitting of small-pox; and which —though, so far as I know, new—I would strongly recommend for more general and extensive trial, inasmuch as it seems to present many of the qualities desired; viz., exclusion of the air, preserving the parts permanently moist, and lessening of the local irritation; while it is an application gratefully detergent and harmless, permitting the transpiratory function of the skin. I allude to the application of honey two or three times a day by the aid of a camel's hair pencil. The domestic application of honey to the skin of the hands and other exposed surfaces of the body, when rough or cracked from the effects of frost, etc., is more or less known and, when tried, fully appreciated. I think it is not unlikely that, when applied early and repeatedly to a more extensive surface than that usually exposed to the air, and even to the roots of the hair, its primary and somewhat unpleasantly sticky feeling would speedily give place to a sense of general soothing and comfort, from its effect of allaying the irritation which is so troublesome a feature in small-pox. We must not forget, as Dr. Aitken, in his *Science and Practice of Medicine*, very judiciously remarks, "It is evident that the chances of scars can only be diminished by those means which are calculated to allay the general violence of the disease"; and experience will endorse the importance of the same author's opening remarks on dietetic and general treatment, that, "in the first instance, the course to be pursued is for the physician to act on the defensive, and simply protect his patient from certain injurious influences to which he may be exposed;" and of the following: "The chamber in which the patient lies should be cool and freely ventilated." The experience of the small-pox tent in summer time has fully borne out the utility of this. Slop-diet, fruits, lemon-juice, tamarind water, the use of an occasional mild rhubarb or other aperient, will not be lost sight of. I shall be glad to hear of the effect of my suggestion in other hands, and trust that its simplicity will not consign it untried to oblivion. J. WARD, M.D., Grange-over-Sands.

BORACIC ACID AND ITS SALTS AS ANTISEPTICS.

PROFESSOR LISTER has recently made a communication before the Edinburgh Medico-Chirurgical Society on boracic acid as a new antiseptic dressing. The subsequent speakers—Drs. Chiene, Balfour, and Matthews Duncan—spoke highly of its virtues, especially in eczematous and pruriginous affections. I have had no experience of it as a dressing in these diseases; but it has occurred to me that the efficacy of borax in the treatment of aphthous affections may be very probably due to its antiseptic power, acting in the same way as the sulphite of soda recommended by Sir William Jenner, by destroying the fungous growth on which the disease depends. Its action in aphthæ appears to me to very much support its being classed as an antiseptic of some power. I saw quite recently an infant, whose mouth was completely covered with aphthæ, perfectly cured in the course of a few hours by a couple of applications of glycerine of borax. I cannot believe such a result could occur, if the borax acted as a mere topical astringent or sedative (these being the actions with which it is usually credited). It remains to be seen whether the salicylic acid lately brought forward by Professor Kolbe of Leipzig may not have advantages over boracic acid as an antiseptic agent in most cases. It is said to be less irritating than boracic acid. Both have many obvious advantages over carbolic acid, and seem deserving of an extended trial. B. A. RUGG, L.R.C.P.

THE USE OF THE TOW-PESSARY.

IN the JOURNAL of November 14th, an improvement of Dr. Copeman's tow-pessary, for prolapsus and retroversion of the womb, is suggested; viz., that it should be made of cotton-wool. I have in two cases lately used the chloralum-wool sold by the Chloralum Company, which is astringent and deodorises the discharges. I occasionally dip the plug or pessary in a strong solution of tannic acid in glycerine (one drachm to the ounce). Both my patients recovered. One, who suffered from prolapsus, has had a child since; the other, whose retroversion was caused by a fall, and who was constantly having attacks of bilious colic, from the womb pressing on the rectum and interfering with its action, is now in a better state than she has been in for three years. The plug requires to be inserted through a speculum, and introduced once or twice a week, a string being attached to remove it.

T. F. SANGER, M.R.C.S., Surgeon to the
Convalescent Hospital, Seaford.

OBSTETRIC MEMORANDA.

DOUBLE ARM-PRESENTATION.

I WAS sent for about noon on November 1st by a midwife to see a patient in whom she discovered "something wrong". On my arrival, I found that the woman, a mother of five children, had been taken in labour the previous evening. She had not sent for the midwife until ten o'clock in the morning, and she, after examining the patient, sent for me. I found the left arm almost to the shoulder in the vagina, and higher up the right arm as far as the elbow. Seeing that I should have great difficulty in turning, I sent for my friend Mr. Lawton to help me. We both tried, but found everything too much impacted for us to turn. Mr. Lawton then gave chloroform, and, when she was completely under its influence, I succeeded, though with great difficulty, in delivering. The interest of the case lies, not so much in the delivery, the difficulty of which was due to the long time which had elapsed between the commencement of labour and when I saw the patient, as in the rarity of the presentation. In no book to which I have access is a double arm-presentation recorded. Two feet and two hands are described by Churchill and Leishman; but no one appears to have recorded the peculiar presentation it has been my fortune to meet with.

P. Q. KARKEEK, M.R.C.S.Eng., Torquay.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. MARY'S HOSPITAL.

CASE OF PELVIC HÆMATOCELE: WITH CLINICAL REMARKS.

(Under the care of Dr. ALFRED MEADOWS.)

[We have to thank Mr. Samuel J. Thomson, the Resident Obstetric Assistant, for these notes.]

A. W., aged 26, was admitted under the care of Dr. Meadows on October 23rd, 1874. Her family history was good, and she herself had enjoyed good health up to the time of her present illness. She was married at 17, but had had no children. Menstruation began at the age of 15½, and had been quite regular up to two months before her admission into hospital; but it had always been scanty, and accompanied by pain in the right ovarian region. Two months before admission—*i.e.*, in August—the catamenia did not appear, though the pain in the right ovarian region came on as usual. After this, the patient had pains of a sharp darting character in this situation every day; they came on at irregular intervals, and were not constant. At the succeeding period, the pain was much worse, and spread from the right side across the lower part of the abdomen; it became a *constant* dragging pain, and she was quite unable to walk on account of it. A few days before her admission, the patient was suddenly seized with a violent paroxysm of pain of a bearing-down forcing character; it was so severe, that she was doubled up, and could not bear to straighten the abdominal muscles. She felt also very sick and faint. After this attack, she was much worse; she suffered constantly from severe bearing-down pain, and the lower part of her abdomen became very tender.

On her examination by Dr. Meadows, the following note was made. "The cervix uteri is pushed forwards close to the symphysis pubis by a tense, elastic, and exceedingly tender swelling, which fills and distends Douglas's pouch, and occupies the whole posterior part of the pelvis. In the centre of the soft swelling, projecting in front of the rectum, there is a prominence which is softer and more elastic than the rest—feels, in fact, as if it was about to burst." No swelling could be felt above the pelvic brim. Her pulse was 100, and temperature 100 degs. She was ordered to keep very quiet in bed, and to be kept slightly under the influence of opium by small and repeated doses.

In remarking on the diagnosis of this case, Dr. Meadows called attention to the following points: first, that an elastic swelling existed in the retro-uterine pouch, displacing the uterus forwards; secondly, that the clinical history pointed to the rapid and even sudden formation of this tumour, accompanied by faintness and severe pain; it was, therefore, a "pelvic" or "periuterine hæmatocele"; and, thirdly, that this hæmatocele was probably due to the rupture of the cyst of an extra-uterine pregnancy, for the following reasons; viz., that two catamenial periods had passed without menstruation; that the breasts were somewhat enlarged, the areolæ distinct, and the follicles prominent; that the pain in the right side had been constant and severe; and that this pain had suddenly become aggravated and more diffused, and had acquired a bearing-down character. The ovum had probably been arrested either in the Fallopian tube, or between its fimbriated extremity and the corresponding ovary.

A week after the patient's admission, as the pain continued to be severe and still of the same "forcing character", Dr. Meadows decided to puncture the retro-uterine swelling. This he did *per rectum* with a curved trocar, and drew off between three and four ounces of thick bloody fluid. The cannula then became plugged with coagulum; but during the day about an equal quantity passed from the bowel, and the fluid continued to drain away slowly during the next two days, when it finally ceased. The patient expressed herself greatly relieved directly after the operation; the pain was immediately and decidedly diminished. There was also a great decrease in the size of the tumour, and the uterus returned nearly to its normal position in the pelvis.

The operation was performed on October 30th; and by the end of November, the retro-uterine induration, which had been left after the tapping, had entirely disappeared; the uterus was in its normal position, and was freely movable without pain. The patient was accordingly discharged cured.

In reference to the question of the treatment of pelvic hæmatocele, Dr. Meadows advocated tapping in preference to the expectant method, for the following reasons: first, that the operation itself, if properly performed with all needful precautions, is not in any way dangerous; secondly, that the relief afforded by it is immediate and great; thirdly, that by it the cure is immensely expedited, since an amount of fluid may be drawn off in a few minutes which would require many weeks, and even months, for its absorption; and lastly, that, in a large proportion of the recorded cases of cure in which the amount of blood effused has been at all extensive, the escape of the fluid has been effected either spontaneously by the bursting of the hæmatocele, or by operative interference; while, on the contrary, the great majority of cases that have ended fatally have either not ruptured or have not been operated on, and consequently the fluid has not escaped.

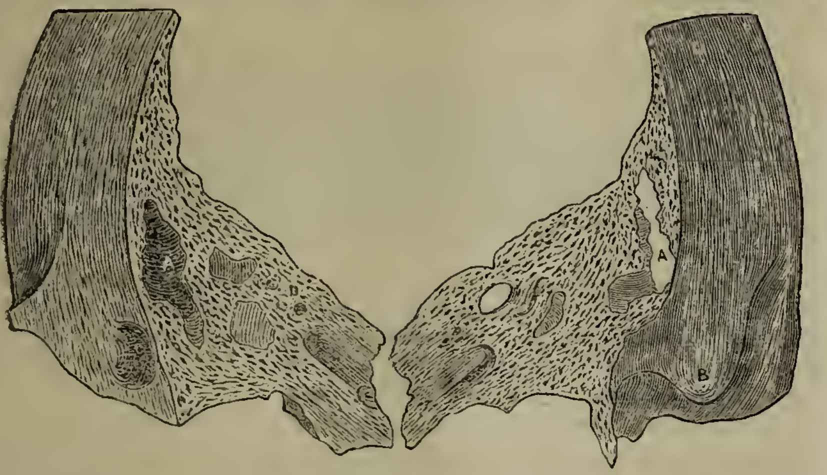
A CASE OF ABSCESS OF THE BRAIN RESULTING FROM CHRONIC SUPPURATION OF THE MIDDLE EAR.

By GEORGE FIELD, Esq., Aural Surgeon to the Hospital.

THE following interesting case was admitted under the care of Dr. Handfield Jones, to whom I am indebted for his notes of the case while in hospital. The remarks on the *post mortem* examination, etc., are my own.

Charles Talbot, aged 20, groom, was admitted July 13th, 1874. His health had been generally good, except that he had been deaf in the left ear since he was six years old. Some discharge occurred occasionally. He was taken ill thirteen days ago with pain in the left side of the head from the mastoid region to the temple. He became unconscious and delirious on the morning of admission. The pain had been very severe, and discharge had occurred from the ear. When admitted, he was in a state of morose stupor, lying on the left side, refusing to move, and struggled violently when he was raised up to have his ear examined. The skin at the mastoid region was perforated by several small openings, and pus had escaped from them. A free incision was made in this part, which was distinctly tender; and a drachm of compound jalap powder was ordered, which acted well. He was ordered also four grains of iodide of potassium four times a day. On the 14th, he seemed better; he was more conscious, and showed his tongue a little when asked. The urine had a specific gravity of 1030, and contained a notable amount of albumen, and also of sugar, the albumen having been separated first. Pulse 87; temperature 102.2. On the 16th, he was more sensible, but very dull and listless in manner; and he had no pain. Pulse 76. There was a copious eruption of herpes round the mouth. At 2 P.M., he said he had pain in the head and felt no better. There was purulent discharge from the meatus and in the wound behind the ear; no dead bone was felt. On the 17th, he was very much better, was quiet at night, and fed himself during the day. He slept very well. Temperature 98.7; pulse 72. He answered questions very slowly. When pressed to say where he had pain, he put his hand to his forehead. He had, since the 16th, a lotion of 6 grains of sulphate of zinc, 2 grains of carbolic acid, and 15 minims of liquor morphiæ, in 1½ ounces of water, as an injection into the ear. A pint-and-a-half of urine was drawn off by the catheter on the 16th. The compound jalap powder was repeated. On the 20th, he was much better. He was much more conscious; heard a watch with the right ear, but not with the left even when touching the ear. Temperature 98.24; pulse 80. On the 23rd, he was doing fairly well. There was free purulent discharge from the wound behind the left ear. Temperature 99; pulse 86. The mastoid region was tender. He was more lively this morning, and much less deaf. The bowels were open. On the 27th, he felt, he said, very much better. There was a very copious discharge oozing from small openings, very offensive. There were sinuses leading for four or five inches downwards and backwards, but no dead bone could be felt. He was ordered to have three times a day 4 grains of iodide of potassium with a drachm of tincture of cinchona in an ounce of decoction of cinchona. He took nourishment well. On the 29th, he uttered a single shriek every hour or so. After this, he did not improve. The pain in the head became more severe; he lapsed into a stupid condition, finally becoming comatose; and died on August 4th.

POST MORTEM EXAMINATION.—Behind the left ear, the skin was dusky and infiltrated; and pus was escaping through an opening which had been made some days previously by the house-surgeon. A probe introduced showed the mastoid process to be denuded of periosteum, and roughened. On opening the skull, matter escaped which had been collecting in the form of a large abscess above the dura mater in the right parietal region. The pus, which was very offensive, somewhat resembled in colour beef-tea. On removing the dura mater, which was red and thickened, the right hemisphere exhibited evident signs of compression from the pent-up pus. The dura mater had been extensively separated from the skull from the left mastoid region to the seat of the great collection. This condition had, in all probability, resulted from the patient lying on the non-affected side of the head for a few days before death, the pus thus gravitating as he lay. On removing the encephalon, the left lobe of the cerebellum was found to be completely disorganised, and in direct communication with the primary abscess, situated in the cells of the left mastoid process. The dura mater itself was diffluent in that region. On making a section of the temporal bone, the mastoid process showed itself to be the birthplace of an extensive collection of pus, which had made its way through the thin wall of the groove of the lateral sinus, without opening into the venous channel itself. The thoracic and abdominal viscera were healthy.



A A. Cavity formed by the abscess. On the right side of the drawing this cavity has, to a certain extent, penetrated the bone and entered the cranium. The section has been made exactly through the centre of the pyogenic cavity. B. The mastoid process. C. Meatus auditorius externus. D. Semicircular canal, though the edges of which the section runs.

REMARKS.—About a third of the cases of cerebral abscess arise from chronic suppurative processes in the middle ear (Reynolds's *System of Medicine*, vol. ii, p. 544). Although the lateral sinus itself remained uninjured, this case points out clearly how easily inflammation extends to that sinus and to the jugular vein, accounting for the numerous cases that die from lobular pneumonia with gangrene of the lung, in consequence of chronic disease of the ear of the same side (Sir W. Gull, Cases of Phlebitis with Pneumonia and Pleurisy, from Chronic Disease of the Ear; ASSOCIATION MEDICAL JOURNAL, April 13th, 1855). Also, as Toynbee first pointed out, "affections of the external meatus and mastoid cells produce disease in the lateral sinus and cerebellum"; and, lastly, to use the words of the same author, "the insidious progress of cases in which matter in the cavities of the ear injures the petrous bone and the brain, cannot be too often or too forcibly impressed upon the mind of the profession" (*Med. Times and Gazette*, March 16, 1861).

ROYAL INFIRMARY, EDINBURGH.

PARALYSIS AND NUMBNESS OF THE LOWER, AND TO A LESS EXTENT OF THE UPPER, EXTREMITIES.

(Under the care of Dr. GRAINGER STEWART.)

ROBERT S., aged 45, a blacksmith, born in Glasgow, resident in Edinburgh, was admitted to Ward VII on August 17th, 1874, complaining of inability to walk, with numbness and pains in the legs and arms. He had been ill three weeks.

History.—The patient stated that he had always been healthy, although occasionally somewhat intemperate. In the beginning of August, he had to sleep for some nights in a damp bed, and had a little cold and diarrhœa in consequence, but had no sore-throat, nor other symptoms of diphtheria. On August 10th, he went to his work as usual, but found that he could not wield his hammer so well as he was accustomed to do; not that he had any loss of power, for his strength was as good as usual, but that he could not hit accurately or control his movements. His legs also shook under him. He left his work, and walked about for the rest of the day. During the following days, he steadily lost power in his limbs, and by the 16th could scarcely walk. During this period also, his legs and arms became numb. On the 17th, he was admitted to the Royal Infirmary.

On admission, he was a well-built man, 5 feet 7 inches high, of normal temperature, and healthy in all respects excepting the paralysis and the numbness.

He had a feeling of numbness and cold in the hands and feet, but the parts were really warm. The sensibility to various kinds of impression was somewhat increased in the parts which felt numb. The special senses were normal. The muscular sense also was unaffected, as were also the electro-sensibility and contractility. The reflex action induced by tickling the soles was excessive. He could move the hands and arms in all directions, and could use them with some force. When lying in bed, he could kick out pretty vigorously; but, on rising, had the greatest difficulty in walking, or even standing. When at rest, he observed that the muscles of the limbs twitched occasionally. There was no defect in their bulk, nor any fibrillary twitching. He knew when he required to pass urine, and could expel it in a good stream. There was no deficiency of the action of the sphincter of the bladder. The bowels were constipated. There was no tendency to sloughing of the skin, nor any tenderness on percussion over the spine. Application of the hot sponge over the spine elicited no result. There were no mental symptoms. Sleep was disturbed.

He was ordered a few doses of ergot of rye, twenty minims of the liquid extract. This was followed by increase of the symptoms, particularly of the want of power in the limbs. After four doses, this medicine was discontinued, and strychnia was substituted. It was given in the form of the liquor in 7½ minim doses three, and afterwards four, times a day. In a day or two, some improvement was apparent, and gradually the power returned and the numbness disappeared. Towards the end of October, the patient had so far recovered as to be able to resume his work; and he has since several times presented himself at the hospital almost quite well.

CORK OPHTHALMIC AND AURAL HOSPITAL.

WELL MARKED CASE OF "ANÆMIC EXOPHTHALMIC GOÎTRE" TREATED BY SETON THROUGH THE GOÎTRE AND DIGITALIS.

By H. MACNAUGHTON JONES, M.D., M.Ch., F.R.C.S.I.&Ed., Surgeon to the Hospital.

ELIZABETH CONNOR, aged 27, a machine-worker, was admitted to hospital on August 21st, 1872. She had had constant work at a foot-machine for seven years. She came under my observation in August 1872, with the following symptoms. The eyes were prominent, protruding from the orbits. There was slight inflammation of the conjunctivæ, with a few small marginal ulcers of the corneæ; the pupils were partly dilated; there was well marked retraction of the upper lids, as noticed by Von Gräfe; apparently the lids only closed on voluntary effort; the right eye was the more prominent. She complained occasionally of darting pain in the left eye. On examination with the ophthalmoscope, there was general dilatation of all the retinal veins, and well marked pulsation in the retinal arteries of both eyes, with some atrophic spots here and there, but more particularly the left eye. There was a violent action of the heart, with an increased area of dulness; the heart-sounds being heard to the right side and over all the superior portion of the chest. I could detect no *bruit*. She was certain that the eyes were more prominent in the morning. Distinct pulsation of both carotids was visible at a considerable distance from the patient. Pulse 110. The girl was wretchedly unhealthy-looking, anæmic, thin, and quite hysterical, bursting into tears occasionally. The catamenia had not been regular for a considerable time, and ceased altogether some months since. She was greatly debilitated, complaining of pains in the back, and loss of sleep from excessive and most distressing palpitation, particularly complaining of the violent beatings of her heart, which were most annoying. The neck was greatly enlarged by a goître measuring 6½ inches from side to side and 3½ deep, involving the entire thyroid gland. This enlargement appeared, she said, before the protrusion of the eyeballs (five months previously); but she paid no particular attention to it until the eye became prominent, when she sought some relief, and was put under treatment for the goître. The right lobe of the thyroid gland was most enlarged. Her vision with both eyes was equal to $\frac{20}{30}$. Altogether, this patient presented a most pitiable appearance. She was obliged to relinquish her work at the machine, and was in consequence badly nourished, and had for some time been supported by the kindness of a charitable association in this city. The treatment consisted in the administration of digitalis combined with steel, the former being given until the heart-beats were reduced to 50 in the minute; and then quinine and iron with bromide of potassium alternated.

I passed a long seton through the goître; and, on its suppuration, I pushed in small caustic darts of chloride of zinc, as formerly advised by Dr. Morell Mackenzie. She remained in hospital until Christmas 1872, when she was discharged much improved, still wearing the seton and continuing alternately her medicine. The goître was greatly reduced; the eyes were not nearly so prominent; her general appearance, health, and spirits, were altogether widely different from what they were at the time of her admission. She continued under treatment during the whole of 1873.

I saw this patient on November 11th. She now is steadily employed. The eyes are much in the same condition as when she left the hospital. Her general health is much improved; but there is a marked diminution in the goître. She does not suffer from the distressing palpitations, nor has she the morbid pulsations in the carotids. The uterine functions are restored.

REVIEWS AND NOTICES.

Transactions of the Clinical Society of London. Vol. vii. London: Longmans and Co. 1874.

The present volume contains the opening address of the President, Mr. Prescott Hewett, on Pyæmia occurring in Private Practice, with a full report of the interesting discussion by which it was followed, and thirty-seven contributions, or clinical reports, of cases; the whole comprising the proceedings of the Clinical Society during its seventh session, from October 1873, to May 1874. A considerable portion of the volume, viz., twenty-seven pages, is occupied by the discussion on the President's address; the thirty-seven contributions being distributed through the remaining part, at an average of five pages each. This sufficiently shows that the contributors of cases, as a rule, have not been unmindful of one valuable quality of clinical reports—conciseness. A critical review of the facts embodied in these various contributions is out of the question in the short space that can be spared for this notice; but this is the less a matter of regret, as abstracts of the greater number of the cases described and commented upon have already appeared in the pages of the Journal in our reports of the Society's meetings. One thing is clear in perusing this volume, that the Clinical Society is doing most useful and meritorious work. The contributions are, for the most part, essentially practical, and such as must interest all who are occupied in clinical diagnosis and the successful application of medical and surgical knowledge in the treatment of disease. In again going through the discussion on pyæmia, notwithstanding the diversity of experience as to the frequency of its occurrence, brought forward in the course of the debate, notwithstanding the want of agreement among the speakers in their ideas respecting the original and exciting causes of pyæmia, the nature of the poison producing the pyæmic condition, and its modes of manifestation, a strong impression remains on the mind of the real and solid clinical value of the interchange of observations at the Society's meetings on this important subject. No surgeon can study this discussion without recognising the practical benefit conferred by Mr. Prescott Hewett, in his capacity as President of the Clinical Society, on practitioners in general in having thus introduced a comparison between the prevalence of pyæmia in private and in hospital practice, or without feeling himself better prepared for accurate observation of the symptoms and peculiar characters of cases of pyæmia which may unhappily occur in the course of his own practice in future. The discussion may well be read and considered again and again.

The volume is well edited and printed, and the illustrations sufficiently satisfactory. The illustrations to Sir William Gull's paper, No. 5, on "Anorexia Nervosa", exhibiting the contrast between the aspects of three patients while the diseased condition was in progress and after recovery, are particularly expressive. A well arranged index and table of contents facilitate reference to the various subjects comprised in this collection of Transactions.

NOTES ON BOOKS.

St. Bartholomew's Hospital Reports (vol. x, Smith, Elder, and Co.) appear this year in a new form. This first volume of the new series (tenth of the old) is a volume of remarkable value; it contains not fewer than thirty-two papers, including one by Sir James Paget on Diseases of the Mammary Areola preceding Cancer of the Mammary Gland. All the papers are good, and many of them remarkably so. The volume is noticeable for its admirable mechanical execution and cheapness. As a volume of which the publishing price to subscribers is six shillings, and to non-subscribers eight shillings and sixpence, it is the most remarkable which has yet issued from the English medical press. Scientifically and commercially, it is certainly a remarkable book, and inaugurates honourably the new series of *St. Bartholomew's Hospital Reports;* but it sets a standard which it will be hard to maintain. The one article in the volume which disappoints us most is that from which most of human interest might have been expected. It is the elaborate biographical sketch of a most esteemed surgeon, Mr. Wormald. We have read it carefully through, and draw from it the rather disappointing moral, that a man of good ability, taught by the most eminent masters, and enjoying life-long opportunities of the most splendid character, may find an eulogist who is content, in a great number of pages at the head of a scientific volume, with a biographical notice from which one can gather nothing. It is surely not the fact, that Mr. Wormald made no single contribution to the advancement of the art and science of surgery; but we are forced to that conclusion by this empty panegyric.

Flückiger's *Pharmacographia* (Macmillan) is an almost faultless monograph, of mainly pharmaceutical, and not at all of a therapeutical character, giving a trustworthy account of the botanical origin, history, chemical composition, source, and commercial relations, of the principal drugs. It is the joint production of Flückiger and Daniel Hanbury. It abounds in research of every kind, and is a labour of love of two eminent, conscientious, and able men. It will be a classical work in its department of study.

Dr. Aitken's *Outlines of the Science and Practice of Medicine* (C. Griffin and Co.) is, we believe, destined to as great a popularity as the larger work of the same author. It is well digested, clear, well written, and the work of a man who is conversant with every detail of his subject, and a thorough master of the art of teaching.

Mr. Nayler's *Diseases of the Skin* (Smith, Elder, and Co.) has reached a second edition; and this is in itself a tribute to its merits, seeing the severe competition which exists in this department of medicine (or surgery?). The volume is enriched by a good deal of new matter, partly from the pen of the late Mr. Startin (with whom Mr. Nayler had been much associated in practice), and is a very honest and sound piece of workmanship, of great clinical value. The plates are very well executed; but the subjects are, we think, very ill chosen.

Dr. Lyttleton Winslow's *Manual of Lunacy* (Smith, Elder, and Co.) has the advantage of an introduction by his father, Dr. Forbes Winslow, which guarantees the accuracy of the book, while it explains its object. The busy practitioner may easily ascertain here what he may do, and what he may not do, in reference to the detention and confinement of persons alleged to be mentally unsound and fit subjects for surveillance. The topics treated include the mode of dealing with private patients and single patients confined in unlicensed private houses; pauper lunatics; commission in lunacy and chancery lunatics; liabilities incurred by those concerned in the confinement of persons alleged to be insane; lunacy in Scotland, in Ireland, in France, Belgium, Germany, etc.; with definitions and explanations of the terms descriptive of the types of insanity recognised in the courts of law. The book is a most useful compendium of knowledge on a subject on which most medical men are called upon occasionally to act promptly, where the want of such a book of reference may lead, as it often has led, to serious trouble.

Dr. Budgett has apparently something to say concerning *The Hygiene of Schools, or Education mentally and physically considered* (London, H. K. Lewis); but we find it very difficult to extract any useful connected conclusions from the random sketches which are here roughly and loosely put together.

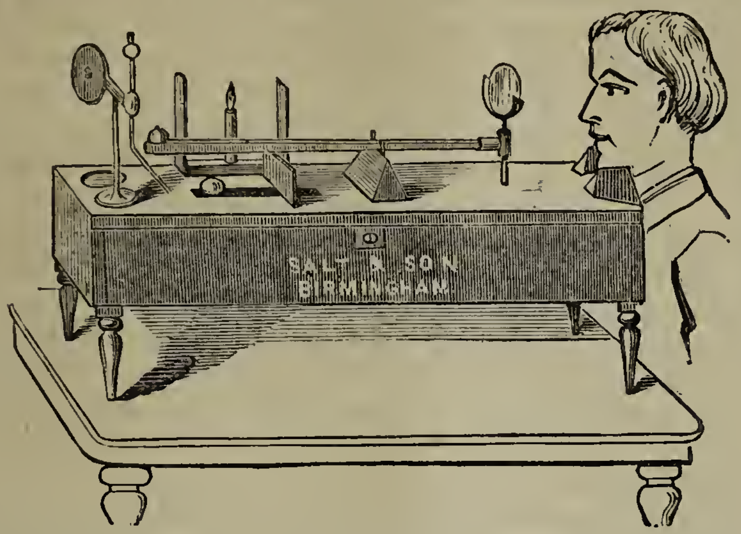
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW DEMONSTRATING OPHTHALMOSCOPE.

By Priestley Smith, M.R.C.S.Eng., Acting Ophthalmic Surgeon to the Queen's Hospital, Birmingham.

The essential difference between hand-ophthalmoscopes and demonstrating ophthalmoscopes is, that whilst in the former the parts of the instruments are maintained in their respective positions by the unaided hand of the observer, they are capable in the latter of being fixed mechanically in any position given to them by the demonstrator, so as to admit of their being used without further adjustment by any person, whether trained or not, in the examination of the fundus oculi. Wishing to procure for my own use some contrivance which should fulfil this requirement well, and at small cost, I devised, some months ago, the instrument figured in the woodcut. Finding, after repeated trials, that it works well and easily, and believing it to possess some advantages besides that of cheapness, I venture to bring it under the notice of the profession.

The body of the instrument consists of an oblong, black wooden box, two feet four inches in length, raised upon four legs to such a height that, when standing upon an ordinary table, it supports the chin of the patient. The legs, as well as the various parts which stand upon the box, can be removed and packed inside it, when not in use, so as to render the instrument portable. A perforated glass mirror of twelve inches focus, on a metal support, which permits its steady adjustment in any position, stands at one end of the instrument; at the other end are two chin-supports, which steady the patient's head. The object-lens, two inches in diameter and of four-inch focus, is held in a spring clip on the end of a lever. By means of this lever, the observer has complete command over the object-lens, causing it to approach or retire from the patient's eye, or to move upwards, downwards, or to either side, as may be necessary. The lever, and with it the object-lens, is retained in the desired position by means of an adjustable support beneath the lever, midway between the fulcrum and the observer. The height of the lens necessary for each patient is obtained approximately by raising or lowering the clip in the end of the lever. The support before mentioned rises or falls on a little wedge, and acts as a fine adjustment for the position of the lens. Light is supplied by a small candle near to the mirror. Two metal shades shield both patient and observer from all direct light. One of these shades moves on a pivot, so as to cut off the light from the mirror when desired. By this means the patient's eye can be protected from unnecessary illumination during the time occupied by the observers in changing places. A white ball on a wire, which travels to either side of the mirror, is used to direct the patient's eye. When the unilluminated eye is fixed on this, the disc of the fellow eye places itself in full view.



The instrument is made by Messrs. Salt and Son, instrument-makers of Birmingham, who have spent much time and pains in perfecting its details.

SELECTIONS FROM JOURNALS.

MEDICINE.

Peripleuritic Abscess.—Inflammation and suppuration in the connective tissue between the costal pleura and the ribs has been described by Wunderlich. In the *Deutsches Archiv für Klinische Medicin*, Professor Bartels gives an account of four cases under his observation, and makes some practical remarks on the diagnosis between primary peripleuritic abscesses and empyema. Subpleural abscesses have little tendency to burst into the pleural sac; they are frequently implicated with diffuse nephritis, and, what is more intelligible, frequently also with pericarditis. In both subpleural abscess and empyema, the diseased side of the chest is enlarged, acts imperfectly or not at all in respiration, gives a dull or quite empty sound on percussion; over the region of dulness, the vocal fremitus and vesicular breathing are lost. In empyema, however, the ribs in the whole region of dulness are equally pressed outwards, and all the corresponding intercostal spaces are distended; while, in peripleuritic abscess, the muscles in some intercostal spaces are more rapidly infiltrated with pus than others, so that the spaces gape more widely and the ribs project, while other (upper) ribs are pressed more closely together than those of the sound side. This does not occur when an empyema has perforated the costal pleura. In subpleural abscess, the extent of dulness is not affected by the position of the patient or by the ascent or descent of the diaphragm. A similar condition to that of subpleural abscess may occur when a pleuritic exudation is encapsuled between the upper and lower lobes of the lung; here, however, the lower lobe is compressed, and does not take part in respiration. In subpleural abscess, the neighbouring organs are not pressed on; in one case only the heart was pressed outwards by the exudation in the mediastinum. In all the cases, fluctuation was detected in one of the intercostal spaces, with tension diminished during inspiration, and increased during expiration. In empyema, these symptoms are only observed when the costal pleura has been perforated. Professor Bartels says that the pus of a peripleuritic abscess is of higher specific gravity (1042) than that of empyema (1028 to 1032). The prognosis is unfavourable. Of eight cases described, four have died (two of pyæmia, one of nephritis, one of pericarditis). In two cases, recovery was so far imperfect, that there was marked contraction of the affected side of the chest. In the treatment, it is necessary to give exit to the pus as soon and as completely as possible, in order to prevent the extension of purulent infiltration. Puncture is insufficient and even dangerous; the pus must be let out by a broad incision. In some cases, further incisions are necessary, and drainage is useful. If the pus be of offensive smell, Dr. Bartels recommends the washing out of the abscess with a mixture of equal parts of fresh filtered oxgall and water.—*Wiener Medizinische Wochenschrift*, No. 21, 1874.

THERAPEUTICS.

New Method of administering Raw Meat.—Raw meat is a very repulsive medicinal agent, under what form soever it be given to invalids. The solid form is by no means advantageous, and its administration is impracticable with young children and convalescents. By M. Yvon's process, a product is obtained which may be administered in either a solid or liquid form. He takes of raw beefsteak, 250 parts; blanched sweet almonds, 75 parts; bitter almonds, 5 parts; white sugar, 80 parts. The almonds are first blanched, and then pounded up with the meat and sugar in a marble mortar, so as to obtain a homogeneous paste. To obtain a nice-looking product, and to retain at the same time the few fibres which may have escaped the action of the pestle, this paste may be reduced to pulp. When it has undergone this process, it is of a pale pink colour, and has a very agreeable flavour, not in the least like raw meat. It will keep without change for some time, even in summer, if it be placed in a cool dry place. If it be desired to give it in a liquid form, it will be enough to dilute a certain quantity of it with water, according to the degree of fluidity required. The emulsion may also be prepared at once, as follows: Raw meat, 50 parts; blanched sweet almonds, 15 parts; bitter almonds, 1 part; white sugar, 16 parts, are all pounded in a mortar as in the first formula; the quantity of water needed is added by degrees; and all is then passed through a sieve. Whichever mode of preparation be adopted, the emulsion will keep for at least four-and-twenty hours; and when it separates, at the end of that time, a slight shaking will re-establish the suspension. Some yolks of eggs will make this emulsion more nourishing. (*Journal des Connaissances Médicales*). M. Taillier, the head apothecary at the asylum of Quatre-Mares-Saint-Jon, employs the following preparation for the insane patients to whom it is necessary to administer raw meat (*Répertoire de Pharmacie*): Grated raw meat, 100 parts; powdered sugar, 40 parts; wine, 20 parts; tincture of cinnamon, 3 parts. The sugar is incorporated with the raw meat in a marble mortar, and then the wine and tincture are added. A mixture like marmalade is obtained, having an agreeable flavour, and possessing all the requisites of a tonic and revivifying diet. This preparation has many recommendations, though it does not possess all the advantages of the one recommended by M. Yvon.

OBSTETRICS.

Treatment of Uterine Tumours by Subcutaneous Injection of Ergotin.—Hildebrandt, in *Beiträge zur Gynäkologie und Geburtskunde*, vol. iii, relates a number of observations on the treatment of fibroma and myoma of the uterus by the subcutaneous injection of ergotin. He believes that the most favourable conditions for this treatment are the following: when the consistence of the tumour is that of an elastic fibroma rich in muscular tissue; when its seat is submucous; when the walls of the uterus are healthy and capable of contraction, neither thinned, nor rendered rigid by exudation; and when there has been no inflammation in the vicinity.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 19TH, 1874.

THE MEETING IN SCOTLAND, 1875.

THE line which heads the programme of the JOURNAL, published in another column, and which announces that the forty-third annual meeting of the British Medical Association will be held in Edinburgh in the first week of August 1875, under the presidency of Sir Robert Christison, intimates perhaps the most interesting and important incident in the as yet unwritten history of our Association for the coming year. The addresses are to be given by Dr. Warburton Begbie, and Professors Spence and Rutherford. The earliest list of the Committee of Reception included such names as Christison, W. H. Lowe, J. D. Gillespie, R. D. Haldane, J. Matthews Duncan, Douglas Maclagan, G. W. Balfour, J. H. Balfour, J. Lister, Alex. Keiller, M. Watson, Grainger Stewart, J. Bell, Sidey, Laycock, Chiene, Underhill, J. W. Begbie, Angus Macdonald, Bishop, J. Brown, Peddie, Thomas Annandale, W. Menzies, Thomas Keith, J. Batty Tuke, Cadell, Affleck, Beatson. John Duncan, W. Cumming, J. Cumming, J. Young, Alex. Simpson, J. Brackenridge, Carmichael, Argyll Robertson, Benjamin Bell, Ziegler, Ritchie, John Playfair, James Dunsmure, jun., Andrew Smart, R. P. Ritchie, Andrew, Burn, J. G. M'Kendrick, etc. This list soon swelled to nearly two hundred of the leading practitioners of Edinburgh and the surrounding counties. The programme of the week of meeting will, it is already plain, be well filled. The Sections will probably include the full working series: Medicine, Surgery, Obstetrics, Physiology, and Psychology. There will be no lack of eminent men for the officers of the Sections, and the time at disposal will allow a very considerable amount of scientific work to be done. As we pointed out in respect to the Norwich meeting, the actual amount of work done in the week by the aid of the subdivision into Sections, and the four sittings of each for four hours, is not less than that done at our great London Society, the Royal Medical and Chirurgical, in twelve months. Our audiences are, of course, much larger; and the general run of the papers read is of a high standard. This standard has been steadily rising of late years, and has no doubt been favourably influenced by the increasing popularity of these annual gatherings, and the great number of medical men whom they draw together, as well as by the beneficial operation of the Committees of reference in each Section, who have power to give precedence to papers which call for it by reason of their intrinsic importance and interest.

We shall subsequently have the opportunity of referring to the proposed details of business. Meanwhile, it seems probable that each day will be amply filled, and that the evening receptions and the final excursions will be such as to afford the most agreeable combination of pleasure with work, leaving to each member the faculty of apportioning his share of the *dulce* and the *utile.*

The British Medical Association is less well known in Scotland, perhaps, than in any other part of Great Britain. We have, it is true, some hundred members in Scotland who are regular readers of the JOURNAL; and many of the most eminent Scotch physicians and surgeons are occasional contributors to our pages. We have quite lately welcomed at our meetings and have done honour to Lister, Matthews Duncan, Laycock, Buchanan, Macleod, Rutherford, Gairdner, *cum multis aliis.* We have branches which have spontaneously sprung up in the Border Counties, in Aberdeen, and in the Northern Counties. But the general body of North Britons have had rare points of personal contact with us, and our objects and work are not so well known in many parts of Scotland as they are throughout the length and breadth of England, Wales, and Ireland. A few words, therefore, will not be out of place to some of those of our professional brethren who will see these pages, and who may not be well acquainted with the objects and the doings of the British Medical Association.

This great Association, we may say briefly, numbers now considerably more than five thousand members. It was founded in 1832 by Sir C. Hastings of Worcester, at a meeting of some fifty medical members, in the board-room of the Worcester Infirmary, in the hope, as he said, "that the new Association would exercise no inconsiderable influence on the progress of medical science, feeling" (as he did) "the disadvantage under which the prosecutors of medicine resident in English provincial towns have laboured, in consequence of the want of any system of co-operation by which their separate exertions for the promotion of our knowledge of the healing art may be so united as to render them more influential and more extensively useful". He enumerated the objects of the Association as being:

"1. The collection of useful information, whether speculative or practical, through original essays, or reports of provincial hospitals, infirmaries, or dispensaries, or of private practice.

"2. Increase of knowledge of the medical topography of England through statistical, meteorological, geological, and botanical inquiries.

"3. Investigation of the modifications of endemic and epidemic diseases in different stations and at various periods, so as to trace, as far as the present imperfect state of the art will permit, their connections with peculiarities of soil or climate, or with the localities, habits, and occupations of the people.

"4. Advancement of medico-legal science, through succinct reports of whatever cases may occur in provincial courts of judicature.

"5. Maintenance of the honour and respectability of the profession generally in the provinces, by promoting friendly intercourse and free communication of its members, and by establishing among them the harmony and good feeling which ought ever to characterise a liberal profession."

If we look back to the achievements of the great professional brotherhood thus founded, we shall have reason to be more than gratified. At the close of the first year of its existence, the Association numbered 310; last year, it numbered a little over 5000 members; at this moment, its numbers approach 6000—all good men and true, elected only after nomination by not less than three well-known members of the profession. Among the long list of subjects which have engaged the attention of the Association as a whole are the following:

1. The achievement of medical reform, which makes the

legally qualified practitioner free to practise everywhere in the three kingdoms, and attains, in a great measure, but not yet wholly, the original programme of its founders—"reciprocity of practice"—but without, as yet, "an uniform minimum qualification".

2. The reform of the Poor-law medical system, which has put an end to the old and disgraceful system of "tendering" for Poor-law appointments—a sort of Dutch auction—which had led to the appointment, at miserable stipends, of persons holding no legal qualification, of whom there were, when this Association was called into existence, not fewer than 238 individuals.

3. The amelioration of the position of the Army and Navy medical services, which followed directly the appointment, on the petition of this Association, of the Royal Commission of 1855 on the Rank and Remuneration of Medical Officers of the Army and Navy—a commission of which Dr. Markham, the previous editor of this JOURNAL, was a member.

4. The Public Health Act of 1872, which was founded on the labours of the Royal Sanitary Commission, appointed at the instance of the Joint State Medicine Committee of the British Medical and Social Science Associations, and mainly through the labours of our distinguished associates on that Committee—Rumsey of Cheltenham, Stokes of Dublin, Acland of Oxford, Patrick Stewart of London, George Hastings, and Gairdner of Glasgow.

The energies of the State Medicine Qualifications Committee, the Parliamentary Committee, and the Public Medicine Committee, are still directed towards the promotion of yet further improvements in these subjects, which concern equally all the three divisions of the United Kingdom. Every local Branch has a proportionate share of direct representation in the Council of this Association, which is wholly composed of delegates from Branches, and of the vice-presidents and other members who have held certain offices of importance in the Association. Every medical man, from Land's End to John o' Groat's, has thus an opportunity, by joining this Association, of being an active, and, if he choose, a potent, unit in the most numerous and powerful professional brotherhood ever formed. In the pages of the BRITISH MEDICAL JOURNAL, which is open to all, and in which the humblest member of the Association has as much a sense of property as the most eminent, every member has the opportunity of bringing himself into direct communication, on matters of professional and social interest, with the greatest mass of professional readers ever yet obtained for any medical writer. The Association is based on the great principle that union is strength; that the interests of each member of the medical brotherhood, are and should be dear to the whole; and that each one should do his part, by individual exertion and by joining with his brethren, to afford the profession in the three countries a broad and free platform on which all may meet in fraternal good-will, to promote together the increase of knowledge and the maintenance of the honour and dignity of the profession.

We look forward, therefore, to the meeting in Edinburgh with unusual pleasure. Many long years have passed since the Association met on Scottish ground; it was then less fully developed and less numerous; its weekly JOURNAL was less rich in scientific matter, and had less than one-half of its present contents; its branches were less carefully organised, fewer and less active. The Association comes now to Scotland, rich in past records of its achievement, still young and vigorous, prosperous in its worldly affairs, eager to join hands with our Scottish brethren, and to invite them to a full share in its councils, in its labours, and in the direction of its work; anxious to profit by the scientific ardour of the great school of Scottish science to which, through its Edinburgh Committee, it already owes so much; and desirous to place in the hands of every Scottish practitioner in the most remote parts of the kingdom the potent weapons for scientific and social advance forged by forty years of patient labour, and the increasing force of an ever-spreading union. To join the Association, written application only is necessary in the forms which are issued by letter contemporaneously with this JOURNAL.

The objects which our founders had in view were, as Dr. Quain last year eloquently stated them, "to make this Association a means of union and strength for the whole professional body, an instrument in elevating the moral, social, and scientific character of our profession, and of advancing the public good, with which all our best aims are intimately allied". These are the objects which it has steadily followed; they are those which we invite our brethren in Scotland to help us to pursue by becoming members of our body.

THE ANTAGONISM OF MEDICINES.

ONE of the most interesting events at the late annual meeting of the Association at Norwich was undoubtedly the presentation by Dr. Hughes Bennett of the Report of the Committee appointed to investigate the Antagonism of Medicines. This Committee was appointed in 1869, at the annual meeting in Leeds, and consisted of Dr. Hughes Bennett (Convener and Reporter), Dr. McKendrick, Dr. Rogers, Dr. Stevenson Macadam, Mr. Thomas Smith, and Dr. Edmund Cook. Latterly, also, it included Dr. Alexander Bennett. These gentlemen carried on the investigation from 1869 to the summer of 1874. With the exception, however, of a short verbal report made by Dr. Bennett to the Physiological Section of the meeting at Newcastle in 1870, the profession were not informed of what was being done. The report was, therefore, eagerly anticipated by all interested in the advancement of scientific medicine; and, when it was read, there was a large attendance of members of the Association. Those who were present will not soon forget either the clearness and vivacity with which Dr. Bennett laid before the meeting the chief results arrived at by the Committee, or the earnestness with which he urged the Association to continue to assist such investigations into the actions of medicines and the phenomena of disease.

Since the beginning of October, the report has been passing through our columns, and it is now nearly completed. With its bristling array of figures and tables and condensed statements, it does not at first sight form an attractive course of reading, and consequently it may not have received from the profession generally the amount of attention it merits. We are sure, however, that those who resolutely peruse it will find much that is not only interesting from a scientific point of view, but also much that has important relations to practice. There are those who are specially qualified by experience in similar investigations to form an opinion as to the value of the researches as contributions to physiological and therapeutical knowledge, and from them we may expect discussion and criticism. In the meantime, for the benefit of our general readers, it may not be uninteresting to consider shortly the general question of antagonism, and to state the principal results arrived at by our Committee.

When certain substances are introduced into the living body, we find certain physiological effects produced. These effects vary according to the substances employed and to the conditions of the body at the time they are administered. When a living being was seen suffering from the effects of a deadly poison, men naturally endeavoured to introduce into the body some substance or other which would counteract the effects of the poison. From the earliest times, therefore, men have been familiar with so-called antidotes; and these have been freely given, without any definite information as to the manner in which the antidote acts. The action of many antidotes can now be explained by chemical laws: alkalies and acids neutralise each other; tannic acid precipitates tartar emetic and many alkaloids; hydrated sesquioxide of iron throws down arsenious acid. But, valuable as these antidotes are while the poison is in the stomach or bowel, they are useless after it has passed into the blood. As physiological science progressed, more exact information was obtained regarding the special structure or organ affected by particular poisons. One substance was found to act chiefly on the brain, another on the spinal cord, and a third on the blood-vessels. It was then observed that certain substances had apparently antagonistic actions on the same organ. Belladonna dilated the pupil, while opium contracted it. This led to the idea of a special physiological antagonism; and it was supposed that, if two substances acting in different and opposite ways on the pupil were introduced into the body at the same time, the pupil might possibly not be affected.

Many researches into supposed instances of antagonism have been made in recent years; such as those by John Harley on opium and belladonna; by Preyer on atropia and prussic acid; by Schmiedeberg and Koppe on atropia and muscardine; by Thomas Fraser on physostigmia and atropia; and, still more recently, by Köhler on saponin and digitalin.* These investigations are now supplemented by those of the Committee, and the fact of true physiological antagonism must be regarded as completely established.

The method pursued by the Committee was thoroughly scientific. In all cases, the animals were weighed, and the dose was accurately measured. The element of time was also taken into account, and the general effects were observed and registered. Special methods of observation, with all the appliances of modern physiological investigation, were followed in special cases, as, for example, as to the action of atropia and morphia on the nerves of the heart. One substance was not held to be antagonistic to another unless life were saved from what would otherwise have been a fatal dose; and "in all cases a crucial test was performed, consisting, when any supposed antagonistic action had saved the animal, in injecting the same dose of the active substance into the same animal a week or ten days afterwards. If death then took place, it was held that the two substances were antagonistic." (BRITISH MEDICAL JOURNAL, p. 430.)

The Committee have investigated no fewer than twelve examples of physiological antagonism, and in this elaborate research have performed over six hundred experiments. In four of these examples—namely, between hydrate of chloral and strychnia, sulphate of atropia and Calabar bean, hydrate of chloral and Calabar bean, and hydrate of bromal and atropia—the physiological antagonism was clear and decisive. It has been shown that, within certain limits as regards amount of dose and time, one of these substances will as certainly antagonise physiologically the action of the other, as an acid will unite with a base to form a salt. In six cases—namely, between sulphate of atropia and meconate of morphia, meconate of morphia and theine, meconate of morphia and caffeine, meconate of morphia and guaranine, meconate of morphia and infusion of tea, and meconate of morphia and infusion of coffee—the result is more doubtful. Here we have examples of the one substance so modifying the effects of the other as to favour the chance of recovery; and in some cases recovery did take place after the exhibition of what would otherwise have been a fatal dose of the alkaloid. Still there is not the same clear evidence of antagonism as in the former cases; and, considering the vast importance of finding an antagonist to morphia and its salts, this part of the subject demands more extended investigation. Any future committee or private investigator has here an accumulation of facts of the highest value, both as regards the physiological action of morphia and that of theine and its allies, caffeine and guaranine. The remaining two cases of supposed antagonism investigated—namely, hydrochlorate and meconate of morphia and Calabar bean, and Calabar bean and strychnia—were fruitless, as no antagonism whatever was found to exist between these substances.

Such is a brief summary of the labours of the Committee. They demonstrate clearly (1) the general fact of antagonism; (2) the fact that antagonism exists within narrow limits, both as regards the amount of dose and the time when the antagonistic substance is administered; and (3) the fact that antagonism is favoured by such general treatment as avoids untoward symptoms and favours the chance of recovery.

This report has a double interest. It is interesting from the point of view of pure science, inasmuch as it increases our knowledge of the physiological actions of various active substances; but it has also a practical interest, both as regards the treatment of cases of poisoning and the treatment of disease. With respect to the treatment of cases of poisoning, nothing more need be said. So far as the zymotic diseases are concerned, such researches encourage us in the hope that the time may come when we may be able to deal with them on the principle of physiological antagonism. If the hypothesis that these diseases are caused by active substances, whether animal, vegetable, or organic, originating outside the body, pass into the region of fact, may we not hope to antagonise the actions of these substances by others having different physiological effects? The question of antagonism thus assumes a practical aspect as yet realised by few, but which may ultimately affect our views of the treatment of zymotic disease. After Dr. Bennett has summed up his report, there are certain other points which may then be conveniently discussed.

THE ENGLISH MINIMUM QUALIFICATION TO PRACTISE.

WE referred last week to the satisfactory conclusion at which the Council of the College of Surgeons arrived after two meetings, in respect to the adoption of measures for carrying out the conjoint scheme of examination, by which a single and uniform minimum qualification will be adopted in England as the one portal to practise leaving of course intact the higher degrees of universities and the fellowship of the Colleges, which will still remain as objects of ambition for those who desire to attain the higher walks of practice, or to hold the most distinguished diplomas of proficiency. The desirability of such a result has been urged in these columns for many years; its necessity was demonstrated by the analysis of the *Medical Register*, which we published in March 1868, when it was shown that 20,014 practitioners were on the *Register* as legally entitled to practise in all branches of medicine and surgery, of whom not fewer than 3,072 had qualifications in surgery only, and not fewer than 1,440 in medicine only.

From that moment dated the serious resolution on the part of the Government, the General Medical Council, and many of the examining bodies, to take measures which should provide for the complete examination of every candidate for practice in all the departments of medicine, surgery, and the allied sciences, before he was entitled to be placed on the *Register* as a qualified practitioner. This resolution culminated in the Government Medical Reform Bill of 1870, which was accepted by all parties, and would have passed both Houses without difficulty but for the opposition raised by the Direct Representation Committee, which had a large mandate from the profession to refuse assent to any Bill which did not provide for direct representation of the profession on the General Medical Council. Arrested on this point during that session, the Bill was attacked subsequently on more vital points; and so much dissension sprang up, that the chances of medical reform legislation, as to which there was for the moment an enforced concord, must be regarded as being more distant at this moment than at any time during the last ten years. Each separate interest maintains a free fight, and the prospects of the degree of concord necessary for Parliamentary action are faint and far off.

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* Klebs, Naunyn, and Schmiedeberg's *Archiv für Experimentelle Pathologie und Pharmakologie*. Leipsig: 1874.

Under these circumstances, the General Medical Council adopted the course of inviting and urging the universities and corporations to concur in lessening the multiplicity of tests for the minimum qualification to practice, and to establish in each kingdom an uniform minimum qualification, which should be the first essential for practice, but which every one must pass, prior to going on to any higher degree or diploma, if he desired such. Negotiations set on foot in Scotland and in Ireland to this end have not yet proved fruitful. In England, there has been a more general concurrence of opinion as to the wisdom and convenience of this course, and a steady effort to attain it.

The negotiations were first initiated by the Royal College of Physicians and the Royal College of Surgeons of London; the Universities of Oxford, Cambridge, and Durham consented, from a desire to further what they held to be an object of public good, to sacrifice one of their privileges, and to assist by delegates in a project which offers them no advantage. The University of London not only did the same; but, finding itself precluded by its charter from taking the necessary steps, it obtained an "enabling Bill". The Society of Apothecaries has had to adopt the like measure. There remains only the College of Surgeons, which had taken the most active part in bringing about the basis of agreement, and which had, in Sir James Paget, appointed the responsible chief of the Committee of Reference, which has laid down the scheme of carrying out examination. At the last moment, the Council of the College was awakened to the unpleasant fact that they, too, were fettered by their charter with conditions which made it impossible for them to adopt the scheme to which they were pledged by six years of active effort, and by the assent of their delegates.

Here a fresh fact intervened. The College of Surgeons of England is the body through which the great mass of practitioners in England enter the profession; it is justly proud of its pre-eminence, and of its great appanage, the Hunterian Museum. It is not always possible to enjoy all the advantages of association and yet to retain the solitary greatness of pre-eminent individuality. Some persons in the Council had taken alarm; and some fear was not without reason entertained, that craven counsels might prevail, and that, at the last moment, the College, which has the glory of having been foremost in the work of consolidation, might withdraw before "the edifice was crowned". Happily this retrograde movement has failed, and the honour of the College is safe.

At the last meeting of the Council, it has been resolved, on the report of a Special Committee, to apply for an "enabling Bill" similar to those which the University of London and the Society of Apothecaries have already obtained. The necessary arrangements for settling the terms of the Bill will presently be made, with the assistance of counsel learned in the law; and the work will be completed in this part of the United Kingdom. In the difficult and tedious proceedings which have been necessary, much of the success at last attained is due to the Secretaries of the Colleges, Dr. Pitman and Mr. Trimmer. The attitude of our contemporaries in the medical press has been changeable. From ourselves, the scheme has necessarily had earnest and constant support; it is not very indirectly our child. The *Medical Times and Gazette* and the *Lancet* have at various times overwhelmed it with ridicule and denunciation. The latter newspaper has passed through various shifting stages of indecision, but now greets it with enthusiastic welcome. The *Medical Times and Gazette* is, we apprehend, preparing by its silence also for a more subdued and intelligent support of a scheme which will undoubtedly be a boon to the whole profession in future days, and is an act of justice to the people of this country. Both have a right to demand that the minimum test of qualification to practise shall in this, as in other European countries, be simple, uniform, and sufficient. For England, this is now in the way of being practically accomplished.

STATE MEDICINE DIPLOMAS.

THE letter which we publish in another column, from Dr. Parsons, expresses the very natural opinion that, of all the Universities, the University of London has the greatest facilities for granting certificates in Public Medicine, since it is the University *par excellence* which makes it the rule to grant diplomas without residence, although after a very lengthened curriculum. Our correspondent is right in the opinion which he expresses as to what ought to be done in reference to the important question of State Medicine, but he has not made himself sufficiently well informed as to what has been done. The Medical Committee of the Senate of the University of London has, we are informed, prepared a plan for a course of study and examination in subjects relating to public health; but whether a certificate of proficiency in these subjects, or a degree, should be conferred, has not been yet determined. Our correspondent is wrong in reference to the course adopted by other Universities. Dublin is prepared to give, not a degree, but a certificate of qualification in State Medicine, to such of its Doctors in Medicine as pass an examination in the subjects relating to public health. Cambridge proposes to grant a *certificate of competency* to any registered medical practitioner of twenty-four years of age who can pass a certain examination; while Edinburgh proposes to grant the degrees of *Bachelor and Doctor of Science* in the department of Public Health. The whole subject of Public Medicine is a new one, and there are more difficulties in the matter of establishing these degrees or qualifications than are apparent on the surface. Already there is a wide difference in the course adopted by the Universities of Dublin, Cambridge, and Edinburgh. The subject of State Medicine is far more comprehensive than that of sanitary science or public health, which it in fact includes; yet they are spoken of synonymously. Many persons object to the separation of State Medicine or Sanitary Medicine from the practice of medicine generally; whilst not a few of the graduates of the University of London protest against any addition to the long course of study and to the severe examination through which they have even now to pass. The course adopted by the University of Cambridge would seem to be, for the moment, the simplest and the wisest, and it is that which might be advantageously adopted by the other Universities. A more general scheme must be looked for on the larger basis propounded by the State Medicine Qualifications Committee of the British Medical Association.

WE understand that Dr. Lionel Beale will, after Christmas, undertake the duties of Professor of Physiology in King's College, vacant by the appointment of Dr. Rutherford to the University of Edinburgh.

WE learn that Messrs. Longman are making arrangements for the publication of a Dictionary of Medicine in one volume, under the editorship of Dr. Quain.

THE duties of the Lectureship on Medicine at the Westminster Hospital, vacant by the lamented death of Dr. Anstie, are fulfilled by Dr. Basham and Dr. Fincham jointly.

FROM recent experiments, Professor Lister has, we are informed, arrived at the conclusion that the septic matter present in water is not in solution, but consists of insoluble particles, which are held in suspense.

AT the Sanitary Conference to be held at Birmingham, on January 14th, "The Sanitary Condition of Large Towns", and "The Dwellings of the Poor", will form the chief subjects of discussion and consideration.

THE usual monthly meeting of the Society of Medical Officers of Health takes place this evening (19th) at the Scottish Corporation Rooms, Crane Court.

SCARLET fever having again appeared at Castle Cary, it is proposed to erect an infirmary; and one gentleman has offered to give a site and £50, and another £100.

DR. DAVID LYALL, Staff-Surgeon, R.N., has been appointed to co-operate with Mr. Lewis, Paymaster, R.N., to examine into the character of the food which will be supplied to the Arctic Expedition. Dr. Lyall is said to be an old Arctic explorer.

DR. F. J. MOUAT has been shifted to fill the vacancy caused by the decease of Dr. Edward Smith as Medical Inspector for Poor-law purposes. But no successor has been appointed to Dr. Mouat. The medical staff of the Local Government Board is already very short-handed, and the work suffers in consequence.

AFTER a long investigation, a charge against Mr. Maclure, surgeon, of obtaining £350 by false pretences from Mr. John Abernethy Hicks, also a surgeon, closed on Saturday. It was said that the defendant had represented his practice at Twerton, near Bath, to be worth £750 a year, that numerons persons of position were his patients, and that he had been offered more money than the prosecutor was willing to give. The bench dismissed the case.

THE PHYSIOLOGY OF SPASM AND PALSY OF THE LARYNX.

DR. GEORGE JOHNSON'S paper, read at the last meeting of the Royal Medical and Chirurgical Society, raises a very interesting question with reference to the physiology of the larynx. The paper is a practical outcome of careful laryngoscopic examination in two cases of aneurism. In a case of aneurism of the innominata, with pressure on the right vagus and recurrent, Dr. Bäumler had observed bilateral palsy of the larynx; and Dr. Johnson observed the same phenomena with an aneurism of the aorta pressing on the left vagus and recurrent. The question then arose, what is the explanation of the bilateral palsy of the larynx which results from pressure on the vagus and recurrent nerve on one side only? Dr. Johnson answers this question by suggesting that, while the palsy on the one side is a direct result of pressure on the recurrent nerve, that on the opposite side is due to an influence propagated through the afferent fibres of the compressed and irritated vagus to the nervous centre, and thence through the efferent fibres of the other vagus to the muscles of the larynx on that side; so that, in accordance with this view, while the palsy on one side of the larynx is a direct result of pressure on the recurrent, that on the opposite side is an indirect result of irritation of the trunk of one vagus transmitted to its centre of origin, and thence reflected through the associated vagus to the muscles on the opposite side of the larynx. The arguments in support of this explanation will be found in the abstract of Dr. Johnson's paper, which we publish elsewhere; and it will be seen that the results of experiments on living animals lend support to the theory. It is shown that irritation of the recurrent nerve excites movement of the vocal cord on the one side only, while an electrical stimulus applied to the central cord of the divided superior laryngeal nerve excites a reflex bilateral spasm of the glottis. In short, while a stimulus applied to one efferent nerve excites unilateral contraction of the laryngeal muscles, the excitation of the afferent fibres of one vagus determines a reflex bilateral contraction. This, then, is the explanation of the bilateral *spasm* of the larynx which results from unilateral nervous irritation. In explanation of the bilateral *palsy* induced by the long continued irritation of the trunk of one vagus, Dr. Johnson refers to the structural changes which Dr. Lockhart Clarke has demonstrated to occur in the spinal cord as a result of peripheral nervous irritation in cases of traumatic tetanus; and he suggests that in any future case that may occur in which a bilateral palsy of the glottis, revealed by laryngoscopic examination during life, is found associated with an aneurism pressing on the vagus and recurrent nerve on one side only, a careful microscopic scrutiny of the medulla oblongata will probably discover, in the nerve-nuclei and the commissural fibres of the spinal accessory and the vagi nerves, structural changes which will fully explain the bilateral palsy, and thus supply the only evidence which is wanting to establish the truth of the theory.

DEATH FROM CHLOROFORM.

A YOUNG lad, named G. I. Weston, aged 14, died on the 15th inst., at the Royal Free Hospital, whilst under the influence of chloroform. Mr. F. J. Gant, surgeon, said, that when the deceased was admitted, it was thought that the hip had been dislocated. When he examined the lad it gave him great pain. He ordered Mr. Thompson, house-surgeon, to administer chloroform. The chloroform was administered for about two minutes, during which time about sixty drops were inhaled. The deceased seemed to be half sensible; and on looking round, they saw the lad fainting, and in a dangerous state. Silvester's respiratory method and galvanism were applied, but without effect, for the lad died at once. A *post mortem* examination was made. All the organs were sound. The cause of death was syncope from the effects of chloroform. A verdict of death from misadventure was returned.

BENEFIT SOCIETIES AND MEDICAL AID.

MR. W. MILSTED HARMER writes to the *Sussex Advertiser* of Dec. 9th, to point out that the pay for attendance upon sick members of benefit societies is most inadequate. This is an old grievance, and has often been discussed in the columns of this JOURNAL. But we are glad to revert to it once more, because it is very important that some remedy should be found for a state of things which is at once unjust to the medical officers and degrading to our profession. We have from time to time recommended the formation of sick societies under the control of the medical men of the district, and at rates which would be reasonably remunerative. But, if the establishment of separate societies entails too much labour upon men who are already pressed with work, there is no valid reason why we should not, if we are true to one another, and loyal to our profession, unite in insisting upon better terms from the existing benefit clubs. Why should we be contented with a capitation fee of 4s., when the Provident Dispensaries require 6s. a head; and that, even, while they are supplemented by the contributions of the rich? The special remedy which Mr. Harmer desires to put forward, is one which has been suggested by Mr. Wiles, the Secretary of the Foresters' Court at Hawkhurst, and, coming from such a source, is well worthy of attention. For the details we must refer our readers to Mr. Harmer's letter; but the proposal, put simply, amounts to this—that members when sick should be paid for at the rate of half-a-crown a day, to include everything. Mr. Harmer says:

> I think that, looking at the various conditions of classes of men who compose the clubs generally, that the arrangement to allow medical men two shillings and sixpence a day is satisfactory, no man to receive medical attendance unless under a certificate of ill health. Under an arrangement of this kind, a member of the club could choose his own medical man. He would feel independent, and that he was not going to his medical man on the level of a common pauper. If clubs have been paying medical men well, let them adopt a plan similar to that suggested by Mr. Wiles, and only pay when their members are ill, and if the managers of clubs are right, they will have the balance in their treasurer's hands. Many will say that such a system as that proposed by Mr. Wiles could not be paid for by many clubs. I am of the opinion that, with proper rules which should prevent "loafers" from receiving medical relief, that all clubs would experience great and lasting benefits on Mr. Wiles's plan. Who ought to run the risk of the amount of sickness and the length of the medical bill? The hundreds of men of many stations in life who form the various clubs, or the doctors; or who can best afford it, the one or the many?

The plan suggested would probably be acceptable to the medical officers, but we fear that there is little chance of its being adopted generally by benefit societies, because it would involve them in an uncertain outlay, which would be largest in unhealthy seasons, when their funds could least afford an additional burden. We also feel, that no plan will be really satisfactory which does not in some way provide for the medical wants of the wives and children of the members.

THE HYGIENE OF CONTAGIOUS DISEASES.

THE very valuable letter of Dr. Parkes of Netley, on the operation of the Contagious Diseases Acts, which we publish in another column, will not fail to be read with interest. We observe that, although the contrary, as it appears to us, has been very conclusively proved in these columns, Mr. Stansfeld continues to assert that, from the hygienic point of view, these Acts are a failure. Such an assertion must be based upon some sort of facts. It is not, we think, asking too much of Mr. Stansfeld, to beg him to be good enough to state the figures on which he relies for his assertion. A friend of liberty must also be a friend of truth. Mr. Stansfeld is, of course, perfectly justified in opposing any legislation of which he disapproves. He will not, we are sure, think himself justified in misrepresenting the facts on which it is based, and by which it is recommended.

A NEW FACE WITH OLD LIGHTS.

THE appeal made to the Fellows of the London College of Physicians to supply funds for renovating the fine but rather dilapidated façade of the building, has met with a very liberal response. About eleven hundred pounds were quickly subscribed, including some handsome subscriptions of very large sums. The results are seen in a very satisfactory restoration of the exterior of the building, to a creditable and handsome appearance. The improvement in the freshness of the stone front, however, brings out into rather contrast the poorness of the ill-glazed windows and dingy frames. As there are, we believe, three or four hundred pounds left unexpended out of the total sum subscribed, it may be hoped that the windows will be brought into harmony with the generally improved façade before the repairs are concluded. A new face with old lights must be distasteful in principle, alike to the conservative and to the progressive elements of the College.

MURDEROUS ASSAULT ON A MEDICAL MAN.

DR. LAURA, professor in the University of Turin, while walking in the street on November 26th, was suddenly attacked by a man, who wounded him in the neck with a dagger. In defending himself, Dr. Laura received several wounds, two of which, in the head and hand, were severe. Several persons having come to his assistance, the assailant was captured. He is described as a man aged about 36, out of employment, and as alleging that there was a quarrel between him and Dr. Laura, the grounds of which he could not disclose. Dr. Laura is reported to be progressing favourably towards recovery.

THE ORGANISATION OF CHARITY.

WE have received a pamphlet upon this subject by Mr. Charles B. P. Bosanquet, the secretary of the society for organising charitable relief and repressing mendicity. It consists of a paper read at the recent meeting of the Social Science Association at Glasgow, and its object is to explain in general terms the mode in which the Society endeavours to carry out the end it has proposed to itself, and it tells both the poor and the rich how they may best avail themselves of its machinery. In the metropolis, the Society is gradually gaining the confidence of the public, and is becoming a recognised organ for the correction of abuses, and the wise distribution of charitable relief. For us, its operations have a special interest. There is probably no class of charities which needs reform and organisation more than the medical. Perhaps a few years ago the educational charities were as much misused; but recent Acts of Parliament, and the growth of a healthy public opinion, have done much to correct their administration. But, in order to carry out a similar reform in the medical charities, we need the aid of just such a powerful non-medical association as the Charity Organisation Society to educate public opinion. Without the hearty co-operation of the lay governors, it is hopeless to expect any fundamental improvement. There can be no doubt that there is among the medical charities a great deal of overlapping and waste of relief; while the assistance given is often ineffectual from want of information respecting the home-surroundings of the applicants. We are glad, therefore, to observe, that the Charity Organisation Society, in its survey of the charities of the metropolis, does not overlook those with which we are more immediately connected. If it can help us to introduce the much-needed reforms, and to make medical relief both more discriminating and more efficient, we shall gladly welcome its assistance.

SIR CORDY BURROWS ON THE MEDICAL CHARITIES.

AT the annual meeting of the Brighton Charity Organisation Society, which was held in the Pavilion on the 27th ult., under the presidency of the Mayor, the first resolution was proposed by Sir Cordy Burrows. In the course of his speech, after having observed that there was probably no town in the kingdom were the poor were more considerately and more admirably relieved than in Brighton, he spoke a few words with respect to the medical charities. He unhesitatingly stated, as a medical man of long standing and experience, that there were few medical charities in this country that were not grossly abused, and went a great way towards pauperising the people of the land. Referring to the medical charities of Brighton, he pointed out that many of the patients of the Sussex County Hospital were the servants of people who ought to take care of them during sickness; and this was neither fair nor right. When a servant entered into a house, that servant ought to be regarded as a poorer member of the family, and solaced and comforted as such; otherwise, those who subscribed to such charities as the Sussex County Hospital, were aiding richer people than themselves to support their servants. The Provident Dispensary and Lying-in Institution he represented as worthy of support, because they tended to make the people independent.

THE WOOLWICH OUTBREAK OF DIPHTHERIA.

WE are glad to be able to state that the lamentable outbreak of diphtheria on Woolwich Common has now begun to assume much more manageable proportions. Only one fresh instance of the disease has been reported from the Royal Artillery cottages within the last few days, and the cases still under treatment in the Herbert Hospital are making satisfactory progress. It may not be without interest to subjoin a brief statistical record of the epidemic up to the present time; and to draw attention to the curious fact, that the first series of cases took place in a corrugated iron hut, occupied by a sergeant-major and his family, where the sanitary conditions were favourable, and no overcrowding could be proved to exist. The epidemic began seriously on November 16th, with six admissions—three from a hut, two from the R.A. cottages, and one from a staff-sergeant's quarter near the repository. Of these, five proved fatal in two days. From November 20th to 24th, a lull took place; but, on the 25th, two admissions were recorded, both ending fatally, one in two, and the other in three days. From November 25th to December 5th, another remission was observed, since which date the type of disease has become much milder, and no fresh death in hospital has occurred since November 29th. The entire total of admissions and deaths has been as follows:

From Cottages	15 admissions,	7 deaths
Huts	3 ,,	2 ,,
Staff-sergeant's hut near repository	2 ,,	2 ,,
Town of Woolwich	8 ,,	5 ,,
Total ...	28 ,,	16 ,,

The age of the youngest patient was one and a half years; of the eldest, twelve years; the average age was about three and a half years. It is somewhat significant to note that, in addition to the number above tabulated, of the children of soldiers married without leave, attacked in the town of Woolwich itself, a considerable number of cases have also made their appearance among the civil population. There, one practitioner had had fourteen under his care, including three adults, with at least five deaths; and in Charlton, at Lansdowne Terrace, three cases have been reported, with two deaths, but no cases have been admitted from the Cambridge cottages, or any of the neighbouring barracks. As there is no reason to suspect that these various foci of infection among the inhabitants of Woolwich had anything but an independent origin, the inference seems clear that some special atmospheric or epidemic influence was at work, over and above the insanitary condition of the huts themselves. Considering the exceptionally large sums of money which have been expended on the improvement of Woolwich, within recent years, it cannot but seem strange that these married quarters should be permitted to remain as the decaying evidence of faulty construction perpetrated fifty or sixty years ago. Although hardly deserving the full measure of picturesque censure, so forcibly meted out by our contemporaries of the daily press, it cannot be denied that these structures transgress all the first principles of modern civilisation, and that damp and overcrowding are but some of the evils which only total demolition can ever cure. And lest it may be thought that the medical department has been in any way neglectful of its clear duty to press upon the authorities the danger of permitting such a hot-bed of disease to exist, we may conclude by stating that the subject has been reported over and over again, and by submitting a brief extract from Deputy-Inspector Barrow's report in 1857, referring to an epidemic of scarlet fever: "Improvements are contemplated, but I hope these wretched cottages will be pulled down before long, and additional model Cambridge cottages erected."

GUERRE AUX PROVINCES.

A CONTEMPORARY, which has for the last few years seriously but ineffectually opposed the election of provincial surgeons on the Council of the College of Surgeons of England, goes out of its way to notice that, at the last meeting of the Council, neither Mr. Southam of Manchester nor Mr. Baker of Birmingham was present. If it were necessary to prominently notify that fact in a newspaper which does not publish the absence of metropolitan surgeons, it might have been more generous to add that Mr. Southam and Mr. Baker have been most regular and exemplary in their attendance at the College, and that both were in town on the previous Monday, in order to attend the important meeting of Council at which the report on the Conjoint Scheme was carried, which at the meeting in question was only confirmed. It might also have added, had its motive been a more liberal one, that, unlike some metropolitan members who were also absent, the two gentlemen in question had addressed letters to the Council, and had explained their causes of absence. Whence this morbid hatred of the provinces in the breast of our excellent contemporary the *Lancet?*

DEATH FOLLOWING EXPLOSION OF GAS.

WE regret to announce the death, under somewhat peculiar circumstances, of Mr. John B. Foster of Upper Wimpole Street. An explosion of gas in the room in which he was led to an attack of meningitis, of which he died in a few days. Mr. Foster, who was but thirty-two years of age, pursued his medical studies at University College and at the University of Cambridge; and was for about the last ten years the confidential friend and assistant of Sir Henry Thompson. He was an able surgeon, and much esteemed for his kindly manner by a large circle of friends and patients.

IRELAND.

DUBLIN HOSPITAL SUNDAY FUND.

THE total of the Sunday collections in aid of the Dublin hospitals amounts to £3200. We understand the expenses are small, and that probably a clear sum of £3000 will be available for distribution, leaving a balance to be transferred to next year's account to meet such current expenses as may rise during the year 1875.

SANITARY CONDITION OF ENNIS.

A REPORT lately submitted to the Town Commissioners of Ennis, co. Clare, by the sanitary officer, Dr. Greene, has exposed a condition of affairs in a sanitary point of view of a most serious aspect, and which will require the adoption of prompt measures for their abatement. The filth, stagnant pools, and the water used by the public, all require to be dealt with; the latter being obtained from the neighbouring river, which is largely impregnated with sewage, and contaminated by the washing of sheepskins and other impurities.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS AND THE SUPPLEMENTAL CHARTER.

WE understand that a reply from the College at large to the dissent put forward by five of the fellows, to which we referred last week, is in preparation, and, when complete, will be forwarded to the Lord Lieutenant; and we hope, for the sake of the reputation of all concerned, that it will, when forwarded, be made public. At present, we see no reason to doubt the *bona fides* of the College on the matter.

THE WORKING OF THE PUBLIC HEALTH ACT.

THE Local Government Board has definitely refused to approve of the salaries to the Dublin dispensary medical officers for their duties under the Public Health Act fixed by the Dublin Corporation Committee. The Board has taken the matter into its own hands, and will issue an "order under seal" directing the amount of salary to be paid. This will be a sort of test-case; and we hope the Local Government Board will prove themselves equal to the occasion, and show justice to the Irish dispensary officers, who have loyally accepted responsible and troublesome posts on the good faith of the Government.

THE PURIFICATION OF THE LIFFEY AND THE MAIN DRAINAGE OF DUBLIN.

A DEPUTATION—consisting of Sir Arthur Guinness, Bart., M.P. for the City, the Hon. David Plunket, M.P. for the University of Dublin, the President of the College of Physicians, and a considerable number of gentlemen, who represented a committee elected by the ratepayers summoned to consider the state of the main drainage of the city—waited on the Lord Lieutenant, on Monday last, and presented a memorial praying for Governmental interference on behalf of the citizens. The memorial, which occupies two closely printed columns of the *Dublin Evening Mail* of Monday, is perhaps one of the heaviest indictments ever brought against a local authority by a body of indignant ratepayers. We believe there is scarcely to be found so long-suffering a body as the citizens of Dublin, for it seems that, for twenty long years, this grievance has existed; and, with the exception of annual autumnal grumbles, under the stimulation of a stinking river, the citizens have, in a wonderfully docile manner, endured the procrastination of their so-called representatives. It was not until it was discovered that something about a million of money was to be spent—that is, exactly three times the amount sanctioned by Parliament—that the citizens rebelled, held an indignation meeting, appointed a committee, and directed the committee to seek Governmental interference. The memorial gives a history of the twenty years' jobbing and mismanagement, at an average expense, we believe, of considerably over £1000 a year for fees and payment of officials and lawyers. Finally, the memorial suggests the appointment of a Royal Commission to decide the best plan to be adopted, and proposes that the works should be entrusted to a special main drainage board, elected somewhat on the principle of the Metropolitan Board of Works in London. The Lord Lieutenant gave a very indefinite answer, and even suggested that the present authorities might yet do something. His Grace cannot be in earnest when he suggests that the Dublin Corporation, which has been twenty years over this work and done nothing, may yet do something! We believe the only course open to the citizens is at once to put their hands in their own pockets and promote a Bill in Parliament to take away the powers of the present corporate body, and transfer it to a competent authority.

J. R. Martin

SIR J. RANALD MARTIN, KNT., C.B., F.R.S.,

PHYSICIAN TO THE SECRETARY FOR INDIA IN COUNCIL.

WE have the pleasure of presenting to our readers a portrait of the late Sir Ranald Martin, C.B. The leading facts of this eminent man's history are generally known to the profession. He was a native of the Isle of Skye, an island which has given a larger number of eminent soldiers to the service of the Crown, in proportion to its population, than any other part of the kingdom.* Like many other distinguished Scotchmen, James Ranald Martin was "a child of the manse"—a minister's son; on his mother's side, he came of a family (the Macdonalds of Scalpa) celebrated in the Highlands for their military qualities and good looks. Both of these attractive qualities were transmitted in full measure to this worthy scion of their race. Sir John Moore once remarked of Robert Jackson, "the prince of army surgeons", that, if he had not been a great physician, he would have been a great soldier. A somewhat similar observation was often made of Martin by his military friends. He was a soldier all over—"open, bold, and brave"; and the martial blood in him was visible, not only in his general bearing, but in his speech, and almost in every gesture. The fighting blood in him came out when the body guard, being short of combatant officers from the casualties of the field, he led a squadron of that regiment in a charge with all the fiery gallantry of his race.

Mr. Martin began his medical studies in Inverness, under Drs. Robertson and Macdonald, two local celebrities whose names are still held in grateful memory in the capital of the Highlands. In 1813, he became a pupil at St. George's Hospital, and studied under Sir Everard Home and Brodie, diligently pursuing, at the same time, the study of anatomy in Windmill Street, under the famous teachers of that school. In 1817, he sailed for Calcutta, having received an appointment in the medical service of the Honourable East India Company. There Mr. Martin quickly attracted notice by his zeal and diligence, and his untiring devotion to his profession. And here let it be said, to the credit both of the past and present rulers in India, that they have never been slow to recognise and to reward such qualities in the medical servants of the State. In such a climate, the services of an able physician are early known and appreciated; and, if in this fact we can detect perhaps a little enlightened self-interest, we must not judge it too severely. Mr. Martin's service in India was not very long, as service was measured in that day; it did not exceed twenty-three years, including periods of unavoidable absence on sick leave. Yet into that time he crowded a great deal of honest work. He served in Orissa and Gundwana, and in the campaigns of Sir Archibald Campbell in Burmah, where he had too many opportunities of seeing the disastrous effects of entrusting great military operations in unhealthy climates to officers who ostentatiously despise sanitary advice. Sir Archibald strongly held the doctrine that the business of doctors "was to cure, and not to prevent, disease". This commander was the author of a saying, often in after years told by Sir Ranald, "medical advice, sir, is a very good thing—when it is asked". What would the principal medical officer of a great field force in the present day say if addressed by his chief in such terms when giving advice touching the health of his army? What would the public say when "our own correspondent" telegraphed the stupid and insolent remark to the *Times*? The outcome all the world knows; for every four soldiers killed in action, somewhere about four hundred died of disease, most of them from preventable disease—scurvy having, from miserably defective arrangements, engrafted itself on the endemic and epidemic diseases that scourged the force. It was the fortune of the writer of this article to see the same advice despised, the same food errors repeated, with the same disastrous results, on the island of Chusan, in the year 1840, under a commander of the same mental calibre, to whom, "in the ordinary routine of the service", the lives of hundreds of brave men were committed—such men, too, as, alas! we look for in vain in the ranks in the present day.

The remaining years of Mr. Martin's service in India were spent in Calcutta, where he served as surgeon to the Governor-General, surgeon to the General Hospital, and garrison-surgeon; not, of course, holding all the above offices at the same time. Enjoying, as he did, the confidence of the whole community, official and non-official, Mr. Martin's civil practice was large and lucrative. It was while so engaged that he won the friendship of two men, whose names are intimately associated with some of the best and most memorable acts of British rule in India—Lord William Bentinck, and Charles, afterwards Lord Metcalf. The first abolished suttee; the second gave freedom to the press. Both possessed the instinct or faculty so invaluable to a ruler, of knowing a good man when they saw him. They saw Ranald Martin, and knew him on the instant to be of the kind out of which good public servants are made, and used and trusted him accordingly. If asked to say what it is that should always make us hold the memory of this man in grateful remembrance, we should unhesitatingly say that it is because he was the father of preventive medicine in India. He saw and recognised the fact that not the least part of the business of his profession was diligently to prevent disease. This is a truism now; if we except the two great statesmen abovenamed, it was very new, both in civil and in military circles, when Mr. Martin promulgated it. He saw that the fearful mortality of the army of India could not all be set down to climate, and he did his utmost through good and evil report to spread the idea that an immense amount of it was preventable. It was, as we have said, a new idea in India, and it was long ere it took root and grew and put forth leaves and fruit. But he lived to see much of what was to rulers "a stumbling block", and to aged and respectable fogies of the Medical Board "foolishness", received as the very A B C of good civil and military sanitary administration.

Without undervaluing Sir Ranald Martin's services to the art of curative tropical medicine, and in particular his efforts to discourage the excessive abuse of mercury in the treatment of disease, we think his fame as an Indian medical officer will rest chiefly on his having been the pioneer in India of sanitary reform.

Mr. Martin retired from the service in 1840, and settled in London for the purpose of engaging in practice. For many years, his practice was very large. It is hardly too much to say, that he saw nearly every case of severe tropical disease in the upper ranks of society brought to London. This, although lucrative while it lasts, is a kind of practice beset with dangers almost peculiar to itself. An immense proportion of cases of this kind are past all remedial treatment; consequently, the name of the practitioner called to them, often merely at the last moment, to share the responsibility of those in charge, or to satisfy friends and relations, becomes at last so associated with the inevitably untoward termination of a large proportion of such cases, that, in the long run, the result is injurious even to a first-rate reputation. That the subject of this memoir suffered in this way is well known, the profession can best tell how unjustly.

Mr. Martin took an active part in forwarding the great sanitary movement in this country. He gave his time and his energies, and his great business powers, ungrudgingly to the public in this service; spending days and weeks and months, sitting on Boards and Royal Commissions; inquiring into and reporting on questions of public health, affecting the community and the British and Indian armies; giving up time that might have been devoted to adding to his fortune and making provision for his large family. The medical profession in Great Britain should never forget that he rendered them a service of which many, perhaps most of them, are to this day unconscious. Mr. Martin was an active member of the Commission that inquired into the health of towns, of which the present Duke of Buccleuch was president. It was gravely proposed, and almost settled by the lay members of this Commission, that the health officers to be appointed under this Act were to be—attorneys! on the plea that they were sure to be good men of business. Mr. Martin got up, and in a forcible speech demonstrated the absurdity of the proposition; and, after some discussion, carried the majority of the Commission with him. To the day of his death, Sir Ranald looked back to this as the greatest service he had ever rendered to the public and to his profession.

But it is the medical officers of the British and Indian Armies and the Royal Navy who owe the deepest debt of gratitude to the memory of Ranald Martin. No sooner did he settle himself in London, and make the acquaintance and gain the confidence of public men in England, than he set himself to obtain justice—he never asked for more—to a class of men who render great services to the State wherever their country's flag is known, and whose services he maintained were neither recognised nor requited as they ought to be. "Do you wish, Mr. Martin", said an influential Mr. Worldly Wiseman to him, "do you wish to get on in London, and to make your way here?" "Certainly I do", was the reply. "Then", said Mr. Worldly Wiseman, "let the cause of the army doctors alone; you can't do them much good, and you are sure to make yourself unpopular in high quarters". But he did not "let them alone"; on the contrary, he soon after published a

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* Scotland, which has given a fair share of eminent men to all professions, has given to medicine some of her most distinguished sons. She may well be proud of the conspicuous place in the history of our art held by the three Monro's, Cullen, Gregory, the two Hunters, Baillie, Liston, Syme, Fergusson, Robert Christison, Simpson, and, though last, not least, the much loved name of William Pulteney Alison.

Summary of the Claims of Medical Officers of the Army and Navy to Military Rewards and Distinctions, and finally succeeded in getting his friends Sir Howard Douglas and Sir De Lacy Evans to bring the matter before the House of Commons; the result was, that the honours of the Bath, long persistently refused to medical officers of distinction, are now given on fitting occasions quite as a matter of course. Those who wear this honourable distinction should not forget to whose unselfish efforts they are mainly indebted for it.

We have not space to dwell long on his many valuable contributions to tropical medical literature. He edited and almost rewrote the work of Dr. Jas. Johnson on the *Diseases of the Tropics*—a book which, in its original form, from the reckless way in which mercury was recommended, was hardly a safe guide to young practitioners in the East. Some of the most valuable parts of the reports of the important commissions of which he was a member were from his pen, and in them will be found something more than the germs of most of the improvements which have been carried into practice in all matters relating to the public health, and the organisation of military hospitals, and the treatment of sick and wounded in war.

To the journals of the day he contributed some valuable papers on the treatment of the chronic sequels of tropical disease, in which he embodied the results of his large experience at home. Sir Ranald was *ex officio* a member of the Senate of the Army Medical School. His colleagues will long remember his loyalty to them, the warm support he always gave them in every season of difficulty, the deep interest he took in the business of the Senate, and in everything that tended to improve the education and raise the status of the medical officers of the three services. Such was Ranald Martin in his public life. In social life, he was one of the most genial and kindly of men, large-hearted, generous and hospitable, a man of large and varied reading, abounding in anecdote, and a keen observer of men and things. To all appearance, age had only lightly touched him; deafness was his only apparent failing. But "an old man is a tower undermined"; when we were all admiring its stately proportions, and remarking one to the other how lightly time had touched it, it tottered and fell.

One word more. We have praised the Government in India for their, as a rule, fair appreciation of medical merit. We cannot extend the same praise to the Indian authorities at home. Sir Ranald Martin had little to thank them for. In the days of the Court of Directors, when the appointment he lately resigned became vacant, instead of bestowing it on their most distinguished medical officer, their then chairman was not ashamed to pass him over, and to appoint an obscure suburban practitioner, whose sole "claim" was, that he was the professional adviser of the said chairman's family, and had probably delivered his wife. The Secretary of State for India is the adviser of the Crown in the disposal of an honour reserved exclusively for distinguished service in India. Why is this honour withheld from distinguished Indian medical officers? Certainly, in its higher grades, why was it withheld from one who rendered such valuable service to India, to its Government, and to its brave defenders? We cannot answer the question; but we aver that the "exalted Order of the Star of India" would not have been shorn of a single beam on the breast of Ranald Martin.

Some fitting memorial of the man is surely due to his memory. We venture to suggest that the Lecture Hall at Netley would be the proper place for it; for, although neither "storied urn or animated bust" can "back to its mansion call the fleeting breath", the presence of an "animated bust" in such a place will at least record the gratitude of those he served so well, and may stimulate the rising generation of young medical officers who will there look on it to tread in his footsteps and follow his bright example.

SCIENTIFIC GRANTS.

The British Medical Association, at its last annual meeting, authorised a grant for 1875 of sums not to exceed a total of £200, in aid of original researches in medicine and the allied sciences. At the last meeting of the Committee of Council, the time for receiving applications for aid from this grant was extended to December 27th, 1874. The Committee appointed to receive and report on the applications consists of—Dr. Sibson, F.R.S. (Chairman), the President of the Council, Mr. Southam, and the Treasurer, Dr. Falconer, as *ex officio* members; Mr. Alfred Baker, Dr. Bastian, F.R.S., Dr. Lauder Brunton, F.R.S., Mr. Callender, F.R.S., Dr. Michael Foster, F.R.S., Mr. Ernest Hart, Dr. Sharpey, F.R.S., Dr. Burdon Sanderson, F.R.S., Dr. W. F. Wade, Mr. Wheelhouse, and Dr. S. Wilks, F.R.S. Applications are to be addressed to the General Secretary of the Association, 36, Great Queen Street, W.C.

THE MEETING OF THE BRITISH MEDICAL ASSOCIATION IN EDINBURGH IN 1875.

Our Edinburgh correspondent writes:—The meeting of the British Medical Association, to be held here in August next, is just now exciting general attention in medical circles; and there is no doubt that, if it be carried out with the spirit and energy which have attended the meetings of other scientific societies in Edinburgh, it will prove a great success. Indeed, the medical profession here, as teachers and alumni of the School of Medicine, have every incentive to exertion to make the meeting pass off with *éclat;* for the presence here of large numbers of the most eminent medical practitioners from all parts of England and Scotland, and of not a few, we hope, of the leaders of medical thought and science from the Continent, cannot fail to exert a great stimulating influence on the medical schools; and, flourishing as it is at present, both from the University and the extra-academical point of view, we feel sure that the more the principles and methods of its teaching are examined into and spread abroad, the more success will it meet with.

As to the arrangements for the reception of the visitors and the intellectual and physical pabulum to be provided for them, nothing is yet definitely settled; but we hear of proposal for *conversazioni*, garden-parties, dinners, and other forms of entertainment which, we have no doubt, will be provided with a liberal hand. That the matter may not be entirely confined to our own profession, the example of London, and other large towns where the meetings have been held for the last few years has been followed; and a number of the leading citizens have been or are to be asked to give their assistance in the reception and entertainment of the Association. The private hospitality always to be found in Edinburgh is too well known to leave any ground for doubt that our guests will meet with a very hearty reception. It is intended to take advantage of the natural beauties of the surrounding country, and of the many objects and places of historical or antiquarian interest in this part of Scotland, by arranging an extensive series of excursions under the guidance either of the local medical men in the various districts visited or of others who have a special knowledge of each locality. In this respect, we have perhaps a greater range of interest to offer than any other city in Great Britain; and the mere mention of such places as Melrose, Hawthornden, Abbotsford, Loch Lomond, and the Trossachs, all within no great distance, is sufficient to show the abundance and variety of the places suitable for excursion parties. Should there be a generally expressed wish for the organisation of a dredging party, an expedition down the Clyde to Arran, or down the Forth as far as the Bass Rock or the Isle of May, will very likely be contemplated, each of which localities presents an excellent field for dredging operations.

Judging from the success which attended the meeting of the British Association here in 1872, we hope and expect to have a large gathering; and, in view of that, arrangements will be entered into with the Post Office authorities for postal and telegraphic details, with hotel and lodging-house keepers for accommodation; and suitable places will be secured for the work of the various Sections and the establishment of the Museum. A local journal will also be published for the purpose of giving members notice of the full programme of each day's proceedings. Of the work to be done in the Sections, nothing can of course be said at present; but there seems to be a strong feeling in favour of establishing a scientific Section to be devoted, perhaps, more particularly to papers on physiology and anatomy. As antiseptic surgery has of late formed a very important feature in the teaching and practice of the Edinburgh School, it is anticipated that Professor Lister will give a great demonstration of the results arrived at, and the most recent methods made use of in this ever expanding subject. This cannot fail to have a great practical interest to many who wish to have an opportunity of seeing and judging for themselves in a matter which has assumed so prominent a place in modern scientific surgery. Of course, in all forms of entertainment which take place in Scotland, there is one element of uncertainty to be taken into consideration; namely, the weather; but even the vagaries of the clerk of the weather-office are to be anticipated to a certain extent by providing alternative entertainments under cover, should those intended to be held *sub Jove* be prevented by a frowning sky.

The Executive Committee met on Wednesday last for the first time. The names of several influential non-medical citizens were added to the list. Well organised committees were appointed, as well as working secretaries and treasurers. The Lord-Provost of Edinburgh was nominated Chairman of the Entertainment Committee. Promises of support were received from many important sources.

THE ROYAL COLLEGE OF SURGEONS AND THE CONJOINT SCHEME.

We were enabled to state last week, that the College of Surgeons had agreed to a report on the subject of the Conjoint Scheme of examination. This report is as follows:

"The committee beg to report to the Council that counsel are of opinion that, in order to enable the College of Surgeons to co-operate with the College of Physicians for the purpose of holding a joint examination, and making such examination requisite for persons desiring to become members of the College, it would be necessary for them to obtain either an Act of Parliament or a new charter; and that the committee are of opinion that it will be better for the Council to take the necessary steps for procuring an Enabling Act of Parliament, giving the College full power to take part in a conjoint scheme, on such terms as the Council, for the time being, shall think fit."

We are also informed that, at the meeting on the 7th inst., a committee was appointed to prepare an Enabling Act, with the aid of counsel, and to take steps to endeavour to procure the passing of such a measure through Parliament in the ensuing session.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

General Sanitary Condition.—Sanitary Reform.—Mr. Chamberlain to the Fore.—Dr. Bond on Disinfection.—Contagious Diseases Acts.—General Hospital Portrait Gallery.—Queen's Hospital.—Cases of Interest.

The general sanitary condition of the town is still bad, owing to the prevalence of scarlatina and variola. Of the latter, there were thirty-seven new cases reported last week. But there are signs of public awakening to the fact, that overcrowding, bad drainage, and badly built houses, are at the root of much disease, epidemic as well as ordinary. An emphatic letter from a clergyman, the Rev. Mr. Pollock, published in, and supported by, the *Daily Post*, describing the fatal defects in the homes of the poor, and the necessity for a hospital for infectious diseases, may be credited with stimulating an earnest desire to find some remedy.

Sanitary matters have been made a crucial point at recent municipal elections, and the advanced and reforming party have gained a decided majority in our Town Council. The Sanitary Committee, re-organised, are to meet weekly, and give personal supervision to their districts and inspectors; to make a "sanitary census", and really enforce all powers conferred by the Sanitary Acts. If necessary, they will, we presume, as at Glasgow and Leeds, ask for additional power from Parliament. Already they have brought forward some excellent amended bye-laws as to building, ventilation, etc., and have decided on opening wards for infectious febrile diseases, other than small-pox.

In this good work, our able and energetic Mayor, Mr. Chamberlain, is a moving spirit. He has taken the initiative in inviting a Sanitary Reform Conference to meet here next month (January 14th), and has proceeded in such a manner as to secure cordial co-operation from every quarter, and a prospect of some real result. The condition of Birmingham, Manchester, Liverpool, and Bristol, will be discussed, also the questions of water-supply and isolation. Recent improvements in Glasgow and London will be brought forward, and Bailie Morrison and Sir S. Waterlow have promised to attend. We know no public man who has so well grasped the urgent necessity for, and the general principles of, sanitary legislation, as Mr. Chamberlain; nor any one so thoroughly competent to take the lead in this matter. I have in previous letters referred to his writings, and he has recently delivered a masterly speech on the relations of the water-supply to the public health, and the desirability of the supply being in the hands of the Corporation, and has so carried with him the whole of the Town Council as to secure an *unanimous* vote on this most important matter; and the consequence of this vote will be, that this week a Bill upon the subject will be "deposited in Parliament". It has been in negotiation, with intervals, since 1851.

There is much fever in several smaller towns in this district, notably, Sedgley and Rowley; and Dr. Ballard has reported in strong terms on their condition in a sanitary point of view.

In connection with the Midland Medical Society, Dr. Bond of Gloucester lately gave an able lecture on the "Conditions of Efficient Disinfection". He held, that the infection of disease was conveyed by material particles of albuminoid character; therefore, a true disinfectant must coagulate albumen; moreover, it must be soluble, a deodoriser, must evolve ozone slowly, neutralise ammonia, and decompose sulphuretted hydrogen. Such combined qualities were not in carbolic powders, solution of permanganates, or chlorine, but were united in a substance discovered by the lecturer, and named by him "cupralum", a mixture of cupric dichromate, and aluminic sulphate, with terebene.

The annual meeting of the Electoral Union for the Repeal of the Contagious Diseases Acts was held here last week. Mr. Stansfeld spoke, also Mrs. Butler, and other well known advocates; also Dr. Birkbeck Nevins, whose pamphlet, recently criticised in your columns, was largely quoted. This movement has lately gained converts of importance here.

An influential meeting has been held at the General Hospital, on occasion of the presentation of the portrait of Mr. Sharp, for many years Chairman of Committee. The portraits of Dr. Evans and Mr. Crompton were presented some time ago, and with every year the hospital gallery becomes more interesting and valuable.

The Hospital Sunday collection this year was for the General Hospital. It amounted to more than £5000.

For the "debt fund" at the Queen's Hospital, almost the whole of the £8000 required has been obtained within the last six months, and this without any "bazaar" or such like; though not, indeed, without much personal labour of many. Dr. Heslop's energy and influence, not to say generosity, have had much to do with this success.

Amongst recent cases of professional interest, Mr. Bartleet has tapped the pericardium, in a case of acute rheumatism, under Dr. Russell's care. The prominent symptom was urgent dyspnœa. Fourteen ounces of fluid were removed, and the patient did well. Mr. West has applied Carden's mode to amputation at the elbow-joint, in two cases, that show useful stumps. Mr. Jordan has had a case of epithelioma of the tongue, and has removed nearly the whole of the organ by the *écraseur;* the man can make his words understood and can swallow, though with some trouble. Amongst Dr. Heslop's patients, is a young man, with cerebro-spinal sclerosis, characterised by general trembling on any attempt at voluntary motion. The case is a very unusual one, and will, we believe, be published in detail. In Mr. Gamgee's *clinique*, we observed a case of traumatic aneurism, which illustrates well the value of digital pressure. The aneurism formed at the back of the hand, between the thumb and forefinger, within a few hours of an injury. Pressure was applied in all ordinary forms for several days; pads, bandages, flexions, splints; and finally, an acupressure-needle was passed under on the distal side; yet, after an interval, pulsation returned. Digital pressure was then applied to the radial only, by relays of assistants for eighteen hours, with success.

The names of Dr. Bell Fletcher and of Dr. Heslop have been placed on the Commission of the Peace for the Borough of Birmingham. This recognition of the medical profession, in the distribution of local honours, has given much satisfaction both to the public and to the profession.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The Purification of the Clyde.—Success of the Western Infirmary.—The Prevention of Infectious Disease.

The purification of the River Clyde is a question which has for some time attracted considerable attention, and it seems now in a fair way to solution, though the period of that solution must be still distant. We have a Lord-Provost just elected to the seat of chief magistrate, who stands in a manner committed to this work during his reign of three years; and, within the last few days, it has been announced that Sir John Hawkshaw has been appointed a Royal Commissioner to inquire into the best mode of carrying out the object in view. The work is no small one; for it is well known that, in addition to the sewage of Glasgow and a group of burghs around it, the Clyde is polluted by the refuse from a multitude of public works along its banks for many miles above Glasgow. This latter may be the least part of the difficulty, but it cannot be denied that the mode of disposal of the sewage will be no easy matter to settle. The public of Glasgow are thoroughly awakened to the necessity of something being done, and they will look with great expectations to the result of Sir John Hawkshaw's investigations.

After a month's trial, the new Western Infirmary may safely be said to be a great success, so far as internal arrangements and supply of patients are concerned. It has obviously supplied two great wants. In the first place, the number of patients seeking admission is such as to show that the hospital has not been opened a day too soon. It has also, we think, proved that the connection of the hospital with the University has not been, in the eyes of the working classes, any objection to it as a public institution. It had been thought by some that a feeling might exist against a hospital whose medical officers were all "professors" in the University, on account of the popular aversion to being experimented on. It is now clear that no such feeling has any appreciable existence, and, doubtless, the rational view, that men who have attained a distinguished position in a school of medicine are most likely to have the best knowledge of disease, has prevailed. The opening of the new hospital is also, we believe, likely to have a good effect on the Medical School. The classes this year are, we are informed, larger than ever, and there seems no reason to doubt that the close connection between the two institutions will cause the Medical School of Glasgow University to shoot rapidly ahead. If once the Western Infirmary were finished according to the original plan—that is, by the addition of two hundred beds—the impetus to the School would be still greater.

Two small tracts have recently been issued from the Sanitary Office of Glasgow, which seem to us calculated to be of great service in the enlightenment of the working classes in matters which nearly concern them. It may be stated here that the thoroughly sensible and practical, but unostentatious, manner in which the medical officer of health is conducting the work of that department is surely gaining for him the esteem and confidence of the entire community. In these tracts, which are intended for general distribution throughout the populous parts of the city, Dr. Russell endeavours to instruct the people as to matters of precaution which lie within their own power. They are suggested by the prevalence in the city of scarlet fever, and one of them is entitled *Hints about the Prevention of Scarlet Fever*. Under the two divisions of *Isolation* and *Disinfection*, directions are given how to prevent the spread of the disease. The other tract gives a sketch of *The Law about Infectious Diseases*, and lays down in clear terms the various infringements which lay persons open to the penalties of the law. It is rare that recourse to the law is made in Glasgow in this matter, and this itself says much for the judicious manner in which the thing is managed at the Sanitary Office. The issue of this tract, by showing the powers possessed, will probably be of service in reconciling people to the necessary precautions.

ASSOCIATION INTELLIGENCE.

BORDER COUNTIES BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at Dumfries on Friday, October 30th. Previously to the commencement of the ordinary proceedings of the meeting, the members visited the Crichton Royal Institution and the Southern Counties Asylum, and were entertained at a *déjeûner* by Dr. Gilchrist. They subsequently assembled in the Board Room of the Dumfries and Galloway Royal Infirmary; Dr. GREEN of Kendal presided, and there were present twenty-five members and six visitors.

New Members.—The following members of the Association were elected members of the Branch:—W. Marshall, M.D., J. Smith, M.D., W. Scott, M.D., and W. S. Kerr, M.D., all of Dumfries. The following gentlemen were elected members of the Association and Branch:—A. D. Barrie, M.B. Dumfries; W. A. F. Browne, M.D., Dumfries; T. Logan, M.D., Penpont; J. L. Milligan, M.D., Hayfield; and J. L. Ffoulkes, L.R.C.P.Ed., Patterdale.

Election of Office-bearers.—It having been agreed that the office-bearers should be elected by nomination, it was moved by Dr. TIFFEN, seconded by Mr. SYME, and unanimously agreed to—"That Dr. W. A. F. Browne be the President-elect". Dr. Barnes of Carlisle and Dr. J. Smith of Dumfries were elected Secretaries; and the following gentlemen were elected the Council for the ensuing year, on the motion of Dr. MCGREGOR, seconded by Dr. W. A. F. BROWNE, viz.: Dr. I'Anson, Whitehaven; Dr. Taylor, Penrith; Dr. Dodgson, Cockermouth; Dr. Campbell, Garlands; Dr. Maclaren, Carlisle; Dr. Scott, Dumfries; Dr. Bruce, Dumfries; Dr. Tiffen, Wigton; Dr. Gilchrist, Dumfries.

Papers.—The following papers were read.

1. *Pathology of the Brain.*—Dr. CLOUSTON, of the Edinburgh Royal Asylum, Vice-President of the Branch, read a paper on Recent Advances in Cerebral Pathology, which was illustrated by a large number of drawings. He referred to Hughlings Jackson's and Ferrier's researches and hypotheses in regard to convulsions, contending that by means of them we were able to form a better conception of true epilepsy. He next described the various *progressive* degenerations of nerve-tissue, on which much light had been thrown in late years, *e.g.*, the various forms of so-called brain-sclerosis, locomotor ataxy, general paralysis, and optic neuritis. Tumours and syphilis of the brain, and the observations of Laycock as to thermal and trophic neuroses were also touched on. The recent observations of Westphal, Meynert, Lockhart Clarke, Rindfleisch, Rutherford, Tuke, Kesteven, Dickson, and Major as to the pathological changes found in the brain in insanity, were described and illustrated. Dr. Clouston contended that we were at present in the position of having more facts than hypotheses in regard to the pathology of the brain, a sound and safe condition. He then propounded a theory as to the essential pathological nature of an ordinary case of recent acute maniacal excitement, expressing the opinion that in such a case the origin of the process was in the brain-cells, which, from an inherited or acquired weakness in their power of nutrition, lost the power of absorbing from the blood their proper pabulum; that this process was accompanied by congestion of the capillaries; and ultimately then paralysis or stasis of the blood-current, and an adherence of the white corpuscle to the inside of the vessels. He said that in the so-called typhoid cases of acute mania he had found masses of white organised corpuscles and fibrin in the vessels of the brain quite distinctly from the *post mortem* white clots. He contended that in the cases that become demented afterwards there is a process of atrophy of the brain-tissue. He showed the different effect the congestion had on the bone and membranes from its effect on the brain-tissue, attributing this to the former being secondary and accidental, while the latter was an essential part of the process. It was his opinion that the pathological process in acute maniacal excitement is very analogous to acute inflammation, but at the same time different from it.

2. *Fæcal Fistula.*—Dr. MACLAREN of Carlisle read notes of the case of a woman, aged 74, who had for thirty-seven years a fæcal fistula, which followed an operation for strangulated femoral hernia of the right side. In 1862, she was admitted a patient to the Cumberland Infirmary with a strangulated piece of bowel protruding through this fistula; this was removed by Mr. Brown, and she recovered with the fistula patent, but passing the most of the contents of her bowel *per anum*. Six weeks ago, the bowel again prolapsed through the fistula, and twenty-four hours afterwards she was seen by Dr. Maclaren in consultation with Dr. Rigg of Burgh. The protrusion was four inches long; it consisted of invaginated ileum, the outer part of which was gangrenous, the inner healthy. Dr. Maclaren enlarged the fistula, reduced the healthy bowel, and sewed the end to the wound; the gangrenous part slit up was left outside and sloughed way. The patient, though still weak, had recovered. All fæces passed by the fistula, the edges of which were not yet quite healed.

3. *Exostosis of the Femur: Removal.*—Dr. MACLAREN also described the case of a young woman, aged 17, admitted to the Cumberland Infirmary on May 6th, 1874. She had an exostosis of the lower end of the femur at the inner side close to the knee-joint. It gave rise to much pain when she walked, and rendered her unfit for work. It was removed by incision through the soft parts, and dividing its base with the chain saw. The wound was dressed antiseptically and kept aseptic. In a fortnight, the deep wound was healed. A month after the operation, as only two small ulcers were left at each end of the wound, water-dressing was used. During the following six weeks, these showed no signs of healing, though several varieties of treatment were used. Antiseptic dressings were resumed, and she was discharged well in a fortnight. From the sixth day after the operation, her temperature was normal. The tumour, a cast of which was exhibited, was composed of cancellated bony structure, partly covered with cartilage, and containing much fat; it measured two inches in the long by an inch and a half in the short diameter. Dr. Maclaren remarked that the removal of exostoses had a very high mortality from the frequent occurrence of diffuse suppuration, erysipelas, and pyæmia, and he attributed the satisfactory progress of this case to the fact that the wound was kept aseptic. He also pointed out that such exostoses had not so broad a base as might be supposed from external examination. In this case, though the mass felt almost sessile, the attachment only measured half an inch by three-quarters of an inch, but the tumour curved downwards, so as to lie almost in contact with the femur for double that distance. If the treatment by fracture proposed by Dr. Chiene should prove successful, the idea that any exostosis had a too broad attachment need not deter the surgeon from attempting it.

4. *Cases of Melancholia.*—Dr. CAMPBELL of Carlisle read an account of two cases of melancholia presenting similar mental manifestations, evidently the result of visceral lesion. The patients were brothers. The mental symptoms were identical in both cases, viz., great depression, suicidal longings, feelings of abdominal discomfort, and a persistent belief that the bowels were never moved. At the *post mortem* examination, in the one case, the bile-duct was found occluded, the pancreas had

a separate duct opening into the duodenum. In the other case, there was found a stricture of large intestine two inches above sigmoid flexure. The stricture was six-tenths of an inch in diameter, while two inches above the stricture the gut was two inches in diameter. Dr. Campbell remarked that hereditary predisposition might be an element in those cases, though not traceable. The age of the patients (between 60 and 70) rendered them more likely to be affected mentally by their physical state. He considered the effect of the lesions in each case ample to account for the mental state. Probably the stricture was the result of a dysenteric ulcer, and the occluded bile-duct the result of former inflammatory mischief, but he was unable to obtain a history of the patient's former health. (A portion of gut with the stricture was exhibited.)

5. *Intestinal Concretion.*—Dr. W. S. KERR (Dumfries) exhibited a specimen of intestinal concretion formed of the beards of oats.

Short discussions followed the reading of the papers; and, owing to want of time, a paper on Artificial Alimentation by Dr. W. A. F. BROWNE was deferred until next meeting.

A Vote of Thanks to the Directors of the Dumfries and Galloway Royal Infirmary terminated the proceedings at the ordinary meeting; and the members and their friends afterwards dined together at the King's Arms Hotel. Dr. Green of Kendal occupied the chair, and Dr. Bruce of Dumfries acted as *croupier.*

CORRESPONDENCE.

DR. NEVINS AND THE CONTAGIOUS DISEASES ACTS.

SIR,—I had no opportunity until to-day of reading Dr. Nevins's "statement" why he opposes the Contagious Diseases Acts. I find he lays great stress on the fact, that in the Army the admissions from primary syphilis and from gonorrhœa had commenced to fall before the Acts were passed; he attributes this result to sanitary improvements, establishment of libraries, cultivation of useful pursuits, and greater personal cleanliness. And he thinks that "these improved sanitary arrangements", and the continuous improvement they produce, "are uniformly ignored by the supporters of the Acts". It is no doubt the case that a large decline in venereal diseases in the Army occurred in the years before the Acts came into force; and Dr. Balfour, who was of course well aware of this fact, told me that it made him cautious in judging of the operation of the Acts. But the explanation is not that which Dr. Nevins gives, but is to be found, chiefly at any rate, in another direction. The fullest and best statistics to use in examining this point are those given by Dr. Balfour in the yearly Army Medical Department Reports under the head of "Appendix No. 1; abstract showing the admissions into hospital, and deaths among the troops serving in the United Kingdom". This abstract gives also the mean yearly strength of all the troops furnishing the admissions into the military hospitals. From it I have compiled the following table.

Troops in United Kingdom.

		Total Admissions.		Admissions per 1,000 of Strength.	
Years.	Mean Strength.	Primary Syphilis.	Gonorrhœa.	Primary Syphilis.	Gonorrhœa.
1859	71,706	10,898	10,713	152.0	149.4
1860	83,386	10,907	10,424	130.6	125
1861	81,500	9,712	9,100	119	111.6
1862	76,029	7,771	9,117	102.3	119.8
1863	70,819	7,131	7,554	100.7	106.6
1864	63,153	5,720	6,529	90.6	103.4
1865	62,911	5,350	6,483	85.5	103
1866	59,758	4,693	5,882	78	98.4
1867	62,901	5,444	7,290	86.5	115.9
1868	68,350	5,476	7,996	80.1	117
1869	68,962	5,429	7,111	78.5	103
1870	70,131	4,805	6,476	68.5	92.3
1871	87,142	5,183	9,183	59.4	105.4
1872	85,722	5,910	8,465	68.9	99

If the reader will now glance down the column of mean strength until the year 1866, he will see that the Army was constantly declining in numbers; and, if he will look at the adjacent columns, he will observe that the admissions from both primary syphilis and gonorrhœa also fell, but in a greater ratio than the strength. The parallelism of the figures shows that there must be a connection between the numbers of men and the venereal admissions; but the ratios also show that the relation is not a merely numerical one.

The table at once suggests the real explanation, which I believe to be this. When our Army is ordered to be reduced in numbers, as was the case in the year 1862 and afterwards, both fewer recruits are taken and more men are discharged. I do not know the number of recruits in 1859, but in 1860 nearly 21,000 recruits passed the medical inspection, and in 1861 nearly 7,000; while in 1862 only 4,603 passed inspection, and in the next four years 35,000 passed inspection, or a mean of 8,800 per year. Now, recruits always furnish an undue proportion of venereal cases; up to a recent date, they enlisted on bounty, and therefore had money at command, and they are always placed in a position of unusual temptation. At some stations, as at Woolwich, it has been supposed in former years that hardly any recruit escaped an attack of either syphilis or gonorrhœa in his first year. It is certain indeed that, other conditions being equal, when an army recruits largely, its venereal rate will rise, and, when it lessens recruiting, the venereal rate will fall.

But an army lessening in numbers, as ours did from 1860 to 1866, gets rid of men by discharge, and commanding officers will always take the opportunity of getting rid of the idle, dissolute, drunken men who furnish so large a share of venereal cases. The men who are retained are therefore more largely men of steady good conduct, and hence another reason why the venereal rate lessens when an army is lowering its numbers.

Such seem to me the great causes, perhaps the only one, of the facts which have made such an impression on Dr. Nevins. The history of venereal admissions after 1866 seems to prove it. In 1867, the rate of decrease in venereal admissions was checked, and the rate rose, again, however, subsequently to fall to a point so low, that in 1871 the primary syphilis admissions were two and a half times less than in 1859. This transient rise of admission occurred about the same time as the Acts began to work, and is used by Dr. Nevins as an argument to prove their failure.

Now, in 1867, recruiting became more active, in consequence of the German war, and in that year nearly 12,000 recruits passed inspection; hence I believe the check in the rate of fall. But, if so, why was not this rise in the venereal rate maintained, as in subsequent years, especially in 1870 and 1871, recruiting was large, and as the Army was also augmented by men brought home from the colonies? Of two things, we must choose one—either the explanation of the previous decrease is erroneous, or a fresh modifying condition must have come into play. Before surrendering the explanation, let us see if any influence can be assigned to a modifying condition; viz., the influence of the Contagious Diseases Acts, which, commencing on a very small scale in 1865, gradually affected more and more men in the Army, until, in 1870, it was acting to the fullest extent the law allows. To test this condition, we have most careful figures by Dr. Balfour, to whom Dr. Nevins does much injustice. In his evidence before the Royal Commission, Dr. Balfour explained his method, and his tables are given there fully, as well as in the *Army Medical Department Reports.* He shows, it seems to me without a flaw, that, taking all the troops who were not influenced by the Acts, the venereal rate increased after 1866, while among the troops who were influenced by the Acts the rate declined. I do not want to weary your readers with statistics, but a portion of the table given at page 811 of the second volume of the Royal Commission Report will show what I mean. I have added the years 1871 and 1872 to it.

ADMISSIONS OF PRIMARY SYPHILIS PER 1,000 OF STRENGTH.

Years.	At Stations not under Acts.	At Stations under Acts.
1864	108.6	
1865	99.9	120[*]
1866	90.9	90.5
1867	108	86.3
1868	106.7	72.1
1869	111.9	60.9
1870	111.3	54.5
1871	94	51
1872	123	54

As in the former table, the admission ratio is seen to fall in the year 1866 in the unprotected stations, and then to rise in and after 1867; while, in the stations where men were brought under the influence of the Acts, the fall continued, until, as the number of these stations increased, it gradually lowered the venereal rate of the Army at large, as shown in the first table.

I cannot conceive any demonstration more complete than the rise in the venereal rate, which might have been anticipated, as the Army was augmented in numbers after 1866, was really stopped by the operation of the Acts on a certain proportion of the men, than is given by Dr. Balfour's figures. I can see no escape from them, and I venture to think that, if the decline in venereal admissions before the Acts is to be accounted for as I suppose (and of this I have no doubt), then the difficulty in interpreting the figures which has been felt by Dr. Nevins disappears, and he will see that the facts all fall into their proper places, and are easily explained by reference to the action of simple and intelligible causes.—I am, etc.,

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[*] In this case, the Acts were applied very imperfectly, and only to a small body of men.

Netley, December 11th, 1874. E. A. Parkes, M.D.

THE UNIVERSITY OF LONDON: DEGREES IN PUBLIC HEALTH.

Sir,—Is it not high time that the University of London—an institution which, of all our universities, especially claims to keep pace with the age—should consider the advisability of granting degrees in State Medicine—a course in which Dublin has led the way, and Edinburgh and Cambridge are preparing to follow? These universities require residence, and, with the exception of Edinburgh, do not admit London graduates *ad eundem;* so that the holder of a public appointment who does not happen to be a graduate of one of those universities is practically debarred from obtaining a degree in Public Health. Besides this, I imagine that most London graduates would prefer obtaining a degree at their own university to going elsewhere for it. Many of the most eminent medical officers of health possess London degrees. At one recent election to a combined district, no fewer than five of the selected candidates were gold medallists of that university; and I feel sure that many who now hold such appointments, and many more who may at a future time seek to obtain similar offices, would gladly avail themselves of a test of their special qualifications in hygienic science. At present, the road to the office of medical officer of health to a large district is usually a course of testimonial-hunting and canvassing derogatory to science and humiliating to a man of refined feelings. Of course, in some instances, "kissing goes by favour"; but, in many cases, the Boards in whose hands such appointments lie are really anxious to select the best man, and the possession of a degree of the kind would be a surer guarantee of the necessary knowledge than almost any number of flattering testimonials. I trust that the subject may be brought forward at the next meeting of Convocation on January 19th by some abler and more influential member than Yours, etc.,

H. Franklin Parsons, M.D., Medical Officer of Health, Goole and Selby.

Goole, Dec. 8th, 1874.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 8th, 1874.

C. J. B. Williams, M.D., F.R.S., President, in the Chair.

ON THE LARYNGEAL SYMPTOMS WHICH RESULT FROM THE PRESSURE OF ANEURISMAL AND OTHER TUMOURS ON THE VAGUS AND RECURRENT NERVES. BY GEORGE JOHNSON, M.D., F.R.S.

The main object of the paper was to demonstrate and explain the fact that bilateral spasm and bilateral palsy of the larynx may result from the pressure of an aneurism or other tumour on the vagus nerve of one side only. Reference was made to two cases of aneurism; one of the innominate artery published by Dr. Bäumler, in the 23rd volume of the *Pathological Transactions;* the other of the aorta, by the author, in the 24th volume of the same *Transactions.* In both these cases, the fact of bilateral palsy of the larynx was ascertained by laryngoscopic examination during life. In both, the *post mortem* examination was made with the expectation of finding that the recurrent nerve on both sides was injured. In both, it was found that the vagus and recurrent on one side only had been compressed by an aneurism. In both cases, the laryngeal muscles on both sides had undergone atrophic changes. In both cases, the aneurism had compressed not only the recurrent nerve, but also the trunk of the vagus, and it was believed that, while the laryngeal muscles on one side were paralysed by direct pressure on the recurrent, the paralysis on the opposite side was the result of a centripetal irritation of the vagus acting on the nervous centre, and through it upon the nerve supply to the laryngeal muscles on the other side. The palsy on one side was direct; on the other, reflex. The muscles of the larynx are in a pre-eminent degree bilateral in their action. This bilateral action, according to Dr. Broadbent's hypothesis, is associated with a close connection between the nerve-nuclei of the two sides; and Dr. Lockhart Clarke (in the *Philosophical Transactions,* 1868, Part 1) has demonstrated three sets of decussating fibres connecting the nerve-nuclei of the spinal accessory nerves. The motor fibres of the laryngeal branches of the vagus being derived from the spinal accessory, the intimate union of their nuclei of origin explains the bilateral action of the laryngeal muscles. The commissural union of the nerve-nuclei of bilaterally acting muscles explains certain pathological facts. 1. These muscles are not paralysed in cases of hemiplegia from lesion of one hemisphere of the brain. 2. In cases of unilateral spasm (hemispasm), the bilaterally acting muscles are implicated in the spasm; the normal motor force in the first cases, the abnormal in the second, passes from the commissural centre to the nerves and muscles on both sides. 3. If the nerve-nuclei and their connecting fibres become diseased, bilateral palsy will result. Pressure on one recurrent nerve, which is an efferent motor nerve, will cause direct unilateral palsy of the larynx, but cannot cause either bilateral spasm or bilateral palsy. Pressure on the trunk of the vagus involving its efferent fibres may cause both bilateral spasm and bilateral palsy of the larynx. Reference was made to some experiments performed by Dr. Rutherford on rabbits. A portion of the anterior wall of the trachea was cut away, so as to expose the glottis from below. The superior laryngeal nerve was divided, and its central end faradised; this caused strong bilateral spasm of the glottis. An impression conveyed by the incident nerve to the centre was reflected through the efferent nerves to the muscles on both sides. This illustrated the mechanism of bilateral spasm from unilateral irritation. The principle was the same, whether the morbid motor influence pass downwards from one hemisphere of the brain or upwards from one afferent nerve to the common centre of the two pneumogastric trunks. When the recurrent nerve was divided and its lower end faradised, or when the lower end of the divided vagus was galvanised, the result was unilateral abduction of the vocal cord in consequence of the stimulus acting on the efferent fibres of the recurrent. The results of these experiments were essentially the same as those which had been previously obtained by others, in particular by Rosenthal *(Die Athembewegungen,* Berlin, 1862), and by Waller and Prevost *(Archives de Physiologie,* tome iii, 1870). The long continued irritation of the trunk of the vagus by the pressure of an aneurism cannot be imitated by any artificial means; but the general result of these experiments is to support the theory that continuous irritation of the trunk of one vagus may through its afferent fibres so disturb the common centre of the two vagi as to cause either bilateral spasm or bilateral palsy of the larynx. Reference was made to facts illustrating the influence of a peripheral irritation in exciting, through a reflex nervous influence pathological changes in distant parts. In causes of traumatic tetanus, a peripheral irritation may not only excite a general muscular spasm, but also serious structural changes in the spinal cord. A foreign body in a wound on the cheek excited facial neuralgia, facial palsy, and trismus. The passage of a calculus through the ureter may excite not only pain but inflammation in the testicle. Irritation of one eye by overwork at the microscope or by a foreign body may set up a reflex inflammation in the other eye. The more intimate the nervous connection between two parts, the greater is the probability that disease in one may excite disease in the other. How great, then, is the likelihood that irritation of the trunk of one vagus will gradually excite functional disturbance and even structural change in the nervous centre, and in the associated nerve on the opposite side. Pressure on one recurrent nerve would never cause serious dyspnœa, but pressure on the trunk of one vagus, by exciting either bilateral spasm or bilateral palsy of the larynx, is a frequent cause of urgent and even fatal dyspnœa. The dyspnœa, which is the result of laryngeal spasm, occurs in paroxysms; it comes on and passes off with equal suddenness, while the stridor and dyspnœa, which result from laryngeal palsy, come on more gradually, and are more persistent. The laryngoscope is essential for the exact diagnosis of those painfully interesting cases. Reference was made to the case of a young man, who died in a paroxysm of laryngeal obstruction from what was supposed to be acute laryngitis. The case occurred long before the laryngoscope had been invented. After death, the larynx was found healthy, but a cancerous tumour in the chest had implicated the left vagus and recurrent nerve. In another case, hoarseness, cough, and stridor were at first supposed to depend on laryngitis, but the laryngoscope showed a healthy larynx. An aneurism was suspected, and soon caused death by hæmorrhage into the œsophagus. The aneurism (of the aorta) had compressed the left vagus and recurrent. With reference to the question of tracheotomy, the main point is to distinguish between laryngeal palsy or spasm, the result of pressure on the vagus, and narrowing of the trachea by the direct pressure of an aneurism. In the first class of cases, tracheotomy may afford great temporary relief, while in the second the operation would be worse than useless. It was found that when a rabbit was under the influence of chloroform, no laryngeal spasm was excited even by faradising the central end of the superior laryngeal nerve. This result is analogous to the influence of chloral hydrate in preventing or lessening laryngeal spasm. In the course of the experiments upon rabbits, it was found that, after division of the superior and inferior laryngeal nerves on both sides, the animal closed the glottis during the act of deglutition. Dr. Rutherford suggested that this closure of the glottis might be effected by constrictors of the pharynx; and, after dividing the constrictors on one side so as to suspend their action, the glottis remained quite motionless. It appears that during the act of deglutition the pharyngeal constrictors have the power of pressing together the arytænoid cartilages, and thus closing the glottis. This experiment is confirmatory of Longet's observations made in the year 1841 (*Archives Générales de Médecine*, tome xii, 1841).

Dr. DOUGLAS POWELL observed, with reference to bilateral spasm from unilateral nerve irritation, that Dr. J. Reid many years ago had obtained symmetrical spasm of the glottis on subjecting one recurrent nerve of a larynx recently removed from a dog to prolonged contact with the galvanic forceps; and that M. Krishaber had remarked that the arytenoideus—the only single muscle of the larynx—would contract equally if either one or both nerves were irritated. The contraction of this muscle with those of one side of the larynx might serve to close the glottis. Dr. Powell had, however, so far as he could remember, in his experiments on a dog, obtained results similar to those of Dr. G. Johnson and others. He wished, however, to draw attention to the fact that the same phenomena were not observed in experiments upon different animals. In a series of experiments which he had commenced last summer, he had found that in the cat, instead of closure, powerful abduction of the cords was obtained on galvanising the recurrents; and he thought it very important that we should ascertain which animal man resembled as regards the innervation of the larynx, in order to understand better the mechanism of nervous dyspnœa in aneurism. If man resembled the dog or the rabbit in this respect, he might have spasm of the glottis as the result of irritation of the recurrent nerve; but if he resembled the cat, the so-called spasmodic dyspnœa, when of purely nervous production, was really due to paralysis. And it was even possible that a ready means of relief might be found in galvanism; for nothing could be more striking than the instant relief afforded to the dyspnœa in the cat when the divided recurrents were galvanised. The animal being under the influence of chloral, with the larynx exposed from above, the right recurrent was firmly ligatured. At the moment of ligature respiration was greatly disturbed; evident great dyspnœa. The right cord was paralysed, sucked inwards towards the middle line, and downwards with each inspiration. The movements of the left cord were as before. On faradising the divided nerve (very feeble current), the right arytenoid cartilage was strongly everted by rotation upon its base, which seemed approximated to that of the opposite side. The left cord was as before. After the first attack of dyspnœa, respiration became quieter, and some moments were continued without dyspnœa. The left recurrent nerve was now firmly ligatured. There were urgent dyspnœa, falling in of the chest, and bulging of the abdomen, with inspiration. The two cords were drawn together with inspiration; only a very small chink was left in front of the arytenoid cartilages, through which air entered, with slight sibilus. On now galvanising both nerves, the glottis was widely opened by eversion of both cartilages, and the dyspnœa at once ceased; it was greatly lessened by galvanising even one nerve. The experiment was repeated several times. Unfortunately, the actual dyspnœa paroxysm in aneurism could only rarely be witnessed by those who had most considered the subject; but, so far as it went, clinical observation was, Dr. Powell thought, decidedly in favour of such paroxysms, when of purely nervous origin, being due, not to spasm of the glottis, but to its closure from paralysis. Stridor and uni- or bilateral paralysis were the phenomena most commonly to be observed. Dr. Powell believed the mechanism of the dyspnœa in such cases to be either—(*a*) that, owing to sudden enlargement of the aneurism during eversion or effort, the increased pressure on the nerve rendered a partial paralysis complete, and a paroxysm of dyspnœa occurred from sucking together of the flaccid cords; or (*b*), as he had seen occur in cases in which the cords had been destroyed by ulcerative disease, so, when they were paralysed, effectual cough being impossible, mucus collected at the glottis and caused dyspnœa. And, moreover, we should not forget that—as was well seen in experimenting with animals—during any excitement of breathing the dyspnœa already present from paralysis of the cords would necessarily be increased. But he thought that attention had been too exclusively directed to the larynx in these cases, and that paroxysmal dyspnœa was, perhaps, more often due, as contended by Dr. Bristowe, to direct pressure upon the trachea; being produced either by sudden enlargement of the tumour during eversion, etc., or by the impaction of a plug of mucus at the narrowed portion. In the latter case, Dr. Powell conceived true spasmodic closure of the glottis might occur with the fruitless effort at cough excited by irritation of the mucous membrane.—Dr. SIBSON did not think we had yet arrived at a complete explanation of these phenomena, though the paper now read would greatly aid in the inquiry. One point must be kept in mind—the difference between pressure on the trachea and pressure upon the laryngeal nerves. The pressure of an aneurism of the transverse aorta on the front of the trachea produced the so-called stridor "from within"; and this varied with the fulness of the tumour, depending upon excitement, position, etc., whilst, by implication of the laryngeal nerves, secondary spasm or even a complete closure of the larynx might occur. There were cases of pressure on the recurrent laryngeal nerve which produced aphonia or hoarseness, and at times stridor. In aneurism of the descending aorta, we could study purely the effect of pressure upon the laryngeal nerves. Then there were cases of complete closure of the larynx from an irritation which was not yet quite explained, possibly of central origin, from any annoyance to the glottis, as a foreign body, etc. —Dr. BROADBENT said it had been clearly shown that pressure on one recurrent was sufficient to account for stridor; it could produce a broken voice, but not dyspnœa. He did not think it was satisfactorily explained how pressure on the vagus caused bilateral paralysis. The bilateral association of nerve-nuclei protected from paralysis. If there were a disintegration of the vagus at the seat of pressure, it might spread up to the nuclei of the vagus nerve; but then not only should there be bilateral paralysis, but also the other functions of the vagus should be impeded; and there was no evidence of this. If one vagus were cut, the heart, etc., was affected; but the other, remaining entire, soon took on the work of the two, and the functions of the heart and respiration were restored. In the two cases quoted, there was pressure upon the vagus and the recurrent. It would be interesting to know if pressure on the vagus alone would produce bilateral spasm.—Mr. NORTON said it was difficult to determine if there were bilateral paralysis; there was the appearance of it. If pressure on one recurrent nerve continued, the obstruction increased; and this looked like gradually increased paralysis of the other side, but there was infiltration of the muscles on that side, impairing their action.—Dr. J. POLLOCK asked if there were points of diagnosis enabling us to say that closure of the larynx was due to mechanical pressure, or to pressure on the vagus or recurrent. In early stages of partial paralysis, the stridor was due to nerve-implication, but, in later stages of severe dyspnœa, it was due to pressure on the trachea or on the nerve; so there is a mixed causation. It was important to know whether the larynx or the trachea was closed, with regard to the question of opening the trachea.—Dr. SYMES THOMPSON thought that the spinal cord and medulla should be examined in these cases; if this were done, we might ascertain if the paralysis depended on secondary or primary change.—The PRESIDENT agreed that Dr. Johnson had made an important contribution to our knowledge on an obscure subject, in tracing the nervous relations of aortic aneurisms, and in bringing the laryngoscope to his aid. Although admitting his conclusion, that pressure on the nerve of one side could affect the muscles of both sides of the larynx, Dr. Williams confessed that, with Dr. Broadbent, he failed to follow Dr. Johnson in his endeavour to explain all the varieties of spasm and aphonia through the nerves implicated. But, without attempting to explain everything, he thought much was intelligible through general views brought to bear on clinical experience. There is no muscular apparatus in the body so nicely adjusted as that of the larynx, or more readily thrown into spasmodic or irregular action by irritation, direct or remote. Thus, in choking from bulky or acrid matters in the pharynx, or from hysterical globus, in the general convulsion of infants in teething, or of epileptic fits, spasm of the glottis is the usual and most serious concomitant; and in the more violent fits of hooping and other convulsive coughs, its presence is the aggravating element. In laryngitis and œdema of the glottis, the most common and pressing danger is from supervening spasm. In laryngismus stridulus and thymic asthma, we have constriction of the glottis in fits, brought on by tumours in the neck pressing on the larynx or its nerves, in ways analogous to that of the pressure of aneurisms of the posterior face of the aortic arch. And, concerning this pressure, he had been in the habit of explaining its effects as different according to its degree, but all apt to produce fits of laryngeal dyspnœa. Pressure at first caused irritation of the excito-motor nerve (recurrent), resulting in spasm of the glottis from the predominant action of the constrictors, which are the strongest. Increased pressure impairs the nervous power, partially paralysing it; just as continued pressure on a sensitive nerve benumbs it. Now, this paralysing pressure cannot cause spasm of the glottis; yet, nevertheless, experience shows that it produces laryngeal dyspnœa in paroxysms like those of laryngitis or laryngismus stridulus. This it seems to do in the mode suggested forty years ago by Dr. Hugh Ley. In inspiration, the glottis is more widely opened by a muscular action, which is a regular part of this process; when the laryngeal muscles are weakened or paralysed, this opening power fails, and a forcible inspiration causes the sides of the glottis to close by atmospheric pressure, which stops the breath until the inspiratory effort ceases; and, unfortunately, this is prolonged by the feeling of want of breath. Thus, there is a prolonged struggle to draw in air, by which the glottis is only closed more firmly, and does not open until the inspiratory effort abates, when the stridulous indraught announces the partial re-opening of the glottis. So it is found that strong pressure on the walls of the chest to counteract the violent inspiratory struggle sometimes succeeds in opening the glottis and relieving the paroxysm. For the prevention of the fits, great tranquillity of body and mind, and the avoidance of all excitement and causes which can call for increased inspiratory efforts: chloroform, chloral, and similar tranquillising agents may be useful in warding off the attacks. In all these cases in which the pressure of aneurism on nerves, whether recurrent or vagus, produces closure or constriction of the glottis, whether spasmodic or paralytic, the characteristic physical sign is the stridor confined to the larynx, and heard loudest at that part. But there is another stridor lower down in the trachea, when an aneurism presses much on the trachea itself. This was alluded to by Dr. Sibson as having been described by Dr. Stokes many years ago. Dr. Williams had on several occasions observed it, and had endeavoured to ascertain its nature and value as a physical sign. He had long ago shown that tubular sounds of breath and voice above a scapula form one of the earliest signs of aneurism of the arch; it occurred in the case of Liston the surgeon, and also in that of Earl St. Maur; but the tracheal stridor occurs later, and is different in character and seat. It accompanies the breathing, especially when hurried, and the cough, and is loudest at the root of the neck or below a clavicle on one side. It depends on pressure of the tumour on the trachea, and is an important sign, indicating that such cases are not likely to be effectually relieved by tracheotomy. Dr. Williams showed, by percussing his own trachea, or an India-rubber tube, how the sound is produced; and he remarked, in conclusion, that the diagnosis of aortic aneurism is not difficult where there is time and opportunity to carefully investigate the symptoms and history; but severe and rapid cases are generally perplexing as well as hopeless.—Dr. JOHNSON, in reply, said there must be some fallacy in Dr. Reid's experiment quoted by Dr. Powell; it did not agree with Dr. Powell's results on the cat, which were in accord with those of Dr. Rutherford. When the recurrent laryngeals were galvanised, all the muscles were stimulated, and the cords were drawn outwards; and he thought the stridor could alone be explained by spasm. He could not understand Dr. Broadbent's difficulty as to the explanation of bilateral palsy. If the connection between the nuclei can be found, it must be so. Then, it was said other functions of the vagus should be disturbed; and so they are—heart and lung complications do occur. Mr. Norton questioned if there was bilateral palsy; from the laryngeal examination, there was no doubt of it. The laryngoscope was of great value in diagnosing between laryngeal and tracheal obstruction.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 27TH, 1874.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

Nearly Fatal Poisoning by Chloral Hydrate.—Mr. HULKE read notes of the case. A young lady, aged 23, was supposed to have taken four ounces of syrup of hydrate of chloral; at all events, she was known to have had a bottle containing this amount in her possession a few hours previously, and the bottle was subsequently found to be empty. Within a very short period of taking the dose, when seen by Mr. Hulke, she was found to be perfectly insensible, breathing slowly and laboriously, almost stertorously; her face was dusky; her radial pulse small and very weak; and her pupils were extremely contracted. During the next five minutes (which was occupied in procuring a stomach-pump), her face became very purple, and her breathing so feeble, that it was feared to introduce the tube into the stomach, lest some possible pressure on the root of the tongue and epiglottis might extinguish life altogether. A few acts of Silvester's method of artificial respiration lessened her lividity; the stomach-pump was then introduced, and some warm water pumped in, which, upon being withdrawn, was thought to smell of chloral. During this proceeding, the patient again became livid; the use of the tube had consequently to be discontinued, and Silvester's method resorted to, when her colour speedily improved. The tube was then reintroduced, and a cup of very strong coffee injected into her stomach. A similar amount was also thrown up the rectum. The case now seemed hopeless, the radial pulse could scarcely be felt, and natural respiration could only be maintained by supplementing it at short intervals by the Silvester method. A few minutes after the injection of the coffee, a slight improvement was observed in the pulse, and respiration, which was maintained about forty minutes after being first seen, she slightly opened her eyes and spoke. Her first words were imperfectly articulated and unintelligible. In another half hour, she was so far improved, that her breathing was perfectly natural, and she was quite conscious. She suffered no further relapse, and recovered entirely from the effects of the poison. She had since become insane.

Mr. P. THORNTON related particulars of a case of delirium tremens, in which eight drachms of chloral hydrate were administered within thirty-three hours and a half. The delirium was not relieved; on the contrary, the patient recovered as soon as the chloral was stopped.—Dr. FARQUHARSON said that records of cases of chloral poisoning were interesting, now that "chloral-eating" was common. The symptoms of an overdose of chloral varied in different cases. Sometimes the heart was immediately acted on, faintness being a symptom; at other times, the effect was more upon the pneumogastric nerve. It was a question whether these differences were to be referred to idiosyncrasy or to the quality of the drug—that is, to impurities. Chloral was often impure, and Liebreich had said that the administration of it in this condition was the cause of the preliminary intoxication sometimes observed after its exhibition. Liebreich had also observed that chloral acted badly in gout, because the alkalinity of blood necessary for its decomposition was not present in that disease. Dr. Farquharson himself had found that in acute rheumatism large doses of chloral had not only not done good, but had even caused delirium. As for the dose of chloral which might be given, he had used as much as six drachms a day in neuralgia.—Dr. RHYS WILLIAMS said that in Bethlehem Hospital the results of the use of chloral had been rather unfavourable. As regards large doses, he had given in one case of chronic insanity as much as two drachms every four hours, and that without either relieving the symptoms or inducing sleep.—Dr. GREENHOW remarked, in reference to the therapeutics of chloral, that in delirium tremens he had used it eight or nine times, and with the result that he was better satisfied with it than with any other drug he had tried. He administered ten grains every few hours until sleep supervened. In rheumatism, the theoretical objection to chloral was plausible; but, as a matter of fact, he had found chloral useful in the disease. Chloral hydrate was, however, very much like other drugs, uncertain; and his rule was to give it a fair trial, and, if the result were unsatisfactory, to try something else.—Mr. THORNTON inquired of Mr. Hulke whether there was any known antidote to hydrate of chloral. Was strychnia, for example, such an antidote?—Dr. SOUTHEY said that in the case just read it was not impossible that some other poison had been taken besides chloral. The symptoms were not unlike those of opium-poisoning. He had seen chloral given, without toxic effects, in thirty-grain doses every four hours.—Mr. BRUDENELL CARTER asked whether there really was sufficient evidence of diminished alkalinity of rheumatic blood. A gouty patient had told him that the discovery of chloral was to him a source of untold bliss and happiness.—Mr. HULKE replied that, in regard to an antidote, the effect of the administration of coffee was most encouraging. As to Dr. Southey's remarks about the possibility of opium having also been taken, he had himself such a suspicion when he saw the case; the face was, however, more flushed and excited than was generally seen in opium-poisoning. Dr. Greenhow and others had spoken of the uncertainty of chloral as a sedative; he could confirm this, but believed that it was due more to the peculiarity of the patient than to impurity of the drug. He had prescribed chloral from the same specimen to many cases of cancer simultaneously, and found the effects exceedingly different, but, perhaps, not more so than those of opium.

A doubtful Case of Cutaneous Disease.—Dr. ROBERT LEE exhibited the patient, a girl three years of age, as the exact nature of her malady was not agreed upon by many who had seen it. A sketch of the case by Dr. Westmacott was also handed round. The patient was admitted into the Hospital for Sick Children, Great Ormond Street, on October 22nd, was in good health, and was one of five children, whose family history was inquired into without affording any point of interest in the case. On the left side of her body, just below the margin of the left rib, was a fine convoluted line not more than the twelfth of an inch in diameter, and slightly elevated above the surface of the skin, which was twisted backwards and forwards upon itself within a space the size of the palm of the hand. The termination of the line was somewhat larger than the line itself. On close inspection, a dotted or catenated appearance was observable in it, which might lead to the supposition that it was a lymphatic vessel. There was vascular redness accompanying it, much like that which surrounds a small herpetic vesicle. In a considerable part of its length, the distinct characters specified could be detected; but it would be found that there were traces of the same condition on the back; and, if the drawing by Dr. Westmacott were examined, the representation which he had given three weeks before, when the right side was affected, would be found to correspond to that now seen on the left side. The fact was, that the mother had observed the commencement of the disease on the inner side of the right ankle three weeks before she had brought the child to the hospital. The line had travelled like a comet up the inner side of the right thigh, had turned across the right side of the abdomen, and, when first seen, very much resembled its present appearance, excepting in locality. It would sometimes progress at the rate of from half an inch to an inch in the twenty-four hours. It had passed back to the spine, and then forward again over the right side of the abdomen, back again to the spine, thence across to the left side. It was accompanied by very slight irritation. The surface had been examined, and the epidermis removed without result.

Mr. HULKE inquired how the line moved.—Dr. LEE replied that it moved like a comet, leaving a faint trace behind it.—Dr. MOXON, after examining the patient, said that it was a significant feature in the case that the child was the subject of factitious urticaria. With such a patient, one could trace upon the skin whatever lines one's ingenuity might suggest. He did not say that this was the explanation of the present eruption, but that the fact must not be overlooked.—Dr. SAVAGE was personally acquainted with factitious urticaria; but the condition did not last with him for more than half an hour at a time, and the mark would not remain.—Dr. MOXON suggested that Dr. Savage would require to scratch rather deeper.—The PRESIDENT proposed that a committee should be named to investigate the case at the hospital.—Dr. ROBERT LEE replied that factitious urticaria was not uncommon, but not the cause of the marking in the present case, otherwise the scratching and pinching to which the child had been subjected would have caused much more. It had been suggested by Dr. Bristowe that the disease was erythema marginatum.

Removal of Tumour by Means of the Elastic Ligature.—Mr. HENRY LEE read notes of the case. The patient, aged 55, was admitted into St. George's Hospital with a large tumour on his back, which consisted of two parts, divided by an hour-glass contraction on a level with the skin. The outer portion projected for some inches, and in shape and size resembled an ordinary cauliflower. The inner portion, more flattened, could be felt readily movable under the skin. An elastic ligature was passed several times round the centre of the tumour on a level with the skin, and tied. Half an hour after the operation, the patient complained of pain, which was afterwards explained by the fact that a portion of the skin to which the tumour was attached had been included in the ligature. At the expiration of the fourth day, the tumour was falling off, and the remaining portion of the pedicle was cut through with a pair of common scissors. The tumour had entirely sloughed, and there was not the slightest appearance of bleeding in the divided pedicle. A fortnight after admission, the remainder of the tumour was operated on. An incision was made through the skin only so as to separate the diseased margin; three large curved needles were then passed underneath the tumour, and the elastic ligature was again applied as before. Care was taken that every turn of the ligature passed into the incision made into the skin. The patient now complained of scarcely any pain after the operation. At the expiration of three days, this part of the tumour was almost detached, and had completely sloughed. The pedicle was divided with a pair of common scissors, without pain or hæmorrhage. The patient left the hospital with a healthy granulating wound one month after admission. The tumour weighed six ounces and a half, and a considerable portion was lost in the discharge and small portions of slough which had come away; so that, in all probability, it originally weighed double that amount. It had first made its appearance twelve months previously; at the end of four months, it had ulcerated; and, after six months' growth, had been removed by the ordinary ligature. It began to grow again seven days after removal. Mr. Lee remarked that the tumour might no doubt have been easily removed with the knife; but he thought it a favourable case to demonstrate the action of the elastic ligature, which no doubt had advantages in certain cases. In the first place, it acted without loss of blood; and this, in the case of large nævi, for instance, was a great advantage. Secondly, the elastic ligature remained tight until the tumour sloughed or was in a great part detached. Thirdly, patients would sometimes submit to an operation by ligature when they objected to any cutting operation. A patient with a fistula *in ano*, for example, who dreaded the knife, might have no objection to the operation by elastic ligature, and the operation could be perfectly well and speedily performed in this way. In applying a ligature to a large tumour, or to a very vascular part, as the tongue, it was of great importance that it should not become loose, which a common ligature would necessarily do so soon as some amount of ulceration had taken place; from which cause, some very awkward accidents had happened. The elastic ligature which Mr. Lee used was procured for him by Mr. Blaise, not without some difficulty; it came from Derby, there being none of the same description in London. The deeper part of the tumour might have been removed without dividing the skin at all; for the elastic ligature might be guided by needles properly placed, so as to dissect its way between the skin and the subjacent tumour. But in this case, as the margin of the skin had been involved in the morbid growth, the line of action of the ligature was marked out by the division of a portion of the skin with the knife, and this rendered the subsequent action of the ligature comparatively painless.

Mr. PICK remarked upon the subject of "bloodless surgery". He had found very much oozing after Esmarch's method. He was aware that cancerous tumours were now removed by sulphuric acid. He had applied a bloodless method to the treatment of chronic abscesses. Aspiration and opening under carbolic acid having failed to give sufficient results, he had resorted to the use of potassa fusa, which he placed on the most prominent part of the abscess and allowed to make its way in. His results were very favourable.—Mr. HULKE remarked that, while he would not gainsay the use of the elastic ligature in some cases, he believed that in removing cancers where one wished to discriminate there was a more discriminating method of operating. Mr. Hulke said that he felt very strongly that there was a better method than the elastic ligature in such cases. It was true that tumours might be so removed without immediate loss of blood, but there might be great secondary hæmorrhage. He then briefly related the details of a case of secondary hæmorrhage from the carotid artery after the removal of a cervical tumour by the elastic ligature.—Dr. PORTER of Boston, America, narrated his experience of the elastic ligature, as it had come under his observation in the wards of Professor Dittel in the Krankenhaus of Vienna. The result, as far as Dr. Porter saw, was unfavourable. Several cases of scirrhus of the breast were treated in this way, the ligature being applied for seven, ten, and fourteen days respectively. So much suppuration and odour resulted, that antiseptics were required to be constantly used. The students ridiculed the operation. As for hæmorrhage, there were times when the wound would bleed in the night, and styptics be required; and there were evening exacerbations, a rise of temperature, and the symptoms of surgical fever.—The PRESIDENT said that Mr. Hulke must not think that Mr. Lee was inclined to operate on cancer by the ligature; he was not. He had only tried the method in this case. He would not apply the ligature to the breast.—Mr. LEE replied that he had once proposed to operate on a mamma (in a patient of the President's, and in his absence) by the ligature, on account of the danger of hæmorrhage from the knife; but he did not. Discrimination must be used. The ligature was useful in nævi, for example.

Scrofulous Ulceration of the Bladder running an unusual course.—Mr. EDWIN HUMBY read the notes of the case. A little girl, aged 9, had suffered for some time from irritability of the bladder, accompanied by pain in micturition. The urine was ammoniacal, and contained soapy mucus, but no blood. Under the supposition that there might be a stone in the bladder, she was seen by Mr. Prescott Hewett, who diagnosed scrofulous ulceration of the bladder, and prescribed cod-liver oil and iron. Subsequently the child had some febrile symptoms, which were followed by the appearance of a swelling between the umbilicus and pubes. The swelling became red, tense, and eventually pointed, and appeared about to burst; instead, however, of doing so, a large quantity of pus was passed by the bowel, and the swelling for the most part subsided. From this time it varied much in size, in accordance with the amount of discharge from the bowel: occasionally it was tympanitic, being filled with flatus. Subsequently a small perforation took place in the swelling at the umbilicus, and through this a thin watery fluid oozed until the child's death. At the *post mortem* examination, the bladder was found to be very much thickened, with extensive ulceration of its mucous membrane, and patches of tubercular deposit between it and the muscular coat. In front of the bladder was a circumscribed cavity containing pus, and communicating with the bladder behind and with the perforation of the abdominal wall in front. At the back of the bladder was a second perforation leading into the rectum. The other organs were healthy.

Mr. WARRINGTON HAWARD said that these cases of scrofulous disease of the bladder were interesting, because they closely simulated calculus. One means of diagnosis was the fact that in scrofulous disease the pain was worse before micturition—probably from stretching—and is relieved when the urine was passed. The other symptoms were hæmaturia, increased by exercise, pus in the urine, pain, and frequent micturition. Sounding should be avoided—at any rate, more than once. In one case Mr. Haward had seen this followed by severe hæmorrhage. Mr. Thomas Smith had pointed out, in a paper on the subject, that not only the bladder, but the ureters also, and the pelves of the kidneys are affected, and that renal calculus may be simulated. He had himself seen hæmorrhage follow examination of the kidney by manipulation in such a case, which was cured by cod-liver oil and steel. These remedies were usually successful. He had never seen a case proceed to abscecss or ulceration into the bowel.—Mr. Brudenell Carter related a case of a female patient, the mother of children, who suffered from an abscess in the lower part of the abdominal wall and a tumour in the vagina. The abscess was opened, and discharged much pus, but refilled, and symptoms of poisoning supervened. A trocar was, therefore, passed into the vaginal swelling; and, a quantity of pus having been evacuated, the cannula was pushed upwards to the external wound, and the trocar after it, so as to re-establish a counter-opening. A drainage-tube was tied in; the patient mended, and in a few weeks only a serous oozing remained. The tube was then removed, when Mr. Carter was surprised to find it coated with phosphate, proving that it had been in contact with urine. The cure was, however, complete.—The President described a case, which had been under his care, of scrofulous ulceration of the bladder, and in which a pouch was formed in front of the rectum, obstructing the fæces. This pouch could be felt through the rectum, and was readily opened by the finger alone, and much pus discharged. On the patient's death, after a time, the diagnosis of scrofulous disease of the bladder was verified. As regarded the case just read, it was peculiar, inasmuch as "the other organs were healthy". This was very unusual; the ureters, etc., were generally diseased; and, if the patient recovered, he might die of phthisis. Recently the President had seen scrofulous disease of the bladder and of the knee in one patient.

MANCHESTER MEDICAL SOCIETY.

November 4th, 1874.

J. E. Morgan, M.D., President, in the Chair.

Slow Pulse: Diseased Heart.—Dr. Bird exhibited a heart, taken from a man, in whom, during life, the pulse was very slow and variable. For some time before death, it was reduced to sixteen beats in the minute. The accompanying dyspnœa was most severe when the pulse was low. The second sound of the heart was inaudible. The heart showed very extensive calcification of the aortic valves, with dilated and atheromatous aorta, and fatty degeneration of the muscular substance.

Fibrous Ankylosis.—Dr. Hardie introduced a patient, in whom one of the thighs had been flexed on the pelvis, by fibrous adhesions, nearly to a right angle. He attempted to straighten the limb forcibly under chloroform, and, while engaged in doing so, the femur suddenly gave way just below the trochanter, the limb becoming perfectly straight. Subsequent progress had been quite satisfactory. It was inferred from the case, that Mr. Adams' operation of subcutaneous section of the neck of the femur might legitimately be had recourse to in certain cases of fibrous as well as of osseous ankylosis.

Deformities from a Burn.—Dr. Hardie introduced a man, aged 23, with most severe deformities of the face, neck, and arms from a burn received twenty years previously. He proposed to treat the case by division and flap-transplantation, remarking that it was doubtful how far such a joint as the elbow would extend after its growth had been completed in a state of extreme flexion.

Medullary Sarcoma on the Frontal Bone.—Dr. Hardie showed a specimen of medullary sarcoma, situated on the side of the frontal bone. The external fungating portion was about the size of a fist; and the intracranial portion attached to the dura mater was of the size of a walnut.

Wry-Neck.—Dr. Hardie showed a specimen which illustrated very well the relation of the parts when the head is rigidly fixed in a position like that in wry-neck.

Disease of the Pulmonary Artery.—Dr. Dreschfeld showed two patients with valvular heart-affection, where the disease seemed to be confined to the pulmonary artery. The first case was that of a man, aged 32, who had always enjoyed good health up to Christmas, 1873, when he had several attacks of syncope. He was slightly cyanotic, and was stated to have always been so. There was heard a loud, rasping, systolic *bruit*, limited to the second left intercostal space. The right ventricle was remarkably hypertrophied. The aortic sounds and those at the apex were normal; there was no *bruit* in the vessels of the neck. There was slight depression of the left side of the chest. The second case was that of a man, aged 38, who had been a heavy drinker, and had suffered from palpitation and cough, and at times from excruciating pain in the back. A systolic and a very loud diastolic *bruit* were heard in the left second intercostal space, loudest at the sternal junction of the third left costal cartilage. The murmur was propagated upwards on the left side. The aortic sounds were heard pure in the second right intercostal space. There was no murmur in the carotids. The right ventricle was very much hypertrophied. The diastolic murmur was but faintly heard at the apex. There was an extreme degree of anæmia, but no cyanosis. In both cases, the pulse was small, soft, and dicrotic. There was no history of rheumatic fever in either case.

Exostosis of the Frontal Bone.—Dr. Samelson showed a case of exostosis of the frontal bone, which had been before the Society on two previous occasions. A slice of bone from the projecting edge of the orbit and a portion of hypertrophied submucous tissue of the upper lid had been removed, and the unsightly swelling over the left eye appeared much reduced in size.

Orbital Tumour.—Dr. Samelson showed an eyeball removed from the left orbit of an elderly woman, who had been the subject of long protracted irido-choroiditis. Attached to the eyeball, and nearly equal to it in size, was found a slightly lobulated melanotic looking tumour. This had lately given rise to exophthalmos. After its easy removal, the orbital lining appeared quite free.—The tumour was referred for examination to the Pathological Subcommittee.

Scarlet Fever and Diphtheria.—Dr. Ransome read a paper on the Relations of Scarlet Fever and Diphtheria, in which these relations were contrasted with the operations of various ferments out of the body.—The President, and Drs. Noble and Leech, took part in the discussion which followed.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

Wednesday, November 11th, 1874.

Rutherford Haldane, M.D., President, in the Chair.

Exhibition of Pathological Specimens.—Dr. Littlejohn showed two beautiful specimens of small Aortic Aneurism, which had burst into the pericardium. In both cases, death had been instantaneous and without a struggle.

Professor Lister showed an arm which he had amputated for a Soft Tumour of the Lower End of Humerus; and a Pedunculated Exostosis from the femur of a child.

Dr. Heron Watson showed the Os Calcis and Astragalus removed for disease from the foot of a young gentleman. Satisfactory progress had been made in recovery. He also showed an Epithelial Tumour he had recently cut away from the heel and inner ankle. He also exhibited Neuroma from an Ankle-joint Stump ten years old; the neuroma had rendered the stump painful and useless. He also showed the parts removed in two cases of Excision of the Knee-joint.

Mr. Annandale showed a whole Tongue, and two separate half Tongues, which he had removed for Epithelioma. He cut through the symphysis of the jaw, and then divided the tongue itself by the *écraseur*. He also showed an Exostosis from the Ulna, and a Tumour from the Ilium.

Dr. Chiene showed a patient, from whose skull he had removed several portions of bone, in consequence of a Compound Depressed Fracture of the Skull.

Dr. Craig showed a Wen, preserved for some weeks in a five per cent. solution of chloral hydrate. It retained a fresh appearance; and Dr. Craig thought that chloral hydrate, as recommended by Dr. King of Philadelphia, would prove a cheap and useful antiseptic.

Antiseptic Incisions, an Aid to Surgical Diagnosis.—Mr. Annandale read a paper on this subject. He urged the importance in many cases of a free tactile exploration of a doubtful tumour. This had hitherto been much neglected on the ground of risks to which the incision required might give rise; and he insisted on the value of antiseptic precautions in diminishing or removing such risks. He recommended the antiseptic incisions in obscure cases of suppuration, doubtful morbid growths, diseases of joints, injuries of a doubtful nature, obscure affections of the internal viscera which admit of being relieved by surgical means. Illustrative cases were given.—Mr. Lister endorsed what Mr. Annandale had said as to the value of antiseptic incisions in obscure cases, as in disease of joints, and doubtful tumours of the breast, into which preliminary incisions might be made, so as to allow the removal of a slice for microscopic examination.—Dr. G. W. Balfour referred to a case of supposed calculus of the kidney, upon which Mr. Annandale had cut down. He thought that, had the kidney been removed, the calculus might have been found; still, the sufferings of the patient had been relieved by the operation.—Dr. John Duncan thought that in attempts to make an exact diagnosis of tumours by actual touch and sight, surgeons must not be carried away so as to neglect a close study of their natural history. He had made an incision into a doubtful tumour of the mamma, and, even after examining a slice of the tumour with the naked eye and with the microscope, he was still unable to come to a conclusion as to its nature.

Case of Abscess of the Liver.—Dr. MUIRHEAD, Secretary, read a paper by Dr. GRAHAM STEEL, describing a case of abscess of the liver. The patient, aged 53, had severe diarrhœa and pain for a week before he was seen. He was very ill. Respirations, 50 per minute; temperature, 103 deg.; pulse 108. He showed evidence of perihepatitis; he was jaundiced, and his liver was enlarged. His habits were intemperate. All his symptoms gradually got worse. A bulging took place in the right hypochondrium; and, on an aspirator-needle being inserted, three ounces of thick pus were withdrawn. He sank exhausted a fortnight after admission, or three weeks after the first symptoms manifested themselves.—The PRESIDENT remarked on the interest of the case, from the rarity of acute hepatic abscess in this country.

Note on the Subcutaneous Injection of Mercury.—Dr. JOHN DUNCAN related the results of his late experience in the Lock Ward of the Royal Infirmary. He had administered, at intervals of from one to three days, one-sixteenth of a grain of the bichloride or bicyanide of mercury in solution subcutaneously. He believed that in this way the physiological action of the drug could be obtained, on an average, after three-fourths of a grain to one grain had been administered. The secondary symptoms seemed to disappear more rapidly than when administered by the mouth. The patients were in no case unwilling to submit to the momentary pain, and in every case the local irritation was trifling. The posterior surface of the arm and the intrascapular region were the most suitable for injection.—Dr. LITTLEJOHN asked if the bicyanide and bichloride acted locally as irritants in the same degree.—Dr. DUNCAN considered the bicyanide the less irritating.—Mr. LISTER alluded to the small quantity of mercury which was needed to affect the system when administered by a vapour-bath.—Dr. CHIENE had seen the cases in Dr. Duncan's absence in the summer, and confirmed his statements.—Dr. WATSON stated that his experience of the administration of mercury in syphilis was that it did no good, but a good deal of harm. Bad cases of syphilis occurred because mercury had been given, and in these cases it was necessary to give mercury again. He had at one time believed in the use of mercury; but, from watching cases which had been treated by syphilisation, he believed it to be as rational to give medicine during measles as to give mercury in syphilis. If mercury were administered, the patient would suffer for it afterwards. The disease should be left alone, and it would get well.—Dr. CADELL had seen mercury administered subcutaneously in Hamburg in 1868. Professor Boeck of Christiania ridiculed the treatment. His own experience coincided with that of Dr. Watson, that mercury was unnecessary in syphilis.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

NOVEMBER 17TH, 1874.

W. T. GAIRDNER, M.D., President, in the Chair.

Fresh Specimens.—Dr. WM. MAC EWEN showed a sample of fluid removed from a Bursa over the Trochanter, containing rice-like bodies similar to those found in bursal swellings at the wrist.—Dr. WOOD SMITH showed the thoracic viscera just removed from a case of Emphysema.

Papillary Form of Epithelioma.—Dr. HUGH THOMSON showed an epithelioma which he had removed from the lower lip of a man, aged 35. It had existed for three years, and, beginning as a wart, had involved about three-fourths of the lower lip.—Dr. THOMAS REID showed microscopic sections of this tumour and drawings of the appearances. This case belonged to the papillary variety of epithelioma, and formed a contrast and a supplement to the varieties brought before the Society last session, which were principally of glandular origin (either sebaceous or sudoriparous). The present epithelioma involved the papillæ, and was situated, as usual, at the junction of the mucous membrane and the skin, involving about half an inch of each. The tegumentary portion presented the usual characteristic warty appearances, and was covered by a brownish crust about the size of a sixpence; beyond this, there were small nodulations. The surface of the mucous membrane was still intact, but presented numerous flattened nodules, with depressions between, as far as the labial glands. On making a section vertical to the edge of the lip, the crusted part (beneath the crust) was seen to consist exclusively of enlarged truncated papillæ, with epithelium extending deeply into the intervening spaces, and, in some cases, containing rudimentary "pearly knots". In the mucous surface, the depressions between the nodules were partially filled with desquamated epithelial scales; the epithelium extended a considerable distance into the tissue, and presented in this way the appearance of hypertrophied very vascular papillæ, in which were traces of rudimentary pearly knots. Dr. Reid said this form of epithelioma appeared to consist essentially, in the first instance, of hypertrophy of the papillæ, with thickening of the epidermic and mucous layers by increased cell-formation. The sebaceous and sudoriparous glands seemed little or not at all affected, or, at least, not more than might be expected from the irritation caused by the morbid development of the other structures.

Carden's Amputation: Long Anterior Flap.—Dr. GEORGE BUCHANAN showed a young lad, whose femur had been amputated through the condyles a month before. By making a very long anterior flap (something like Teale's), a cicatrix had been obtained about an inch and a half above the end of the stump, and the cushion of soft parts could thus move freely over the end of the bone without any adhesion or irritation of the cicatrix there.

Exostosis of External Auditory Meatus.—Dr. R. W. FORREST showed a young woman, with defective hearing on the left side, of three years' duration. For the last two years, she had suffered at intervals from pain on the left side of the head and face, which the patient supposed to be caused by cold, but Dr. Forrest's observation led him to believe that these pains were due to some local congestions associated with an exostosis in the meatus; the occurrence of deafness probably marked the date at which the tumour blocked up the canal. At no time had there been suppuration from the ear. The tumour, evidently of bony consistence, arose from the posterior wall of the meatus, and nearly formed a complete obstruction, but a probe could be passed by its side. On satisfying himself of the nature of the case, he placed the patient under the care of Dr. Cassells, who reported that a watch could be heard on close contact, and that low clear speech could be easily heard; he considered (from negative evidence) that the middle and internal ear and the auditory nerve were unaffected; he supposed the growth to be a true exostosis, and not a hyperostosis due to inflammatory action. As the symptoms were not urgent, he advised delay; but, if irritation arose from the growth, he thought electrolysis might be tried as preferable to perforation.—Dr. GEORGE BUCHANAN thought the case came within Mr. Syme's category of aural cases, which could be dealt with by general as distinguished from special surgery. He thought an exostosis might be removed from the auditory meatus just as from the tibia, and that, as it would no doubt become larger, it should be dealt with at once. Under chloroform, a gouge and a hammer might, he thought, be safely employed for this purpose.

Disease of the Vermiform Appendix.—Dr. JOSEPH COATS showed two preparations of disease of the vermiform appendage. In the first, there had been acute inflammation of the appendage, resulting in an acute general peritonitis, the original inflammation of the appendage being caused, apparently, by the existence of a concretion about the size and shape of a cherry-stone, and composed of inspissated fæces. The case was somewhat interesting, in a clinical point of view, as the patient presented symptoms strongly suggestive of intestinal obstruction; strangulated hernia was suspected, but enemata had been successfully employed to move the bowels.—The other case was one in which the vermiform appendage had been converted into a large cyst measuring five inches in its long diameter. The cyst contained a tenacious colloid material, and the wall was thick and firm.

Soft Cancer of Mamma.—Dr. GEORGE BUCHANAN showed a mammary tumour which had been removed from a patient. It had grown very rapidly, and, from its softness, it had been supposed by the surgeon in attendance to be an abscess, and, indeed, it had been incised in this view, and, in consequence, a part of the mass of the tumour protruded from the wound. As it was now regarded as malignant, the breast was excised; but, on cutting up the tumour after the operation, Dr. Buchanan saw that it was not a regular scirrhus, and, indeed, he had at first some doubt as to whether it might not be a softened fibro-cellular tumour. He desired the opinion of the members regarding the sections under the microscopes.—Dr. JOSEPH COATS remarked that the microscopic structure seemed to him to show that this was undoubtedly a case of cancer. There were the usual collections of epithelial cells and the coarse stroma. There was not, however, the usual fibrous structure of scirrhus, but there seemed no objection to call it a case of soft cancer of the mamma. There was no essential distinction between scirrhus and soft cancer, and intermediate forms were met with; the distinction was only a practical one, and where, as here, a soft tumour presented the cancerous structure, it seemed natural to call it soft cancer.—Dr. THOMAS REID regarded the epithelial structure found in this, as in some other mammary tumours which he had examined, as being simply an increased development of the epithelium existing normally in the acini. The stroma of the gland was infiltrated with the oval-shaped granular cells or nuclei eminently characteristic of encephaloid cancer.

Duodenal Ulcer opening into a Large Artery.—Dr. JOSEPH COATS showed a duodenal ulcer perforating a large artery. The ulcer was situated just beyond the pylorus, and measured about an inch in diameter. It had perforated the whole thickness of the wall of the duodenum, and its base was formed of pancreatic tissue. At about the middle of the base, an artery of the size of a crow-quill was opened into, and was found on examination plugged by a clot. The artery was afterwards made out to be one of the branches of the hepatic artery.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, NOVEMBER 28TH, 1874.

ROBERT D. LYONS, M.D., President, in the Chair.

Injury of Leg.—Mr. G. H. PORTER presented the leg of a boy which he had amputated through the femoral condyles, in consequence of an extensive lacerated wound of the leg, with fracture of the tibia. The injuries were caused by the wheel of a cart passing over the limb. The fibula was not broken.

Pachydermatocele.—Mr. W. STOKES, jun., showed a remarkable specimen of this rare form of tumour, called by Virchow "Fibroma Molluscum". He had removed the growth from the head of a fully developed healthy man, aged 33. It first appeared when he was six years old. The base of the tumour was wide, and extended from the right ear to the occipital protuberance, and thence to the vertex. It was pendulous, reaching to the shoulders. Its surface was nodular, without discoloration, and it was thickly covered with dark hair. In the operation of removal, terrific hæmorrhage placed the patient's life in imminent peril, but Nélaton's procedure of inverting the body was followed with good effect, and the man rallied. The tumour was benign, due to simple hypertrophy of the skin and normal tissues. The name "Pachydermatocele", had been given to this form of growth by Professor V. Mott of New York. Mr. Stokes also laid on the table some photographs of a patient of Mr. Pollock, on whose body were several small tumours of this kind. They were removed by ligature.

Nasal Tumour.—Dr. BIGGER exhibited a small polypoid growth, which he had taken away from the posterior nares of a man, aged 71. It had a history of thirty-five years. It was attached by a slender pedicle to one of the turbinated bones, and was moulded into a cast of the naval cavities. Suffocation threatened, when Dr. Bigger succeeded in removing the mass.

Subject for the Society's Gold Medal.—The President announced that the subject selected by the Council for competition for the Society's gold medal, to be awarded at the close of the session was, "The Human Entozoa".

Election of Officers.—The following office-bearers for the session 1874-5, were elected. *President:* Robert Mac Donnell, M.D., F.R.S. *Vice-Presidents:* Sir Dominic Corrigan, Bart., M.D., Robert Adams, M.D., J. T. Banks, M.D., Joliffe Tufnell, A. H. M'Clintock, M.D., Edward Hamilton, M.D. *Council:* A. H. Corley, M.D., A. W. Foot, M.D., S. Gordon, M.B., T. Hayden, F.K.C.P., H. Kennedy, M.B., J. Little, M.D., B. G. M'Dowel, M.D., W. Moore, M.D., J. M. Purser, M.D., W. Stokes, jun., M.D., J. H. Wharton M.B., G. F. Yeo, M.D. *Secretary:* William Stokes, jun., M.D. *Secretary and Treasurer:* E. H. Bennett, M.D. *Secretary for Foreign Correspondence:* Robert D. Lyons, M.D.

Resolutions.—It was proposed by Dr. ATTHILL, seconded by Dr. MAC SWINEY, and resolved "that the Council do not nominate members to fill the vacancies annually occurring on the Council". It was proposed by Dr. HAYDEN, seconded by Mr. PORTER, and resolved, "that it is desirable to erect a bust, or other suitable memorial, to the late distinguished secretary, Dr. R. W. Smith". A committee was appointed to carry this object into effect; its members being the proposer and seconder, Drs. W. Stokes, jun., Bennett, J. Hamilton, Tfunell, and Cryan.

Vote of Thanks.—Dr. Lyons having left the chair, and Dr. McDonnell the new President having taken it, a vote of thanks to the retiring President was proposed by Mr. Porter, seconded by Mr. Tufnell, and carried unanimously. Dr. Lyons returned thanks.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE DOWNING PROFESSOR OF MEDICINE (Dr. Latham) gives notice that he will deliver a course of lectures on Materia Medica and General Therapeutics during the ensuing Lent and Easter Terms. The lectures will be delivered in Downing College on Tuesdays, Thursdays, and Saturdays, at 9 A.M., commencing on Tuesday, February 2nd. Fee for the course, £3 3s. The Professor further gives notice that he will attend at Addenbrooke's Hospital for the purpose of Clinical Instruction during the three months next ensuing on Mondays, Wednesdays, Thursdays, and Fridays, at 10 A.M., commencing on Monday, January 4th.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SUPERANNUATION ALLOWANCES.

COMPLAINTS continue to reach us from the Poor-law medical officers of the sister isle of the insufficient amount of remuneration allowed by some local sanitary authorities to their sanitary officers under the new Public Health Act (Ireland). Cases have come to our knowledge where the dispensary doctor has been appointed sanitary officer with the magnificent salary of £10 a-year as the *honorarium* for the arduous, distasteful, and onerous duties imposed upon him by the statute. In another instance, the dispensary doctor has been appointed sanitary officer at £20 *per annum*, whilst the relieving officers are appointed sub-sanitary officers at £15 and £12 annually respectively. The Wexford Rural Sanitary Authority at their last meeting reconsidered the question of the salaries of the sanitary officers at the request of the Local Government Board; and passed a resolution, by a large majority, to the effect, that they did not see why they should make any different order on the subject.

It is said, that the Local Government Board think the salaries for the sanitary officers inadequate, they having made the mistake of fixing a maximum salary instead of a minimum one. The course which boards of guardians in Ireland are pursuing respecting salaries under the Public Health Act, shows the position union officers will occupy when obliged to seek for a superannuation. As the law stands at present, an officer applying for it must have resigned five weeks ere he knows what allowance he may get, if any, it being discretionary with boards of guardians to give or not to give; whilst any amount so given is more in the nature of out relief than accorded as a matter of right. After a certain length of service, a medical officer should certainly know to what he would be entitled, and this amount should be defined by law on the principles of the civil service, and not be left optional with boards of guardians, as it is at present.

The circumstances of the unions in Ireland and England are different, and therefore require different arrangements. The guardians in England, owing to the valuation of unions being high, can afford to be more generous than those in Ireland, as a superannuation allowance will be less felt; while in Ireland, it would appear like a burden on an union, the valuation being comparatively so low, that the cry is, the "poor ratepayers" cannot bear it, and are unable to pay. In any future modification of the Public Health Act (Ireland), it would, therefore, be desirable, to consider the propriety of the law being made compulsory as regards superannuation allowances.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BIRMINGHAM.—Dr. Hill, the medical officer of health and analyst to the borough of Birmingham, reports that, in the thirteen weeks ending July 4th, the birth-rate of Birmingham was 42.9 and the death-rate 23.04 per 1000 of the population. Both birth-rate and death-rate were greater than in the corresponding period of last year. The increased death-rate was principally caused by the increased number of deaths from zymotic diseases being nearly double what they were in the corresponding quarter of 1873 (*i.e.*, 528 against 275). Both small-pox and scarlatina were very fatal, but especially the former. No fewer than 1303 cases of small-pox are reported for the quarter, or, in other words, double the number in a fourth part of this year that occurred in the whole of last year. Of the 1303 cases, 196 died; of the 1303 cases, 1158 were said to have been vaccinated, 136 not vaccinated, whilst in 9 cases it was doubtful; of the 196 that died, 129 were said to have been vaccinated, 63 not vaccinated, and in 4 it was doubtful. Dr. Hill is careful in using the words "reputed to be vaccinated"; that is, they may or may not have been vaccinated, or they may have only been vaccinated in infancy, and not since; and we know very well how inefficiently until lately vaccination was performed. As Dr. Hill remarks, "much of the so-called vaccination is not worthy the name". The four unmistakable scars, the standard of the National Vaccine Board, are seldom found in the vaccinations of ten years ago. Dr. Hill expresses strongly his belief in vaccination, and urged, at the very commencement of the outbreak, its universal adoption as the only means of combatting the disease. But his advice, in the first instance, unfortunately does not seem to have been adopted, and he does not hesitate to express his belief that, had the active measures been taken early in the outbreak that the force of circumstances have rendered essential now, the number of deaths from the disease would not have been so great. But how is it, considering that the Vaccination Act is a compulsory Act, that this inactivity existed? Dr. Hill, taking into consideration this large increase of zymotic diseases, urges on the Sanitary Committee the necessity of a hospital for infectious diseases. It is remarkable that a town like Birmingham, with a population of over 360,000 persons, has no institution of the kind. It is not the fault, we are told, of the Sanitary Committee; but there must be a fault somewhere. Dr. Hill reports that he has examined sixteen articles of food during the quarter ending June 1874; viz., seven samples of milk, five of tea, two of mustard, one of coffee, and one of butter. Nine samples he certified adulterated; that is, five of milk and four of tea; the rest were genuine.

East Kent District.—Mr. Robinson's report on the sanitary condition of the East Kent District has been drawn up in a very useful form. The volume contains details of every portion of the district, but a separate chapter being devoted to each sanitary authority, every requirement of the Local Government Board is complied with. With the exception of Dover, which appears to be under a careful sanitary administration, the evils which are described as existing in the seaside towns of the district are such as should make intending visitors hesitate before they again seek change on the much favoured south-east coast; for, instead of cherishing the advantages of a situation on the dry and well known chalk formation which occupies a considerable portion of the district, the inhabitants have converted the porous soil into a receptacle for sewage and liquid refuse, a gross abuse which has already led to the production of much preventable sickness and death. In the more rural districts, sanitary reform has as yet done but little, there has been but little improvement in point of cleanliness, and epidemic visitations are looked upon by the inhabitants as necessary evils, quite beyond their power of prevention. Though efforts have been made to free some streams, such as the Dour, from pollution, many remain much fouled by sewage. In the West Ashford district, for example, those who live in the higher parts, where numerous pure and wholesome streams take their rise at the foot of the chalk and Kentish rag hills, turn their sewage into these water-courses and foul the water for their neighbours below. Pernicious arrangements for the disposal of excrement are elsewhere associated with a polluted supply of water from wells. Thus, in the village of Sturry, which is situated on a low-lying flat plain, with a gravelly subsoil, the water-supply is nearly all obtained from the porous soil which receives the sewage of the inhabitants, whereas a really good water is allowed to run to waste. Cholera committed sad ravages in Sturry in 1854; and, from the description of the village at the present date, it keeps itself prepared to welcome the same visitor on a future occasion. Other glaring examples of water-pollution, arising from the improper disposal of sewage, occur in many places, and amongst those we note Willesborough and Ham Street in the East Ashford district. Though Mr. Robinson's report is throughout descriptive of the conditions now prevailing in his sanitary area, we must assume that he has adopted some means of recommending to the various sanitary authorities to whom it is addressed, what steps they should take to remedy the serious defects to which he has drawn their attention.

Macclesfield.—Dr. Bland's report to the Town Council of Macclesfield gives evidence that a large amount of very useful work is being done in this borough; and although no large sanitary works are being carried out, yet the attention which has been given to local details is considerable. A very large number of nuisances have been removed: closets have been reconstructed on a new system; houses have been cleansed; and supplies both of disinfectants and of "vermin-killer" have been gratuitously provided for the poor. How far the provision of this latter preparation may be deemed to be included amongst the duties of a sanitary authority may perhaps be somewhat doubtful, but as to its utility there can be no doubt. The death-rate of Macclesfield varies from 23.0 per 1000 in West Macclesfield to 31.1 per 1000 in the Sutton district; the former being that portion of the borough which has the best sanitary arrangements, the latter being marked by the absence of such requirements. The cause of the high mortality from phthisis which prevails in Macclesfield is discussed at considerable length; and the relation subsisting between the dampness of soil and consumption, which some years ago was ascertained by Dr. Buchanan to exist in this town amongst others, is examined in detail. Thus streets which are similar in character are selected, and it is found that in the one set the phthisis death-rate is as high as 12.4 per 1000, whereas in the other it only reaches 2.55; and the only ascertainable difference between the two is, that whereas the latter are well drained, the subsoil-water in the former has not been removed by works of sewerage. One portion of the town, known as Watercotes, has, however, been sewered, and yet the phthisis death-rate remains as high as 9.84 per 1000; but in this case the houses have been built on a thin layer of gravel overlying a thick bed of clay, and since they are only placed a few feet higher than the river into which the sewer empties itself, the drains are not laid at the depth necessary for the removal of the subsoil-water. Want of efficient ventilation, and employment in cotton-factories, and in silk waste dressing, aid in producing this mortality; but still the great preponderance of cases of pulmonary consumption occurs in the undrained streets as opposed to those provided with deep sewers. An undrained street must at all times be a nuisance; it is also a cause of preventable death; and sanitary authorities are therefore bound to provide those works of construction by which the evil can easily be removed.

POOR-LAW MEDICAL APPOINTMENTS.

Bates, Tom, L.R.C.P.Ed., reappointed Medical Officer for No. 1 District of the Worcester Union.

Cook, Robert, L.R.C.S.Ed., appointed Medical Officer and Public Vaccinator for the Desford District of the Market Bosworth Union.

Smith, A. P., L.R.C.P.Ed., appointed Medical Officer for the Shawbury District of the Wem Union.

Sutton, Frederick, M.R.C.S., appointed Medical Officer to the Willingham District of the Gainsborough Union.

Thompson, Herbert, M.R.C.P., appointed Medical Officer to No. 2 District of the Sevenoaks Union.

Webster, Henry W., L.R.C.P.Edin., appointed Resident Medical Officer for the Woolwich Union Workhouse and Infirmary.

White, John B., M.D., appointed Resident Medical Officer at the Hackney Union Infirmary, Homerton.

Wybrants, Joseph, L.K.Q.C.P.I., appointed Medical Officer and Public Vaccinator for No, 3, or Kelmersdon, District of the Frome Union, Somerset.

MILITARY AND NAVAL MEDICAL SERVICES.

Movements of Army Medical Officers.—Surgeon C. J. M'Kenna, doing duty in the Presidency General Hospital, has been appointed to act as resident physician to the Medical College Hospital, Calcutta, during the absence on deputation of Surgeon J. F. P. M'Connell, M.D., or until further orders.—Surgeon-Major J. Watts, 59th Regiment, has been appointed to the medical charge of the Darjeeling Convalescent Depôt, in the room of Surgeon-Major Rattray, 37th Regiment, under orders to proceed home—Staff-Surgeon J. Bernard has been appointed to the Plymouth Division, *vice* Staff-Surgeon F. S. Y. Adams, time expired.—Surgeon-Major Stewart, M.D., 15th Hussars, has been appointed to the medical charge of the Puchmurree Sanitorium.—Surgeon-Major J. Fraser, 1st Battalion, 23rd Fusiliers, will act as principal medical officer of the Aldershot Division until further orders.—Surgeon J. B. Kelly, has taken medical charge of the 23rd (1st Battalion) Fusiliers.

THE DUTIES OF REGIMENTAL MEDICAL OFFICERS.

A good deal of apprehension seems to have been created throughout the service by the promulgation of a recent circular letter from Whitehall Yard defining the duties of regimental medical officers. In various communications which we have received on the subject, the writers express themselves very strongly in opposition to the proposed regulations, and exhibit great distaste for the serious increase of work which this combination of hospital with regimental duties will impose upon them. Now, although at first sight this grievance may seem somewhat phantom in its nature, it begins to assume much more solid proportions when viewed by the light of recent changes, including more especially the fact that each regiment is at present only provided with one medical officer. It does not require much military experience to understand, how heavily the responsible duties of the surgeon must occasionally press upon him when he is thus single-handed, and how firing field-days, mounted parades, sanitary inspections, and a host of other things, may interfere with his regular attendance at hospital. We have no doubt that the authorities will see the propriety of relaxing in some measure the strictness of their rules, and thus modifying the uncomfortable friction with which new schemes are too often found to work; and, on the other hand, we are equally confident that medical officers themselves will gladly avail themselves of the great opportunities for professional instruction which these large depôt hospitals will afford, and will utilise in full measure the material thus provided. But, in order that a keen professional interest may be sustained in the cases under their care, it is most important that each attending surgeon should invariably be placed in charge of the sick from his own regiment. In this way alone can we retain that valuable portion of the old system which guaranteed an effective knowledge of the medical antecedents of each soldier, and ensured full confidence on the one side, with kindly consideration and comrade-like feeling on the other.

MEDICAL NEWS.

University of London.—B.S. Examination. Examination for Honours.

First Class.

Gould, Alfred Pearce (Scholarship and Gold Medal), University College
Duncan, Peter Thomas (Gold Medal), University College

Apothecaries' Hall.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, December 3rd, 1874.

Hentsch, John Page, The Dispensary, Lambeth

The following gentleman also on the same day passed his primary professional examination.

Morgan, William, St. Thomas's Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 10th, 1874.

Brewer, Reginald Edward Wormald, Newport, Monmouthshire
Davis, Henry, 1, Euston Square, N.W.
Gresham, Frederick Charles, Erskine Street, Liverpool
Hughes, William Lewis, Carmarthen, South Wales
Jepson, Edward, Durham
Kirby, Samuel John James, High Wycombe, Bucks
Synnott, John Gillespie, Halifax

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERYSTWITH INFIRMARY—Surgeon.
ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.
AXBRIDGE UNION—Medical Officer for the Second District. Salary, £30 per annum.
BASFORD UNION—Medical Officer for No. 1 District. Salary, £40 per annum.
BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.
BLYTHING UNION—Medical Officer for No. 9 District. Salary, £39 per ann.
BRIDGWATER UNION—Medical Officer for No. 2 District. Salary, £70 per annum.
CARLISLE FEVER HOSPITAL—Resident Medical Officer. Applications to the Clerk of the Urban Sanitary Authority, Carlisle.
CASTLEBAR DISTRICT LUNATIC ASYLUM—Resident Medical Superintendent.
CASTLE WARD UNION—Medical Officer for the Ponteland District. Salary, £20 per annum. Also, the Workhouse. Salary, £30 per annum.
CHORLTON UNION—Resident Medical Officer. Salary, £250 per annum.—Assistant Medical Officer. Salary, £120 per annum. Residence and attendance to each officer. Applications on or before the 22nd instant.
DUNDEE ROYAL INFIRMARY—Resident Medical Officer. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 30th instant.
EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon.
EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road—Physician. Applications to be sent on or before January 1st next.
FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.
GLOUCESTER INFIRMARY—Surgeon and Assistant-Surgeon. Applications on or before the 31st instant.
GREAT NORTHERN HOSPITAL, Caledonian Road—One Physician and one Surgeon. Applications to be sent in on or before January 12th, 1875.
HANTS COUNTY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to the Medical Superintendent, on or before the 22nd instant.
HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.
HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.
INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.
LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.
MANCHESTER UNITY OF ODD FELLOWS MEDICAL DISPENSARY, Hull—Surgeon. Salary, £175 per annum, with house, coals, and gas. Applications on or before the 26th instant.
MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.
MITFORD and LAUNDITCH UNION—Medical Officer for the Workhouse. Salary, £45 per annum.
MORVEN (Parish of), Argyleshire—Medical Officer. Salary, £100 per annum. Testimonials to be sent in on or before the 30th December, to H. A. Fraser, Morven, Fort William, N.B.
NEWCASTLE-UPON-TYNE BOROUGH LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before the 26th instant.
NORTH BIERLEY UNION—Medical Officer for the Seventh District.
NORTH-EASTERN HOSPITAL FOR SICK CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £100 per annum, with attendance, rooms, coals, and light.
PLOMESGATE UNION—Medical Officer of Health. Salary, £100 per annum. Applications on or before the 26th instant.
PLYMOUTH UNION—Medical Officer for No. 3 District.
RICHMOND (Surrey) UNION—Medical Officer for the Richmond District. £100 per annum.
RISBRIDGE UNION—Medical Officer for the Fourth District.
ROYAL INFIRMARY FOR CHILDREN and WOMEN, Waterloo Bridge Road—Resident Medical Officer. Salary, £66 per annum, with board and lodging. Applications on or before the 21st instant.
RYDE DISPENSARY—Physician.
ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.
ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.
SCARBOROUGH UNION—Medical Officer for the Sherbrum District. Salary, £30 per annum.
SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing.
SLEAFORD UNION—Medical Officer for the Sleaford District and the Workhouse. Salary, £50 and £30 per annum respectively.
STRATHKINNESS, Village and District of—Medical Officer. Salary, £10 from Parochial Board, with £110 from a workmen's club, exclusive of midwifery fees. Apply to Mr. A. Cowper, Kincaple, Cupar Fife.
SURREY DISPENSARY—Additional Surgeon. Applications on the 22nd inst.
SWANSEA URBAN AND PORT SANITARY DISTRICT—Medical Officer of Health. Salary, £200 per annum, and fees.
TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.
TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.
UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.
WESTERN DISPENSARY, Broadway, Westminster—Resident Medical Officer. Salary, £105 per annum, with apartments, coals, and gas. Applications on or before the 31st instant.
WESTERN OPHTHALMIC HOSPITAL, Marylebone Road—Honorary Surgeon. Applications on or before the 25th instant.
WEST RIDING ASYLUM, Wakefield—Assistant Medical Officer and Pathologist.
WOOLWICH UNION, Kent—Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £60 per annum, with board, lodging, and washing. An additional salary of £20 per annum will be given for dispensing for the poor of the Plumstead District.
WORKSOP DISPENSARY—Resident Surgeon. Salary, £100 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before January 1st, 1875.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Brown, George, M.R.C.S.Eng., appointed Surgeon to the Islington and North London Provident Dispensary.
Clarkson, John W., L.R.C.P.Lond., appointed House-Surgeon to St. Thomas's Hospital.
Deeley, William, M.D., appointed Medical Officer to the Malton Dispensary, *vice* W. T. Colby, M.R.C.S.Eng., resigned.
Gill, Henry C., M.R.C.S.Eng., appointed Medical Superintendent of the York Lunatic Asylum, Bootham, York.
Harvey, A., L.A.H., appointed Apothecary to the Rathmines Dispensary.
Langard, Alfred, M.R.C.S.Eng., appointed House-Physician to St. Thomas's Hospital.
Mackenzie, George H., M.B., appointed Assistant-Surgeon to the Gateshead Dispensary.
Murchison, Finlay, M.B., appointed Assistant Medical Officer to the Crichton Royal Institution, Dumfries.
Rossiter, George F., M.R.C.S.Eng., appointed House-Surgeon to St. Thomas's Hospital.
Stocker, Charles J., M.R.C.S.Eng., appointed Resident Medical Officer to the East London Hospital for Children.
Taylor, Christopher M., L.R.C.P.Lond., appointed Medical Accoucheur to St. Thomas's Hospital.
Thomson, S. J., M.R.C.S.Eng., appointed House-Surgeon to the Kent and Canterbury Hospital, *vice* Atkins, resigned.
Thorpe, George, E. K., M.R.C.S.Eng., appointed Surgeon to the Public Hospital, Sheffield, *vice* T. Chesman, F.R.C.S.Eng., deceased.
Wolferstan, Sedley, L.R.C.P.Lond., appointed Medical Officer to the Plymouth Police, *vice* J. W. Stevens, M.R.C.S.Eng., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

Davson.—On December 10th, at Broadstone House, Dartmouth, the wife of *F. Adams Davson, M.D., C.M., of a son.
Ewart.—On December 9th, at Limefield House, Cheetham Hill, Manchester, the wife of *J. H. Ewart, Esq., of a son, still-born.
Worley.—On December 11th, at Brooke Lodge, De Beauvoir Road, N., the wife of *W. C. Worley, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

DEATH.

Ewart.—On December 14th, at Limefield House, Cheetham Hill, Manchester, Emily Matilda Christine, wife of *J. H. Ewart, Esq., aged 28.—Friends will kindly accept this intimation.

Dr. J. W. Hicks has been elected to a Fellowship at Sidney Sussex College, Cambridge. Dr. Hicks was Senior in the Natural Science Tripos, and third among the Senior Optimes in 1870. He for some time held the Lectureship in Botany at St. Thomas's Hospital, and is now Demonstrator of Chemistry in the Cambridge University Laboratory.

1875.

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The date for sending in applications for Grants is extended to the 27th day of December instant. Applications, stating the nature and objects of the intended research, should be sent before the above-mentioned date to the General Secretary, at the Office of the Association, 36, Great Queen Street, W.C.

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Edited by ERNEST HART, Esq.

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ADOLPH RASCH, M.D., Physician for Diseases of Women to the German Hospital.—1. The DIAGNOSIS of EARLY PREGNANCY. 2. PLACENTA PRÆVIA, with CASES.

HENRY A. REEVES, F.R.C.S.Ed., Assistant-Surgeon to the London Hospital.—1. PRINCIPLES of ORTHOPÆDIC SURGERY. 2. CONTRIBUTIONS to AURAL SURGERY. 3. SURGICAL CASES.

JOHN RINGLAND, M.D., Master of the Coombe Lying-in-Hospital, and Lecturer on Midwifery in the Ledwich School of Medicine, Dublin.

FREDERICK T. ROBERTS, M.D., Assistant-Physician to University College Hospital, and to the Hospital for Consumption at Brompton.—On DISEASES of the HEART and LUNGS.

ALEXANDER ROBERTSON, M.D., F.F.P.S.G., Physician to the Town's Hospital and Asylum, Glasgow.—The SENSORY and MOTOR PRODROMATA of INSANITY.

D. ARGYLL ROBERTSON, M.D.,F.R.C.S. Ed., Ophthalmic Surgeon to the Edinburgh Royal Infirmary.—OPHTHALMIC CASES.

W. TINDAL ROBERTSON, M.D., F.R.C.P., Physician to the General Hospital, Nottingham.—INTESTINAL OBSTRUCTION.

JAMES ROUSE, F.R.C.S.Eng., Assistant-Surgeon to, and Lecturer on Anatomy at, St. George's Hospital. — SURGICAL CONTRIBUTIONS.

JAMES RUSSELL, M.D., F.R.C.P., Physician to the General Hospital, Birmingham.—CLINICAL REPORTS.

A. ERNEST SANSOM, M.D., Physician to the City Road Hospital for Diseases of the Chest.—INFECTION and DISINFECTION.

LEONARD W. SEDGWICK, M.D.—CASE of RUPTURE of MUSCLES, with UNUSUAL SYMPTOMS and PULMONARY EXTRAVERSATION.

T. CLAYE SHAW, M.D., Medical Superintendent of the Metropolitan Asylum, Leavesden.

R. SHINGLETON SMITH, M.D., Physician to the Royal Infirmary and Lecturer on Anatomy and Physiology in the Medical School, Bristol. — CLINICAL and PATHOLOGICAL MEMORANDA.

J. W. F. SMITH-SHAND, Physician to, and Lecturer on Clinical Medicine in, the Royal Infirmary, Aberdeen.—CONTRIBUTIONS on INTRATHORACIC TUMOURS and other SUBJECTS.

MICHAEL H. STAPLETON, F.R.C.S.I., Senior Surgeon to the Jervis Street Hospital, Dublin.

A. B. STEELE, L.K.Q.C.P., Lecturer on Midwifery in the Liverpool Royal Infirmary School of Medicine. — PAPERS on OBSTETRICS and GYNECOLOGY.

CHARLES STEELE, F.R.C.S., Surgeon to the Bristol Royal Infirmary.—On SKIN-GRAFTING.

T. GRAINGER STEWART, M.D., F.R.C.P.Ed., Physician to the Royal Infirmary, Edinburgh.—CLINICAL OBSERVATIONS.

ALFRED S. TAYLOR, M.D., F.R.C.P., F.R.S., Professor of Medical Jurisprudence at Guy's Hospital.—PAPERS on MEDICO-LEGAL SUBJECTS.

E. SYMES THOMPSON, M.D., F.R.C.P., Physician to the Hospital for Consumption, Brompton—CLINICAL LECTURES on the VARIETIES of PHTHISIS.

HENRY M. TUCKWELL, M.D., Physician to the Radcliffe Infirmary, Oxford.—FRACTURE of PARIETAL BONE; CONVULSIONS; ASPHESIA; HEMPLEGIA.

J. BATTY TUKE, M.D., F.R.C.P.Ed., Morrisonian Lecturer on Insanity to the Royal College of Physicians of Edinburgh.—CONTRIBUTIONS on CEREBRAL PATHOLOGY, INSANITY, etc.

AUGUSTE VOISIN, M.D., Physician to the Salpetrière Hospital, Paris.—The TROUBLES of SPEECH in the GENERAL PARALYSIS of the INSANE.

WILLOUGHBY F. WADE, M.B.,F.R.C.P., Physician to the Birmingham General Hospital.—1. HYSTERICAL MIMOSES. 2. NEUROTIC RELATIONS of SKIN-DISEASES.

W. W. WAGSTAFFE, F.R.C.S., Assistant-Surgeon and Lecturer on Anatomy in St. Thomas's Hospital.—On CERTAIN DISEASES of BONE.

J. H. WATHEN, L.R.C.P.Ed.—CAN CHLOROFORM be LONG RETAINED in the SYSTEM AFTER ITS ADMINISTRATION?

EBEN WATSON, M.D., Surgeon to the Royal Infirmary, Glasgow.—CLINICAL ILLUSTRATIONS of THROAT-DISEASES.

HERMANN WEBER, M.D., F.R.C.P., Physician to the German Hospital.—NOTES on the USE of CLIMATES.

SPENCER WELLS, F.R.C.S.Eng., Surgeon to the Samaritan Hospital.—NOTES at the BED-SIDE in the SAMARITAN HOSPITAL.

J. G. WILSON, M.D., F.R.S.E., Professor of Midwifery in Anderson's University, Glasgow.

JOHN WOOD, F.R.C.S.Eng., F.R.S., Professor of Surgery in King's College and Surgeon to King's College Hospital.—CLINICAL LECTURES on CASES.

W. BATHURST WOODMAN, M.D., Physician to the North-Eastern Hospital for Children, and Assistant-Physician to the London Hospital.—STUDIES of SKIN-DISEASES.

FREDERICK W. WRIGHT, M.R.C.S. Eng.—DECOLLATION as a MODE of DELIVERY in SHOULDER PRESENTATIONS.

HENRY J. YELD, M.D., Medical Officer of Health for Sunderland.—The HEALTH and MORTALITY of TOWNS and VILLAGES as AFFECTED by SANITARY LEGISLATION.

I. BURNEY YEO, M.B., M.R.C.P., Assistant-Physician to King's College Hospital and the Hospital for Consumption at Brompton.—A PRACTICAL REVIEW of the TREATMENT of PHTHISIS in its different FORMS, STAGES, and COMPLICATIONS.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. W. F. Teevan, "A Review of the Modern Methods of Treating Stricture". Mr. G. Henry Pedler will show his new instrument, the Pneumatograph. Mr. Spencer Watson will exhibit a patient with Displacement of the Eyelids, Nose, and other features, resulting from a severe injury, and partly remedied by Plastic Operation.

NOTICES TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

AUTHORS desiring reprints of their articles published in the JOURNAL, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

CORONERS' INQUESTS.

SIR,—Though there is some uncertainty as to the cases in which inquests ought to be held, it seems to me that the coroner who decided not to hold one in the case mentioned in the letter signed "Stillborn", at p. 727, was evidently wrong. The body of an infant was found under such suspicious circumstances, that a medical examination was deemed necessary to decide whether it had lived or not—*i.e.*, whether or not murder might have been committed, or a birth criminally concealed; and because the surgeon was of opinion that the child was not viable, no inquest was held. That was not the question. However certain I may be that a man will die to-morrow, I should be guilty of homicide if I kill him to-day. However certain it may have been that the infant in question could not have been reared, whoever shortened its life, however little, or left it to die by exposure, was guilty of infanticide; and whoever secretly left the body of a child that had lived was guilty of concealment—probably of criminal concealment—of the birth. There need be no hostile proceeding either in this or in any of the similar cases that frequently arise. What is wanted is authoritative decisions in cases now disputed, that coroners may have clearer guidance than they now have, when to hold and when not to hold inquiries so important. I am, etc., P. H. HOLLAND.

INJURY OF THE MILK-TEETH.

SIR,—I should be very glad to receive, through the columns of our JOURNAL, advice on the following case from any Associate who has had practical experience in similar cases. Some four months since, a little girl fell on her mouth when ascending a stone-staircase. She cut her tongue considerably; and the consequent hæmorrhage at the time only attracted attention, as there was no apparent injury to any of her teeth. In consequence of a bulged and swollen appearance of the right side of the upper lip, which attracted attention some weeks subsequently, an examination of the gum corresponding thereto led to the discovery of a fistula at the base of the right upper central incisor. This tooth admitted of very slight motion, causing no pain. The parents have had the opinion of the best local surgeon and dentist in the French town in which they reside. The former unhesitatingly advises the immediate extraction of the tooth, which he considers to be the cause of the irritation, which, he says, if continued, will destroy the germ of the permanent tooth (she is now four years and a half old) to follow. The surgeon-dentist, however, on the other hand, is quite opposed to extraction, which he conceives at her age would result in absorption of the corresponding alveolar process, and a consequent distorted permanent tooth. He recommends local remedies. This very conflicting advice is most perplexing; and as I am the parent, with no special knowledge in this branch of the profession, I should be most thankful for the experience of any member of our Association who will and can throw light on the case. I am, etc., W. B.

Avranches, France, December 1874.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

LEPROSY IN CANADA.

SIR,—In the JOURNAL for November 21st, p. 656, is a notice from the *Toronto Globe*, in which are statements that appear to me somewhat incorrect. Referring to the writer's description of the mode of origin of leprosy in Tracadie, and the idea that it is purely hereditary, I beg to give the following quotations from the Report on Leprosy by the Royal College of Physicians, 1867, page 1: "The disease was brought into the colony by an emigrant family from St. Malo"[*] (Dr. Bayard). "Leprosy has been known in New Brunswick since 1815" (Dr. Nicholson); and at p. 29) "it has been confined to the French population (in Tracadie), *with the exception of four persons*". The Lieutenant-Governor states: "I believe there is authentic evidence of *some few* English settlers having fallen victims to this terrible malady." Dr. Benson admits (p. 3) "that a Scotchman, named Stewart, had the disease: and his descendants are likewise affected", Dr. Gordon says, "individuals of different races living in the same house with the lepers have become affected and died of the disease".

According to the *Report*, therefore, it is not purely hereditary, but has spread, as much as might be expected in a sparsely settled district, from people isolated by language from their fellow-colonists, and from cases carefully kept in isolation. Further on, the writer of the paragraph says: "It would seem that leprosy is on the increase in 'many' of the British dependences. In some parts of India one person in every hundred is a leper. In some parts of the West Indies, as well as the Sandwich Islands, this disease is very prevalent." Now, leprosy was imported into the Sandwich Islands about 1848, and has spread with a rapidity which only the theory of contagion can account for: but in India, while in a few small villages there *may* be 1 in 100 a leper, the highest statistical proportion given in the *Report* is in Augur, 1 in 347 (16 in 5,550). Dr. H. Carter of Bombay believes (p. 111) that "leprosy is not on the increase at present, but probably the reverse". The latest census returns (1869) gives 93,231 lepers in India; but census returns are sure to omit many, so that at least 100,000 would be nearer the truth: and this in 121 millions, would be 1 leper in about 1,200 of the population, not nearly so high a proportion as in many other places. It is probable that a temporary increase may have been caused by the famine in Bengal.

In the West Indies, in Jamaica, in 1861, the census showed 1 leper in 567; in 1871, 1 in 676 of the population (Milroy's *Report on Leprosy and Yaws*, 1873). This, though no doubt under the real number, may safely be used for comparison, as the errors would in both years be of the same nature, and balance each other. As is seen, a decrease is shown.

In St. Kitts, by careful inquiry among official and other records, I found that among 20,149 slaves, there were, in 1817, at least 95 confirmed lepers, or 1 in 212: while in April 1872, by personal effort, aided by the clergymen, medical men, the police, and friends living in each district, I only discovered 72 (in a population of 28,000), or 1 in 389. In 1854, the census showed 53 lepers (in 20,700 inhabitants), or 1 in 390—practically the same, apparently, as in 1872; but from the very special nature of my own inquiries (I include one case of only a few months' duration), I have no doubt that cases would be omitted in the hurried taking of the 1855 census, such as would be included by me; therefore I believe that leprosy has decreased in St. Kitts since 1855, but that decrease is not so marked as in the period 1817-55, there being now free intercourse (which was strictly prevented by the slave-owners) between lepers and others, and the people having become more crowded into the towns and villages—a fact which in itself accounts, by bringing lepers more into notice, for the idea held by some that it is increasing.

As to the other West Indian islands, there are no statistics of leprosy, and the opinions emitted by the medical men are without value, and generally contradictory (see answers to Interrogatory 14 in the *Report* of 1867).

Demerara—in which there was 1 leper in 280 of the population (see *Report*, p. 114)—is the only colony in which five medical men unanimously report that it is increasing, and attribute this increase to "free intercourse", in which the importation of Coolies (?), Portuguese, Chinese, and Africans, may have assisted. But the increase cannot be taken as proved until comparative statistics of two separate periods are brought forward to support them. Even in Jamaica, the two reporters, Drs. Fiddes and Bowerbank, were of opinion (in 1862) that it was increasing (*Report*, p. 13)—an opinion not supported by the statistics given above.

There is evidently, then, no ground for the confident assertion "that leprosy is on the increase in many of the British dependencies", Dr. Carter's opinion for India (so far as it goes, though opinions are of no great value in such a matter), and the statistics I have put forward for the West Indies, pointing to an opposite conclusion. I am, etc., W. MUNRO, M.D., C.N.,
late Medical Officer for St. Kitts, West Indies.

Cupar-Fife, November 21st, 1874.

FOREIGN DEGREES.

SIR,—I see that a correspondent is asking information concerning the M.D. degree of Foreign Universities. I can give him this much, that at Giessen the examination is in English, and lasts three hours. I would strongly advise him to go to Brussels. The examination is a thoroughly practical one, and lasts a week. Heidelberg, Erlangen, etc., examine in German, and they require a thesis to be written and printed.

M.R.C.P.s should write to Professor James, the University, Brussels; or else to Dr. Eschardt, Giessen, Hesse Darmstadt. I am, etc.,

December 13th, 1874. A PHYSICIAN.

MEDICAL FRIENDLY SOCIETIES.

SIR,—I have looked with much interest, but in vain, for a reply to the inquiry made by "An Associate" in the JOURNAL for November 7th last, "Is there any sick club or friendly society connected with the medical profession which, for an annual payment, guarantees pecuniary relief to medical men in time of sickness? If not, which is the best of the many friendly societies to join?" I hope you will kindly allow the question to reappear in the Notices to Correspondents, and that it may elicit the desired information. I am, etc., SURGEON.

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[*] This was also stated thirty years ago by Boyle (*London Medical Gazette*, quoted by Hirsch, *Histor. Geograph. Pathologie*, p. 322). The idea has also been mooted that it came from the West Indies (*Report*, p. 8), but this is only conjecture.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

SIR,—Which of those possessing the following degrees—viz., M.R.C.S. and L.S.A.Lond., or M.B. and C.M.Edin., stands highest in the medical profession? and can either recover debts in the County Court *without* being duly registered? and can either legally have "Doctor" put upon their door?

December 1874. I am, etc., X. Y. Z.

⁂ 1. M.B. and C.M., being University degrees, rank higher than the M.R.C.S. and L.S.A. 2. For recovery of debts in a court of law, a medical practitioner must be registered. 3. Neither is legally entitled to the title of "Dr.", which is the peculiar property of an M.D.

THE CONTAGIOUS DISEASES ACTS.

SIR,—Permit me to draw your attention to two errors of detail, which have crept in during the discussion on the Contagious Diseases Acts now going on in the JOURNAL. 1. Through an error in calculation, or a printer's mistake, the annual ratio per 1,000 of admissions for primary syphilis in the 1st Battalion of the Coldstream Guards between September 3rd, 1870, and March 3rd, 1871, is put too low in Mr. Myers's letter of the 5th instant. Calculating on the data supplied in the letter, it should have been 94.28, and not 74.28, as stated. 2. In your editorial comments on Dr. Nevins's letter of November 25th, you have, by an oversight, adopted Mr. Myers's number of admissions for Windsor, as stated in his letter of October 31st, instead of the corrected number, which appeared in the JOURNAL of the following week. The words in the first letter were, "Thus during the whole period only four cases of one disease and three of another were contracted in Windsor." The correction, as published among the Notices to Correspondents in the following week, is as follows: "Thus during the whole period, only six of the cases of primary syphilis and two of gonorrhœa were contracted in Windsor." I am, etc.,

74, Rodney Street, Liverpool, Dec. 7th, 1874. WM. CARTER.

⁂ The insertion of 74.28 instead of 94.28 was a misprint which was not detected till too late.

SIR,—Mr. Stansfeld may congratulate himself on possessing as a champion so able a letter-writer as Dr. Nevins. After reading the reply of the latter gentleman to Mr. Myers's comments on the working of the Contagious Diseases Act, many of your readers must have been considerably exercised as to how Mr. Myers would be able to dispose of Dr. Nevins's propositions and figures. In the JOURNAL of December 5th, we have Mr. Myers's final accounts, which show that much more good has been effected by the Act, even in this early stage of its working, than its most sanguine supporters had any right to expect. But not only is more time required before the public can derive much real knowledge from the inspection of facts and figures elicited from military surgeons, but a much wider extension of the area in which the Act is enforced is to be desired. For instance, London is within so short a distance of Windsor by rail, that not a few of the sores contracted "in and out of the district", in all probability, took their origin outside the protected area. All such cases score hardly against the Act itself.

There is one feature in Mr. Myers's tables worthy of special notice. In six months of the year 1868, when the Act was in its earliest infancy, 64 men from an average strength of 608 came under treatment at Windsor for primary venereal sores. And on referring to the fourth paragraph of Mr. Myers's letter, it is found that the battalion numbering so many wounded had followed immediately, or at a short interval, the Scots Fusilier Guards, in which regiment the soldiers were not then inspected for venereal disease. To reduce the number of soldiers and sailors affected by venereal disease to a minimum, there should be a co-operation on the part of army and naval surgeons with the civil medical inspectors. And those men for whose protection the Act was framed should be subjected to periodical medical inspection such as obtains in the Coldstream Guards. Such a practice would, moreover, remove an objection, which is raised with more vehemence than logic by many who are opposed to an important step in sanitation—namely, that restrictions are unjust which do not affect the men as well as the unfortunate women. I am, etc., EDMUND OWEN.

Cleveland Square, W., Dec. 7th, 1874.

MEDICAL DEGREES AND TITLES.

SIR,—I perceive from your correspondence columns that the old bone of contention—the title of Doctor—has again been dragged into the light, with the usual threadbare arguments *pro* and *con.*, *usque ad nauseam*. I should not have contributed to the fray, had I not observed some statements in the JOURNAL for November 21st, from M.D.Edin., calculated—I suppose in ignorance—to convey a false impression as to the requirements of the Royal College of Physicians of Edinburgh for their license. The statements to which I refer are contained in the last paragraph, in which M.D.Edin. imagines he had a more severe examination to undergo for his degree than he would have had to pass for the license at the College of Physicians. I can assure him that he is quite mistaken. No "mere one or two hours' examination in two or three subjects" will ever get anyone the diploma of L.R.C.P.Edin.; on the contrary, with the exception of botany and natural history, the examinations are, and always have been, identical, so far as the number of subjects go, the length of time required, the mode—written and oral—"not to name classics, etc.", which are quite as essential for the L.R.C.P.Edin. as for the M.D.Edin., and as indispensable. Nor does it necessarily follow that because a man can write himself M.D.Edin., he would find it any the less difficult to write himself L.R.C.P.Edin. on that account. When I passed in August 1865, a gentleman who had just graduated as M.D.Edin., was plucked for the L.R.C.P. & S.Ed.; and this is by no means a solitary case, and is incapable of refutation. I have proved, then, that the L.R.C.P.Edin. is as thorough a test of medical, classical, etc., knowledge as the M.D.Edin., and not to be so easily obtained as your correspondent lightly and without warrant affirms. It is quite on a par, as far as examination goes, with any other Scotch medical qualification. As to the title of Doctor, that is of no importance. The public gives the English prefix of Doctor to every medical man who possesses a legally qualified medical title, as distinguished from, or in conjunction with, a surgical one; and the Irish College of Physicians does so by law, as well as by courtesy. A courtesy title is no new thing in English history. I presume the Marquis of Bute does not consider himself defrauded or insulted by the assumption of the title by the Marquis of Lorne, although the latter has no legal right to it: consequently I do not see any reason why M.D.Edin. should be so wroth with L.R.C P.Edin. for putting the English courtesy prefix "Dr." before his name, instead of the more legal but more inconvenient Physician after it: it is the difference between tweedledum and tweedledee.

November 23rd, 1874 I am, etc., L.R.C.P.Edin.

SIR,—With respect to the above question, I am afraid that your correspondents, "Cosmopolitan" and "A Country Practitioner", in your issue of October 24th, have not as yet informed themselves on the subject of the examinations, etc., for British University degrees. They seem to take for granted that the degree of M.D. can be obtained at one grasp, by one examination, as that of St. Andrew's (before 1863 or), under existing regulations, for senior practitioners. The properly worked for, and the only University medical degrees in Great Britain of any real worth, are obtained after (1) an extended preliminary educational examination, as compared with that required for diplomas and licenses to practise; and (2) after a series of professional examinations (in my own case, four)—the curriculum of lectures, etc., in most if not all cases being more extensive for graduation—then the candidate only qualifies as M.B. The residence required by some Universities is not by any means the essential difference between the two classes of qualification. That medical men, who have been in practice for some years with, say the licence of a College of Physicians to practise medicine, should be allowed, as one of your correspondents suggests, to get the degree of M.D. by one step, and with little or no trouble, is simply an absurdity, and would be the grossest injustice to graduates who had toiled through what I above represent. The examination-tests for licenses of Colleges of Physicians are, I believe, no more strict than those for the L.S.A.; and in the case of the L R.C.P.Edin., there is one subject less—viz., botany. Your correspondent "Justice" will see in your JOURNAL of November 8th, 1873, that a Licentiate of the Irish College of Physicians has no right to call himself Dr. So far from agreeing with "Cosmopolitan" about the St. Andrew's M.D., I believe that, if justice were done to existing properly educated medical graduates, the General Medical Council would take away the power of that University to grant the above degree, except after the same course of study and extent of examination required by the other British Universities. My opinion is, that men, when joining the profession, should select what qualifications they aspire to, work for, and get them then, instead of grumbling when they are older, because no British University will grant them its M.D almost for the mere asking, and feel itself honoured in so doing. I am, etc., HONESTAS.

November 6th, 1874.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. W. S. Savory, London: Dr. J. Matthews Duncan, Edinburgh; Dr. T. L. Brunton, London; Dr. Sibson, London; Mr. T. Holmes, London; Dr. J. Hughes Bennett, Nice; Dr. Ferrier, London; Mr. T. H. Bartleet, Birmingham; Dr. J. Bell, Edinburgh; Dr. Mackey, Birmingham; Dr. Crighton, Tavistock; Dr. A. B. Steele, Liverpool; Inspector-General Maclean, C.B., Southampton; M.D.; Mr. Karkeek, Torquay; Dr. Rutherford, Edinburgh; Mr. J. R. Lynch, London; Dr. Batty Tuke, Edinburgh; Mr. T. P. Lucas, London; Charitas; Dr. J. F. Charles, Belfast; Mr. G. T. Pirrie, Belfast; The President of the Statistical Society, London; Dr. W. H. Middleton, Willeton; Dr. Edis, London; Dr. Birkbeck Nevins, Liverpool; Dr. Clement Godson, London; Mr. John S. Wilson, Inverurie; Dr. McKendrick, Edinburgh; Dr. J. B. Sanderson, London; Dr. J. W. Langmore, London; Dr. Ringer, London; Mr. Wm. Fairlie Clarke, London; Dr. H. Charlton Bastian, London; Dr. Bowling, Nashville; Dr. C. J. B. Williams, London; Mr. Henry Lee, London; Cosmopolitan; Dr. Allfrey, St. Mary Cray; A Liverpool Associate; Dr. Copeman, Norwich; Dr. Spender, Bath; Dr. Bartley, Bristol; Mr. W. Carter. Liverpool; Dr. Grabham, Earlswood; A. S. G.; Dr. Griffiths, Sheffield; Dr. Day, Cork; Dr. Rorie, Dundee; Dr. Hayes, Tralee; An Old Practitioner; Dr. Henry Barnes, Carlisle; A Physician; M.; Dr. Macnaughton Jones, Cork; Mr. A. T. Norton, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. A. Fleming, Birmingham; Dr. Wilks, London; Our Glasgow Correspondent; Mr. H. Burdett, London; Our Dublin Correspondent; Dr. Vesey, Magherafelt, Londonderry; Dr. Moore, Harlesden; Dr. Goldie, Leeds; Mr. Eastes, London; Mr. T. M. Stone, London; Our Edinburgh Correspondent; Dr. E. A. Parkes, Southampton; Grandmother; Mr. W. M. Harmer, London; Mr. T. K. Underwood, London; Mrs. Canet, Waterford; Dr. Desmond, Liverpool; Dr. Thomson, Prestgall; Dr. Balthazar Foster, Birmingham; Hope Deferred; Mr. H. M. Morgan, Lichfield; F. E. Z.; Dr. R. J. Lee, London; Dr. Rumsey, Cheltenham; Dr. More Madden, Dublin; Sir W. Fergusson, London; Dr. Claye Shaw, Leavesden; Dr. Henderson, Great Malvern; Mr. A. H. Martin, Carmarthen; Dr. Morell Mackenzie, London; Dr. Collie, London; Mr. Scattergood, Leeds; Mr. Hutchinson, Scarborough; etc.

BOOKS, ETC., RECEIVED.

A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By Alfred Stilié, M.D. Fourth edition, revised and enlarged in two volumes. Philadelphia: Henry C. Lea. London: Trübner and Co. 1874.

The Histology and Histochemistry of Man. By Heinrich Frey. London: J. and A. Churchill. 1874.

Statement of the Reasons why the Contagious Diseases Acts are Opposed. By J. Birkbeck Nevins, M.D. London: John Churchill and Sons. Liverpool: Adam Holden. 1874.

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REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION TO INVESTIGATE THE ANTAGONISM OF MEDICINES.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,
Chairman and Reporter.

VII. The Antagonism between Extract of Calabar Bean and Strychnine.

This subject has been investigated by Nunncley,[*] Vée,[†] and Eben Watson.[‡] The results of these inquiries is that there can be little doubt the paralysing effects produced by the extract of Calabar bean modify, to a considerable extent, the powerful tetanic convulsions caused by strychnia; but there is no proof that recovery may take place after a fatal dose of either the one or the other drug. As, in the progress of this research, the minimum fatal dose of each substance had already been carefully ascertained, the opportunity was taken of testing this question. Twenty-four experiments were made on as many rabbits of nearly the same weight. In the first twelve rabbits, a minimum lethal dose of strychnia was first introduced, and four minutes thereafter a minimum lethal dose of extract of Calabar bean. In the second set of twelve rabbits, the process was reversed: the animal first received the minimum lethal dose of extract of Calabar bean, and four minutes thereafter a minimum dose of strychnia. The results obtained are shortly detailed in the following tables.

Table LXII.—*Showing the Effects of Strychnia and Extract of Calabar Bean on Rabbits. The dose of Strychnia was first introduced; four minutes thereafter the dose of Extract of Calabar Bean.*

No. of Experiment.	Weight of Rabbit.	Dose of the Extract of Calabar Bean in grs.	Dose of Strychnia in grains.	Result.	Remarks.
556	3 lbs. 10 oz.	$\frac{2}{3}$	1-60th	Death	Convulsions; death in 9 minutes.
557	3 lbs. 9⅓ oz.	$\frac{2}{3}$	1-60th	Death	Ditto do. 10 do.
558	3 lbs. 11 oz.	$\frac{2}{3}$	1-60th	Death	Ditto do. 9 do.
559	3 lbs. 9 oz.	$\frac{2}{3}$	1-80th	Death	Ditto do. 8½ do.
560	3 lbs. 11¼ oz.	$\frac{1}{2}$	1-80th	Recovery	8 days thereafter recovered from same dose of strychnia.
561	3 lbs. 7¾ oz.	$\frac{1}{2}$	1-80th	Death	Convulsions; death in 12 minutes.
562	3 lbs. 6 oz.	$\frac{3}{4}$	1-70th	Death	Ditto do. 9 do.
563	3 lbs. 8 oz.	$\frac{3}{4}$	1-70th	Death	Ditto do. 12 do.
564	3 lbs. 9 oz.	$\frac{2}{3}$	1-70th	Death	Ditto do. 15 do.
565	3 lbs. 7 oz.	$\frac{2}{3}$	1-50th	Death	Ditto do. 15 do.
566	3 lbs. 10 oz.	$\frac{2}{3}$	1-40th	Death	Ditto do. 6 do.
567	3 lbs. 9¾ oz.	$\frac{2}{3}$	1-90th	Death	Ditto do. 20 do.

In these experiments, there was no instance of recovery except in Experiment 560; but in this instance the dose of strychnia was not fatal, as the animal survived after the same dose when administered eight days afterwards.

It will be seen from Table LXIII that not only was there no instance of recovery from a fatal dose of strychnia or of extract of Calabar bean, but that death ensued after the introduction of even non-fatal doses of both substances. It appeared, during the progress of these experiments, that the animal was more likely to recover if subjected to the action of one or other of the substances alone, than when both were introduced. At the same time, the character of the symptoms produced by the action of either the one or the other substance are considerably modified by the presence of the presumed antagonist. Thus, the convulsions caused by the action of strychnia on the spinal cord are not so violent, and have not so much of the character of tetanus, when modified by the action of extract of Calabar bean. On the other hand, the prostration and profuse secretion from the air-passages produced by the influence of extract of Calabar bean are not so great, when the animal is at the same time subjected to the action of strychnia. But I have had no example of recovery from a fatal dose of either drug. On the contrary, the advent of death was accelerated. Strychnia and extract of Calabar bean, therefore, are not antagonists in the sense that the administration of the one can save life after the administration of a fatal dose of the other; but they may be considered as antagonists in the sense that the action of the one modifies the symptoms of the other. The extent of the action is not at all comparable to the action of hydrate of chloral and strychnia.

Table LXIII.—*Showing the Effects of Strychnia and Extract of Calabar Bean on Rabbits. The dose of Extract of Calabar Bean was first introduced; four minutes thereafter the dose of Strychnia.*

No. of Experiment.	Weight of Rabbit.	Dose of the Extract of Calabar Bean in grs.	Dose of Strychnia in grains.	Result.	Remarks.
568	3 lbs. 10 oz.	$\frac{2}{3}$	1-60th	Death	Severe convulsions in 10 minutes; death in 15 minutes.
569	3 lbs. 9½ oz.	$\frac{2}{3}$	1-60th	Death	Convulsions in 8 minutes; death in 18 minutes.
570	3 lbs. 11 oz.	$\frac{2}{3}$	1-50th	Death	Convulsions in 12 minutes; death in 21 minutes.
571	3 lbs. 12 oz.	$\frac{1}{2}$	1-80th	Death	Convulsions in 11 minutes; death in 18 minutes.
572	3 lbs. 13 oz.	$\frac{1}{2}$	1-70th	Death	Convulsions in 17 minutes; death in 29 minutes.
573	3 lbs. 8½ oz.	$\frac{1}{2}$	1-56th	Death	Convulsions in 7 minutes; death in 10 minutes.
574	3 lbs. 8¼ oz.	$\frac{1}{4}$	1-80th	Death	Convulsions in 14 minutes; death in 19 minutes.
575	3 lbs. 9¼ oz.	$\frac{1}{4}$	1-90th	Death	Convulsions in 21 minutes; death in 36 minutes.
576	3 lbs. 8 oz.	$\frac{1}{4}$	1-100th	Death	Convulsions in 31 minutes; death in 37 minutes.
577	3 lbs. 10 oz.	$\frac{1}{3}$	1-110th	Death	Convulsions in 32 minutes; death in two hours.
578	3 lbs. 9½ oz.	$\frac{1}{3}$	1-112th	Death	Convulsions in 26 minutes; death in 1½ hours.
579	3 lbs. 8¼ oz.	$\frac{1}{3}$	1-120th	Death	Convulsions in 40 minutes; death in 1 hour.

VIII. The Antagonism between Bromal Hydrate and Atropine.

As preliminary to the investigation of this matter, the physiological action of bromal hydrate was examined and compared with that of chloral and iodal. This inquiry was carried out by Dr. McKendrick, for whose account of the investigation into this subject we refer to the *Edinburgh Medical Journal* for July 1874, where it is given at length. The following were the conclusions arrived at.

1. Bromal hydrate is a more active substance physiologically than chloral hydrate. A rabbit weighing 4 lbs. requires about twenty grains of chloral hydrate to cause death, whereas four or five grains of bromal hydrate are quite sufficient to kill.
2. Chloral hydrate produces, in small doses, or soon after a large dose, marked hyperæsthesia, followed by anæsthesia. Bromal hydrate never produces hyperæsthesia, and anæsthesia only when the animal is in such a state of coma that there is no hope of its recovery.
3. Chloral hydrate does not usually produce great contraction of the pupil. Bromal hydrate always does.
4. Chloral hydrate acts chiefly on the cerebral hemispheres; and never, so far as we know, has been known to cause convulsions. Bromal hydrate acts less vigorously on the hemispheres, and more on the ganglia at the base of the brain and on the spinal cord, the animal frequently dying in a state of opisthotonos.
5. After death from chloral hydrate, fluid is rarely found in the shut sacs of the body. In the case of death from bromal hydrate, fluid is almost invariably found.
6. Chloral hydrate does not usually stimulate the salivary glands to the same extent as bromal hydrate does; but in this instance there are exceptional cases in which chloral hydrate causes excessive secretion of saliva in animals.

The Action of Iodoform.

There is a difficulty in the way of obtaining knowledge of the action of iodoform, on account of its want of solubility in any menstruum suitable for subcutaneous injection. It is scarcely soluble in water, acids, or aqueous alkalies, but it is readily soluble in alcohol, ether, and oils, both fixed and volatile. A number of experiments were performed with a solution, consisting of one grain of iodoform in five grains of alcohol and fifteen grains of water. The effects were very similar to those produced by chloral, with these exceptions. (1) There was no period of hyperæsthesia. (2) There appeared to be a feeling of irritation of the nostrils, as the animals rubbed the nose frequently with the fore-paws. (3) Ten grains subcutaneously injected into rabbits of

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[*] "On the Calabar Bean: its Action, Preparation, and Use." (*Lancet*, 1863.)

[†] *Recherches Chemique et Physiologique sur la Fève du Calabar.* Par le Dr. Amédée Vée. Paris: 1865.

[‡] "On the Physiological Action of the Ordeal Bean of Calabar, and on its Antagonism to Tetanus and Strychnia Poisoning". (*Edinburgh Medical Journal*, May 1867.)

3½ lbs. weight produced profound sleep for a period of four hours. Twelve grains killed rabbits of the same weight in 2¼ hours. The fatal dose thus appears to be smaller than in the case of chloral, and larger than in the case of bromal. (4) There were no convulsions. (5) The pupils were only slightly contracted. (6) There was no fluid in the cavities of the body after death from iodoform, while it was always found after death caused by bromal hydrate, and frequently in cases of poisoning by chloral hydrate.

The physiological action of bromal hydrate, having been examined, the antagonism between it and atropine was next investigated. With this view, the minimum fatal dose of bromal hydrate was fixed for rabbits of average weight. The following table gives the results of these experiments.

TABLE LXIV.—*Showing the Minimum Fatal Dose of Bromal Hydrate for a Rabbit.*

No. of Experiment.	Weight of Rabbit.	Dose of Bromal Hydrate in grains.	Result.	Remarks.
580	3 lbs. 8 oz.	⅛	Recovery	No effect, except slight contraction of the pupil.
581	3 lbs. 10 oz.	¼	Recovery	Do. do.
582	3 lbs. 12 oz.	½	Recovery	Do. do.; slight lacrymation.
583	3 lbs. 9 oz.	1	Recovery	Do. do. do.
584	3 lbs. 10½ oz.	1¼	Recovery	Do. do. do.
585	3 lbs. 9 oz.	1½	Recovery	Do.; quickened respiration; salivation more profuse.
586	4 lbs.	1¾	Recovery	Distress; injected mucous membranes; profuse salivation; extreme contraction of pupil.
587	4 lbs. 1 oz.	2	Recovery	Do. do.
588	3 lbs. 12 oz.	2¼	Recovery	Do. do.
589	3 lbs. 11 oz.	2½	Recovery	Do. do.
590	3 lbs. 10½ oz.	2¾	Recovery	Do. do.
591	3 lbs. 11 oz.	3	Recovery	Nearly asphyxiated; ditto.
592	3 lbs. 9¼ oz.	3¼	Death	Died from asphyxia, from accumulation of mucus in air-passages.
593	3 lbs. 10 oz.	3½	Recovery	After a loug illuess, recovered.
594	3 lbs. 11 oz.	3¾	Recovery	Do. do. do.
595	3 lbs. 11¼ oz.	4	Death	Died in 20 minutes.
596	3 lbs. 11 oz.	4	Death	Diod in 19 minutes.
597	3 lbs. 9¾ z.	4	Death	Died in 18½ miuutes.

From this table it appears that, for a rabbit weighing from 3 lbs. 8 oz. to 3 lbs. 11 oz., the minimum fatal dose is four grains.

The following experiments were then performed with the view of ascertaining whether or not life could be saved from an otherwise fatal dose of bromal hydrate by the subsequent action of small doses of atropine.

TABLE LXV.—*Showing the Results af varying Doses of Atropine when injected simultaneously with Fatal Doses of Bromal Hydrate.*

No. of Experiment.	Weight of Rabbit.	Dose of Atropine in grains.	Dose of Bromal Hydrate in grains.	Result.	Remarks.
598	3 lbs. 9¾ oz.	⅛	4	Death	Died in 20 minutes, with usual symptoms.
599	3 lbs. 10 oz.	1-6th	4	Death	Died in 22 minutes, ditto.
600	3 lbs. 9 oz.	¼	4	Death	Died in 17 minutes, ditto.
601	3 lbs. 8 oz.	½	4	Death	Died in 19 minutes; salivation much less; convulsed.
602	3 lbs. 7½ oz.	⅔	4	Death	Died in 37 minutes, from asphyxia.
603	3 lbs. 6 oz.	¾	4	Death	Died in 40 minutes, ditto.
604	3 lbs. 9 oz.	5-6ths	4	Death	Died in 38 minutes, ditto.
605	3 lbs. 10 oz.	⅞	4	Death	Died in 39 minutes, ditto.
606	3 lbs. 12 oz.	1	4	Recovery	In all of these cases, the excessive secretion was arrested by the atropine. The pupil was contracted in Ex. 606 & 607, but was of medium size in Ex. 608 and 609. Three days afterwards, all were killed in about 20 minutes by the same dose of bromal hydrate alono.
607	3 lbs. 14 oz.	1¼	4	Recovery	
608	3 lbs. 12 oz.	1½	4	Recovery	
609	3 lbs. 9½ oz.	1¾	4	Recovery	

This is a clear example of physiological antagonism; and it is one of the few in which an explanation can be offered. Death from the effects of a minimum fatal dose of bromal hydrate is due almost invariably to the accumulation of saliva in the mouth and mucus in the air-passages. This accumulation is frequently so excessive as to suffocate the animal and cause death by asphyxia. The convulsions which usually occur immediately before death in cases of poisoning by bromal hydrate are due to asphyxia, or the action of venous blood on the nerve-centres. Atropine arrests this secretion, partly by diminishing the action of the salivary glands, and also by causing contraction of the blood-vessels in every part of the body. This contraction diminishes the supply of blood to all the serous and mucous surfaces, and consequently there is less secretion from these surfaces. It is evident, therefore, that small doses of atropine favour recovery in cases of poisoning by bromal hydrate.

As it was manifestly a matter of considerable practical importance to ascertain how far non-fatal doses of bromal hydrate could influence fatal doses of atropine, ten experiments were performed with regard to this point. The chief results of these are detailed in the following table.

TABLE LXVI.—*Showing the Results of varying Doses of Bromal Hydrate when injected simultaneously with Fatal Doses of Atropine.*

No. of Experiment.	Weight of Rabbit.	Dose of Bromal Hydrate in grains.	Dose of Atropine in grains.	Result.	Remarks.
610	3 lbs. 14 oz.	½	3½	Death	Died in 18 minutes; usual phenomena following atropine.
611	3 lbs. 13½ oz.	¾	3½	Death	Died in 19 minutes; ditto.
612	3 lbs. 12 oz.	1	3½	Death	Died in 27 minutes; ditto; pupil not so widely dilated.
613	3 lbs. 11 oz.	1¼	4	Death	Died in 34 minutes; ditto.
614	3 lbs. 11½ oz.	1½	4	Death	Died in 33 minutes.
615	3 lbs. 12 oz.	1¾	4	Death	Died in 40 minutes.
616	3 lbs. 13 oz.	2	3¾	Death	Lied in 37 minutes.
617	3 lbs. 9 oz.	2¼	3¾	Death	Died in 34 minutes.
618	3 lbs. 9¾ oz.	2½	3¾	Death	Died in 20 minutes.
619	3 lbs. 9½ oz.	3	3	Death	Died in 10 minutes.

These experiments were not encouraging, as all the animals died. They survived for a longer time when the doses of the drugs were in the proportions of from 1¼ to 2¼ grains of bromal hydrate to 3¾ or 4 grains of atropine. Beyond these limits, death occurred earlier. It would therefore appear that although, as seen from Table XLV, small doses of atropine may save life after fatal doses of bromal hydrate, the converse does not hold good; that is, life is not saved after fatal doses of atropine by the subsequent action of bromal hydrate.

[*To be continued.*]

A CRITICAL EXAMINATION OF DR. MUNRO'S VIEWS ON MALARIAL FEVERS AND CHOLERA.

By W. C. MACLEAN, C.B., M.D.,
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[*Concluded from p. 766 of last number.*]

WE now come to the most important part of Dr. Munro's paper, that which deals with the differential diagnosis of malarial fevers, yellow fever, cholera, and heat-apoplexy. Dr. Munro, it is hardly necessary to repeat, maintains that they cannot be differentiated at all; that they are in fact merely manifestations of the same disease. When we look for the evidence on which so wide a generalisation is based, we find it to be of the most unsatisfactory kind, such as no pathologist in the present day can accept as scientific evidence at all. It amounts in fact to this, that, because the above named diseases have certain phenomena in common, they must be alike in their origin—be in fact the same disease. Dr. Munro has constructed a table, in which he groups together what he conceives to be the leading and characteristic symptoms of the diseases above named.

The first thing that will strike any one who has paid attention to the differential diagnosis, more particularly of febrile diseases, is, that this table might have been greatly extended, so as to embrace many more diseases having symptoms bearing at least a superficial resemblance one to the other, without advancing the argument a single step.

Dr. Munro, at page 266, intimates that, in the above diseases, he has made *post mortem* examinations, and he bases his opinion as to their identity, in part at least, on the results. Now, when we are asked to accept such a statement as this on important points in morbid anatomy, we have surely a right to expect that the particulars of the anatomical investigation should be given organ by organ. Where were these *post mortem* examinations made? and where were the results recorded? Dr. Munro will probably reply, and doubtless truly, "In the East and West Indies, and the records are to be found in the hospital registers of the various regiments in which I have served". Granting all this, can our author reasonably expect pathologists, who have before them the records of carefully made observations by a number of independent experts on the morbid anatomy of the diseases of which Dr. Munro treats, to throw them aside, and accept in their stead a more general statement unsupported by a single example, drawing, or preparation? Nor is this all: pathologists can refer to museums, which are not far to seek, rich in specimens of the morbid anatomy of tropical diseases, and I greatly mistake if enough be not there found to satisfy their minds that Dr. Munro's doctrine finds no support from morbid anatomy. A man may die of cholera who has suffered previously from some malarial fever, and his organs after death will exhibit the plain traces of the antecedent disease; which, however, has no more to do with the cholera which killed him than the vaccination cicatrix he may happen to bear on his arm. But let us take the case of a man dead of cholera in this country, and compare what we see after death with what is observed in the organs of a man dead of any form of pernicious malarial fever, and see what support Dr. Munro's doctrine can get from the result. Passing from such generalities, let us look a little more closely at the differential diagnosis of, *e.g.*, yellow fever.

If Dr. Munro, before committing himself to the startling statement it is the object of this paper to controvert, had looked into the modern literature of this terrible disease, at the careful observations on its natural history, modes of propagation, symptoms, morbid anatomy, and treatment, by La Roche, Bellot the younger, Lyons, McWilliam, Smart, Donnet, Macdonald, and others, and to the observations of some of the most eminent physicians in the United States, and, let me add, the recorded experience of the French surgeons in the ill-fated expedition to Mexico, I cannot think we should ever have heard of the identity of yellow and malarial fever from his pen. It is not without hesitation that I venture to state the points of difference which, chiefly drawn from the authorities named above, are now the common property of the profession. Many of them are to be found in text-books of authority, notably in the great work of my colleague Professor Aitken. Specific yellow fever has a habitat of its own, from which it has often been imported into regions lying widely outside its endemic zone; but it has never established itself permanently as an endemic disease in any part of the globe with a mean temperature below 72 degs. Fahr. Dr. McWilliam has even shown that it is driven from the shores of intertropical Mexico between the months of November and March, when the mean temperature does not exceed 71 deg. Fahr. It is portable, and has, in a great number of well authenticated cases, been transported in ships to places widely apart. It is contagious. It rarely attacks the same persons twice. The negro races are seldom attacked, "and as colour of race deepens liability to attack lessens". It evinces a curious disposition to confine its ravages within a limited area, to which the name of "tainted district" has been given, often acting with extreme intensity within those limits usually found to be in an unhygienic condition chiefly from fæcal impurities; hence it is classed by Dr. Parkes among fæcal diseases. The above, on a single point, is not true of malarial fevers, not even as regards race; for, if the negro be less liable than the white man to malarial fever, the dark races of India, as is well known, enjoy no immunity from its attacks.

Again: contrast the mortality of malarial fever with that of specific yellow fever. Out of 292 cases of common malarial fevers in the squadron in the West Indies station, only 4 proved fatal; while, out of 183 cases of yellow fever in the same squadron on the same station, 72 proved fatal; "a difference", says my colleague Dr. Macdonald, "in the relative mortality of the two diseases which, even if there were no other evidence, sufficiently stamps the one as specifically different from the other". This enormous difference in the death-rate of the two diseases was also noticed, and used as a means of diagnosis by the French surgeons of the expedition to Mexico.

Turning to the symptoms, the same striking difference on important points is equally observable. Malarial fevers are *par excellence* paroxysmal, yellow fever is continued. Remittent fever (the form commonly confounded with yellow fever) has invariably a morning remission; yellow fever has not; the thermometric curve in the two diseases is quite different. Hæmorrhage from the stomach in remittent fever is an exceptional occurrence; in yellow fever, the range of hæmorrhage is unexampled and the rule, proceeding from mouth, eyes, ears, nose, bowels, and often even the urinary passages. Albuminous urine is exceptional, even in the worst remittents; rarely ever absent in the yellow fever particularly within its proper zone. The therapeutic test is of itself almost conclusive. Over malarial fevers quinine has a power that cannot be disputed; in yellow fever it is powerless. Death, in the worst remittents, is hardly ever seen before the seventh or eighth day. In specific yellow fever, it is common on the third day. In malarial fevers, the spleen is always affected; in specific yellow fever, it is the liver that suffers.

If these things are so—and they rest on the authority of men who have had opportunities of studying the two diseases in the regions where they prevail—it is, I think, impossible to admit that diseases so different in their origin, modes of propagation, symptoms, progress, morbid anatomy, and mortality, can be the same.

It would be easy to take cholera and compare it with malarial fevers in the same way, and to arrive at a like conclusion; but I have to keep in mind that I cannot command unlimited space in this JOURNAL, neither can I draw on the patience of readers already, I fear, sorely tried by the length to which my remarks have extended. Fortunately for themselves, practitioners in this country are not called on to devote much time to the study of yellow fever. With cholera they are more familiar; it has forced itself on their attention more than once; it will probably do so again. With the history, symptoms, and pathology of this pestilence, they are better acquainted. They know that it, too, has a "habitat", a "birth-place", a "home", an "endemic area" of its own, in a region of the earth far apart from that where yellow fever takes its mysterious origin; that from this area, under favouring conditions as yet veiled in obscurity, it starts on its "tours of invasion", for the most part following the great highways of human intercourse. They know of any particular epidemic, to a day, the time it took to reach Europe; the route by which it travelled, or rather, perhaps was "carried"; the cities it visited, and, in a general way, the number of victims it destroyed in its progress. Something, too, they know about some at least of the means by which it is propagated, and that what passes from the intestines of those affected by it is one of the most active of them. They know its symptoms, its habit of attacking "like a thief in the night", the vomiting, the characteristic purging, the collapse, the cold surface, the abnormally high internal temperature revealed by the thermometer in the rectum, the suppression of urine, the appalling rapidity with which it does its work, and the mortality, which may be set down as from 50 to 60 per cent of those affected; they know (too well, alas!) that there is no specific treatment for it. With this knowledge, and with what they know of malarial fevers, they can, better than I can do it for them, contrast the history, symptoms, and pathology of the two diseases, and give judgment accordingly, whether the doctrine we have been examining be true, or, with me, decide that it has no substantial foundation of scientific evidence on which to rest.

In conclusion, I repeat that, had this been merely a matter for curious speculation, I would have left it to others who have time and inclination to discuss such questions. But it is more than this; its right solution is one of vital importance to great communities, and in particular to fleets and armies. A regimental surgeon holding the Munro doctrine, and having the "courage of his opinions", would, in the event of his regiment being invaded by yellow fever, act consistently, and leave it in the "tainted area"; and, holding that this was of the same nature as malarial fever, and therefore not contagious, he would treat his sick within the same area, crowding them, perhaps, as on a late occasion at Bermuda, into one hospital, to "eject black vomit over one another", as was done in that notorious instance, and, spite of his best efforts—too late put forth—to die. In like manner, a naval surgeon, imbued with the same doctrine, if his ship were boarded by "yellow Jack" within his favourite zone, would never think it his duty to urge his captain to hasten into higher latitudes and a lower temperature, where alone there is safety for the crew.

OTOLOGICAL MEMORANDA, BEING CLINICAL OBSERVATIONS ILLUSTRATIVE OF THE DISEASES AND INJURIES OF THE EAR.

By JAMES PATTERSON CASSELLS, M.D., M.R.C.S.Eng., etc.,
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I.—On the Presence of Foreign Bodies in the External Meatus, and their Removal.

THAT the presence of a foreign body in the external auditory meatus is looked upon as injurious to the organ at least, if not ultimately fatal to the patient, and that, therefore, its immediate removal is a thing to be attempted and, if possible, accomplished at all hazards, are the conclusions to which, even in the present day, inexperienced and careless observers at once arrive. The object of this communication will be unattained, if it fail in showing that these conclusions are erroneous. Doubtless, the fear thus engendered has prompted and suggested all the methods and instruments, with few exceptions, devised for the removal of foreign bodies from the ear, from the earliest times even to the present day. Indeed, it may be affirmed with justice, that such cases, more than any other affection of the ear, have stimulated the inventive faculty of surgeons. Now, what, it may be asked, has been the result of this misdirected energy? If the present can be accepted as any criterion of the past, it may be safely said, that there has not been any remarkable gain. On the contrary, it is not doubtful that there have been many failures, not a few ears destroyed, and sometimes even the death of the patient, brought about by the expenditure of this misapplied talent.

I am far, indeed, from saying that cases do not now and again arise presenting unusual difficulties, and which in consequence may demand the employment of one or other of the various methods devised by ancient and modern surgeons, even to the adoption, in certain circumstances, of the suggestion of Paulus Ægineta—revived in recent times by Von Tröltsch—to open the meatus by detaching the auricle; but I do say, that such cases are happily rare.

In connection with this subject, I may be permitted, *en passant*, to remark that two things have always forcibly impressed themselves upon my notice: the first being the fondness of those whose special knowledge is limited, to surround with self-created difficulties such a simple matter as the removal of a foreign body from the external ear; and the second is the readiness with which such operators "lose their heads" in the presence of their own creations. In such instances, indeed, "Blinder Eifer schadet nur": more than once, it has been my painful duty to censure such blind zeal.

Although the object of this communication is not to speak in detail of the various means in use for the removal of foreign bodies from this canal, I cannot allow the opportunity to pass without commending the excellent agglutinative method recently proposed by Löwenberg; the distinguished Parisian otologist, as one that offers a fair prospect of success, when the simple means presently to be mentioned have failed to effect the purpose of the surgeon. In his (Dr. Löwenberg's) hands, in one case, it sufficed to accomplish the removal of a foreign body irremovable by every other means. The object of these notes is rather to caution general practitioners, into whose hands such cases usually come at the outset, that measures which savour in the smallest degree of violence are inadmissible in the operation of removing a foreign body from the ear. Further, I may point out that elaborate instruments are not usually required, and that, when employed, their use, for obvious reasons, is always hazardous, and at no time, even in the best hands, free from danger.

The means really necessary are of the simplest kind. A *good ear-syringe*, of about eight ounces' capacity, and plenty of tepid water, with, perhaps, a piece of fine silver wire, are all I use. Good illumination of the whole canal is essential; for the first step in every case is to assure oneself *beyond doubt* that there is a foreign substance in the canal; the lack of this precaution, needless though it may at first sight appear, has led to humiliation and disaster. If in any case, thus equipped, the surgeon fail, *after repeated attempts*, to effect, by *proper syringing*, the removal of a body lodged in the meatus, he seldom succeeds with instruments. Further, where an instrument will succeed, a stream of water *properly directed* will also succeed without the attendant risks of instrumental interference. "No one", quoting the words of my teacher, "who remembers how great is the difficulty of abandoning a seemingly simple task, in which he finds unexpected difficulties, probably under the eyes of anxious friends, before whom an apparent failure will be intolerable, will suffer himself to take up any instrument for the removal of a foreign body from the ear, until after the most patient efforts to avoid it, and the most serious consideration of its absolute necessity". (See *The Questions of Aural Surgery*, by J. Hinton, 1874). That is the teaching of an otologist of wide and varied experience, and, coming as it does from a clinician accustomed to close and accurate observation, is pregnant with a hope of better things in the future for such cases. For the reassurance of those who dread the consequences of the lodgment of a foreign body in the meatus, it may be stated, with almost the force of an axiom, that, if no violence have accompanied either its introduction or its attempted removal, its presence is innocuous.

CASE I. A boy, aged 5, put a large horse-bean into the left meatus; in his attempts to remove it, he wedged it more firmly in. The mother attempted its removal by syringing, and failed. The bean, imbibing moisture, increased in bulk, wedging itself more firmly, but occasioning not the least pain in the organ. After two weeks, he was brought to me. I found the bean firmly lodged in the cartilaginous portion of the canal, from which, by gentle traction, it was removed without much difficulty. This portion of the canal was dilated to double its usual calibre by the pressure of the swollen bean. The organ was in no respect damaged; the bean had lodged in the canal about three weeks.

CASE II. A little girl, in play, put a fragment of a broken tea-cup into her left meatus; it was triangular in shape, and its edges were sharp. Repeated violent attempts to remove it failed. The child was then brought to Professor Politzer of Vienna, who found that the result of the violent measures had been to wedge the fragment of china into such a position, that it was immovable by any justifiable force capable of being applied. The result of the violent means undertaken at the outset for the removal of the offending body had been to set up inflammation of the membranes of the brain, from which the child was suffering at the time of being seen by Professor Politzer, and from which she died in a day or two. The result of the *post mortem* examination justified the remarks and opinions expressed by the distinguished professor: viz., that the death was due, not to the foreign body, but to the efforts undertaken to remove it. It was while I had the honour of acting as the pupil and private assistant to Professor Politzer that I examined the parts. Even after death, it was found impossible to remove the body from the meatus in the ordinary way, and it became necessary to divide the organ before this could be accomplished.

CASE III. A bricklayer, lying on his side in a flue, had a portion of brick forcibly driven into his left ear. When he presented himself at my *clinique*, shortly after the occurrence, he complained of slight pain alone. On examination, there was seen to be a wound of the membrana tympani, but no foreign body. At first sight, it appeared as if the fragment of brick had passed through the wound, and was now lodged in the tympanum. This proved, however, not to be the case, for a more careful examination showed that the foreign body, which was very small, was lodged in the deep sulcus formed by the junction of the inferior wall of the meatus with the annulus tympanicus. Careful syringing removed it at once, and the case did well.

CASE IV. A young girl presented herself with the history of having been deaf in the right ear for about four years. She had occasional pain, but no other annoyance. On examination, the case appeared to be simply one of ceruminal accumulation. On removing what appeared to be a mass of cerumen, an ivory shirt-button was seen lying in the canal. It was readily removed by further syringing. On seeing it, the girl confessed to having put it into her ear between four and five years previous to the time of its removal. The organ was unaffected. The case did quite well.

CASE V. A little boy put a broken shirt-button into his ear, from whence several unsuccessful attempts under chloroform were made to remove it. When I saw the case in consultation, the button had been lodged in the canal about a week, and the tissues were swollen and much lacerated. I could not, on that account, see the foreign body; but the statements of the medical gentlemen present left me in no doubt as to such a body being there. I counselled prudence, and to desist meantime from further attempts at removing the button; suggesting the daily use of the syringe after the damage done to the tissues had repaired itself. This advice was followed, and in a few days the button was syringed out. I did not see the case after consultation, and suppose, therefore, it did well.

CASE VI. A young lady had some gravel thrown at her, a portion of which entered the left meatus. It remained there, and was seen by the mother. The patient was next seen by a medical gentleman in the village, who declined to interfere, suggesting that the case be sent to an aural surgeon. Unfortunately, this advice was not followed. She was taken instead to a practitioner in a neighbouring watering-place, who also said that he saw the pebble, and attempted its removal under unfavourable circumstances, both as to light and appliances. He, however, expressed an opinion that, if not removed, it was sure, sooner or later, to kill the patient, and arranged to call next day, with the object of removing it—an arrangement willingly acceded to by the distressed parents. Next day came, and with it the medical gentleman referred to, armed *cap-à-pie* for the removal of this unoffending pebble! Chloroform was given—which was right; and for two hours thereafter the "most violent efforts" were made to remove the stone—which was certainly wrong. That the fragment of stone was not removed is not surprising, when it is stated that blood flowed freely from the orifice of the canal during the whole time the attempts were being made. That the syringe was never used, even to clean out the passage, seems an incredible statement, but it is nevertheless quite true. As a fitting termination to this disgraceful proceeding, the operator left, after taking his fee, advising that nothing should be done. It was at this stage that the case was seen by me, on the advice of the usual town family medical attendant. I found great laceration and mutilation of the soft tissues of the canal, and, from the fact that water, in syringing out the meatus, passed freely by the nasal passages, I inferred rupture of the membrana tympani. I could not see the foreign body; and, while I did not in the smallest degree doubt the statement of the parents, I declined, under the circumstances, to accept it as other than evidence that at one time a foreign body had been in the passage. Antiphlogistic measures were used, and the parts allowed to recover from the consequences of the violence inflicted on them as described. In about a week, it was concluded that the parts were almost normal, and, the swelling having nearly subsided, the stone was seen lying imbedded in the membrana tympani, which was highly congested and thickened. In a few more days, seeing that the syringing had failed to remove it, and supposing the tumefaction of the tissues to have completely subsided, it was determined to attempt its removal by passing a loop of wire over it. The patient was chloroformed; but, on attempting to carry our intention into effect, it was found that the stone was more firmly imbedded in the tissues than at first sight appeared, and that its diameter was greater than that of the cartilaginous canal; in other words, that this latter was still swollen, and that, were it possible to snare the pebble, it would be difficult, if not impossible, to remove it through the narrowed passage. Prudence, therefore, counselled further delay and the continued use of the syringing. This was followed by the happiest result; in about ten days, an irregular-shaped pebble nearly as large as a pea came away by the syringing alone. As inferred, the membrana tympani was ruptured in the posterior half, and in this rupture an angular-shaped projection of the stone had lodged. The case eventually did well.

CASE VII. A poor woman, terror-stricken in the face, and in the utmost distress of mind, applied at the *clinique* to have a pin removed from the left ear. She declared that it was in the passage, and her carefulness to avoid any jarring of the body, lest it might in consequence be shaken deeper into the ear, showed how real were her sensations. When examined, no pin was to be found. The membrana tympani had a small puncture at its anterior inferior quadrant; doubtless, the wound made by the pin, which had thereafter fallen out unperceived by the patient. The pain occasioned by this slight wound had given rise to the sensations and the terror of the poor woman.

CASE VIII. A boy, aged 3, was supposed to have put a pin into his right ear. He was taken by his nurse to a druggist who, without seeing the pin, attempted its removal, and, of course, failed. He was then seen by the family medical man, who also attempted to remove the pin, and failed likewise. Suspecting that the statement of the nurse was ill-founded, he sent the child to me. An examination of a few seconds sufficed to ascertain the actual state of the case. There was no pin in the canal, and no evidence that such a body had been there. The damage done to the soft tissues by the attempts at removal above referred to, necessitated treatment for some days, but the child recovered.

CASE IX. A boy, aged 10, told his parents that he had inserted a bean into his left ear. His mother thought that she saw it in the depths of the canal, and wished to syringe it out with tepid water. His father, with commendable prudence, refused to have the ear touched unless by a competent person, and he was brought to me next day. Not only was there no bean in the canal, but evidence that such a foreign body could not by any possibility have been placed there as stated by the boy. The ear was healthy in every respect.

CASE X. A boy, aged 12, was brought to me by his father, with the statement that his son, in using a pin as an ear-pick, had allowed it to slip into the right ear; further, the mother of the patient had seen it there. On examination, there was no pin in the canal and no laceration of its tissues. The boy had an affection of the tympanum, which, doubtless, had given rise to the disordered sensation in the canal, for the relief of which the pin had been used. Permitting it to slip from his fingers he had supposed it to enter the canal and to be lodged there. The uneasy sensations still continuing had strengthened this supposition, and were by him regarded as evidence of the presence of the pin in the meatus.

The practical lessons which these remarks are intended to teach are as follows. 1. Make sure, before beginning to remove a foreign body, that there is one present. 2. Remove it by the simplest means—syringe and water; if you fail, "try again". 3. In all attempts, eschew violence. Finally, remember there is no clear evidence that a foreign body left in the meatus has proved fatal, but there is abundance to prove that the efforts made to remove such bodies have caused the death of the patient.

II.—NOTE ON FUNGUS MEATUS AUDITORII EXTERNI (ASPERGILLUS).

In this JOURNAL for May 23rd I had the honour of placing on record, for the first time in Great Britain, the discovery of cases of aspergillus of the external auditory canal. I now desire to intimate, that, in June last, I found *aspergillus nigricans* in a case of ear-disease. I merely wish now to record the fact of the discovery of this variety of ear-fungi, because the case itself will form the basis of a communication entitled "Myringomycosis Aspergillina and Otitis Parasitica"; which communication I hope to have ready for the January number of the *Glasgow Medical Journal.* I also expect to give an illustration of the fungus. I, therefore, beg those of the profession who are interested, to read that communication when it appears; meantime, I may say here, that the case referred to was, in many points, a most interesting one.

During the two years in which the lady suffered from the fungus she was a confirmed invalid through the ear-disease alone. Happily the success of the treatment adopted was so great, that in one week after I was consulted, she was practically rid of her troublesome and painful disease. For precaution's sake I kept her under observation for a few weeks, and then dismissed her, quite restored in her general health, and completely cured of the fungus.

I may here state, that since I wrote my first "note" on this subject, I have examined the plate in Beale's work, the *Microscope in Medicine*, which is intended to represent an ear-fungus. (I referred to this case in my "note.") The result of that re-examination has satisfied me that the case ought to be rejected, on the ground that the drawing has not a single characteristic belonging to any of the true ear-fungi.

ON A CASE OF STRANGULATED FEMORAL HERNIA,

REDUCED BY LARGE INJECTIONS OF OIL, AFTER STERCORACEOUS VOMITING HAD EXISTED MORE THAN THREE DAYS.[*]

By WILLIAM ADAMS, F.R.C.S.,
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THE case which I have thought worthy of being brought under the notice of the Society this evening, is one of great practical importance in reference to the treatment of strangulated hernia, and also of some cases of obstruction of the bowels in which the cause of obstruction is more obscure. The treatment essentially consists in the injection of a very large quantity of mixed oils—viz., two quarts of olive-oil, three ounces of castor-oil, and three ounces of turpentine, mixed together; and this may require to be repeated. The injection is slowly performed, and a long gum-elastic tube, about nine or ten inches in length, is used. This practice of injecting oil was first brought under my notice by my friend Dr. Kavanagh of Deptford, who adopted it successfully in a case of strangulated femoral hernia, the details of which I will now read to the Society.

On Thursday evening, March 13th, 1873, I was sent for by Dr. Kavanagh to a case of strangulated hernia at Deptford. I found the patient, Mr. B., aged 48, suffering from strangulated femoral hernia on the left side. The hernia was small, but well defined, and the symptoms were severe. All efforts to return the hernia by the taxis, aided by the warm bath, etc., had failed, and stercoraceous vomiting had set in at 4 P.M., the day previously (Wednesday).

The history of the case was, that on Sunday previously (March 10th) he had eaten heartily of veal for dinner, and that on Monday he did not feel well. He naturally attributed it to indigestion, and on Monday night took some aperient pills.

On Tuesday the 11th, the bowels acted slightly, but he felt ill, and complained of pain in the abdomen. He had no pain in the situation of the hernia; but was aware of the existence of the rupture, which, he said, had existed for thirty years, and had first occurred after being thrown out of a gig. He was doubtful whether it had ever been completely reduced, though it fluctuated in size, and he had never worn a truss.

On Wednesday the 12th, he complained of great pain in the abdomen, and vomiting set in; and at 4 P.M. this became of a stercoraceous character. Attempts were made by Dr. Kavanagh to reduce the hernia by taxis in the warm bath, but without success; and the patient persisted in his idea that the obstruction was in the upper part of the bowel, as there was still no pain in the rupture, and the pain was referred to the upper part and right side of the abdomen.

On Thursday the 13th, the patient remained in the same state, and in the afternoon I was telegraphed for. At 8 P.M., I saw him, in consultation with Dr. Kavanagh, who at once agreed with me in the propriety of operating. The patient, however, obstinately refused the operation, principally from his conviction that the obstruction was seated higher up in the bowels, there still being an absence of pain at the seat of hernia. After making an unsuccessful attempt to reduce the hernia by taxis, I returned to town.

On Friday the 14th, the patient remained in the same state, stercoraceous vomiting continuing every ten minutes. He still refused the operation. All nourishment, in the form of beef-tea, brandy, etc., was rejected as soon as taken. Dr. Kavanagh resorted to the injection of oil, but without success, the oil being immediately rejected.

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[*] Read before the Medical Society of London.

On Saturday afternoon the 15th, I saw him again, in consultation with Dr. Kavanagh. The patient was then in an extremely exhausted condition, beef-tea and brandy being rejected as soon as taken; pain still continuing over the central and upper part of the abdomen, and absent at the seat of hernia. The abdomen was tense, and there was tenderness on pressure, but this did not exist in any marked degree in the neighbourhood of the hernia, so that the patient still held to his opinion that the obstruction was higher up in the abdomen. After a conference had been held with the members of the family, a very reluctant consent might have been wrung from the patient, but his wife still obstinately objected; and as, from the extreme exhaustion and abdominal pain, little hopes of success could be held out to the family, the operation was not performed, and I had no expectation of seeing him alive again.

On Sunday the 16th, I saw the patient again with Dr. Kavanagh, and was surprised to find that the hernia had been spontaneously reduced in the night (about 2 A.M.), and that the bowels had been copiously relieved. The patient was in a very exhausted condition, but free from abdominal pain and tension, and he had been able to retain a considerable amount of nourishment, having taken as much as half-a-pint of brandy and two pints of beef-tea.

In explanation of this extraordinary recovery, Dr. Kavanagh informed me that, seeing the apparent hopelessness of the case, he again resorted to the plan of injecting large quantities of oil. On the Saturday night, between eleven and twelve o'clock, he slowly injected into the bowel, by means of a long tube, nine or ten inches in length, two quarts of olive-oil, three ounces of castor-oil, and three ounces of turpentine mixed together. The effect of this was that, about 2 A.M., the hernial tumour receded completely, and between three and four o'clock the bowels were copiously relieved; beef-tea and brandy were now retained on the stomach. The patient remained in an exhausted and drowsy condition for some hours.

From this period, the recovery was rapid, and in a week he was able to resume his business avocations. He has worn a truss ever since, and is now in good health.

Dr. Kavanagh informs me that in three other cases of intestinal obstruction, accompanied with stercoraceous vomiting and intense abdominal pain, but without external hernia, he has successfully adopted the same practice of persevering with the injection of large quantities of olive-oil, mixed with castor-oil and turpentine. In one of these cases, the symptoms had existed eleven days before he was called in; and the success was complete. In all the cases, the injections were not retained at first; nevertheless, they were repeated at intervals, and at last were retained; and to this steady perseverance no doubt much of Dr. Kavanagh's success in these cases has been due.

RETROVERSION OF THE GRAVID UTERUS: RETENTION OF URINE: RECOVERY.

By ARTHUR W. EDIS, M.D.,

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M. J., aged 27, married six years, mother of three children, the youngest eighteen months old, when about four months pregnant, whilst lifting one of her children from the ground, experienced sudden inconvenience in the lower abdomen, necessitating her lying down for a time. After this, she felt nothing until later in the evening, when, on attempting to pass urine, she found she was unable to do so. Various simple remedies were tried; and the patient, after passing a restless and uncomfortable night, sent for her medical attendant, who lived four miles off. Diuretics, in combination with hyoscyamus, were prescribed, and the patient was enjoined to remain quiet. On the following day, no urine had been passed. The patient was in a state of extreme distress, feverish, with constant desire to pass urine, and a sense of distension in the lower abdomen. Hot poppy-head fomentations, with opium internally, were now ordered, and the patient was visited night and morning; but no examination of the abdomen was made, or any attempt to relieve the bladder by means of the catheter attempted. Some dribbling of urine took place during the evening; but the straining, bearing down, and general distress, continued as before. A second night was passed in a semi-comatose half-delirious state, from the effects of opium; and on the following morning I was requested to see her. I found her lying in bed, evidently in much agony. The pulse was over 120; the skin dry, hot; the abdomen was enormously distended, dull on percussion, and fluctuation was distinct.

On examining *per vaginam*, the enlarged fundus uteri was found to be impacted, resting on the floor of the pelvis; the os uteri, scarcely detectable, lay high up behind the symphysis pubis. The nature of the case was self-evident. After some little difficulty, a No. 8 gum-elastic catheter was passed, and two large chamber-vesselsful of turbid urine were drawn off. After waiting a short time to allow the patient to recover from the shock, she was supported in the knee-shoulder position, and pressure made *per rectum* on the fundus uteri, care being taken to direct it laterally, so as to avoid the sacral promontory. Reposition was thus effected without any serious difficulty, and the patient was enjoined to lie as much as possible in the prone position. No recurrence of the displacement took place. With the aid of hot fomentations, the patient was enabled to pass urine without further resort to the employment of the catheter. She convalesced rapidly, and went her full time.

REMARKS.—I have purposely suppressed mentioning any names. The case is chiefly of interest, as showing the necessity of a local investigation in all cases of retention of urine in the female. The fact of her being pregnant had not been ascertained previously to my seeing her. Dr. Gervis narrated two fatal cases of this nature at a recent meeting of the Obstetrical Society. The subject is well worthy of being brought prominently before the attention of the profession; and the narration in detail of cases in the columns of the JOURNAL would, I feel sure, contribute much to a better understanding and a more extended knowledge of this not unfrequent form of uterine displacement.

THERAPEUTIC MEMORANDA.

LOCAL TREATMENT OF LICHEN URTICATUS.

IT will be agreed that there is a form of skin-disease specially affecting children, characterised by wheals, papules, and severe itching, worse at night, yet independent of discoverable parasite. It may be acute or chronic, is generally obstinate, liable to recur after intervals of relief, and is so distressing that it seems well to record good results obtained from combinations not in ordinary use. I refer to two ointments; one containing equal parts of calomel ointment and extract of belladonna; the other, storax, according to this, which is a recognised formula: ℞ Storacis oz. i; ceræ flavæ gr. 120; olei olivæ fl. oz. ss. Misce secundum artem. In illustration, I subjoin two cases out of twelve observed.

CASE I (acute).—Ellen H., aged 16 months, had been weaned one month, when she got diarrhœa. Soon afterwards, she "came out all over like nettle-stings", and had severe itching, worse at night, and preventing sleep. She had had previous good health, and was fairly nourished. She was vaccinated at four months. She had eleven teeth, and one pressing; and was fed on milk. The rash now was of scattered papules on the trunk and limbs; wheals came out at times; the feet were free. The parents and other children were not at all affected.—October 12th. She was ordered to use one soft-soap bath, weak; then to rub in unguentum hydrargyri ammoniatum.—October 16th. The bath gave much pain; there was no relief. ℞ Unguenti hydrargyri subchloridi, extracti belladonnæ, āā partes æquales. Signa: To be painted on night and morning. An oatmeal-bath was also ordered.—October 21st. There was much relief. The urine was hot. A mixture of acetate of potash was ordered.—October 30th. There was very much relief. She slept well.—November 6th. She was clear till yesterday, when some relapse occurred, which readily yielded to the same remedies.

CASE II (chronic).—Albert P., aged 2¼ years, came under notice on August 10th, 1874. He had attended the Children's Hospital twelve months previously with an attack similar to the present. He had then suffered one week, and had been vaccinated in the week before that. He remained a patient for *five months*, when he got some relief, but was never quite free, and had been worse lately. The body and limbs were covered with scattered papules, which itched violently, worse at night. Sometimes a rash like "nettle-stings" came out. The hands and feet were free. The mother was cleanly; neither she nor her two other children had had any rash whatever. The child was well nourished and cared for. He got at first sulphur ointment and quinine mixture; on September 25th, rhubarb and magnesia mixture, and ammoniated mercurial ointment; and on October 9th, mixture of chlorate of potash, and carbolic acid ointment.—October 16th. Up to this date, there was no marked relief. Storax ointment was ordered to be applied night and morning.—October 30th. The mother reported much improvement from the time of commencing the last ointment; he had much better nights.—November 13th. Improvement continued. The child seemed well.

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COMBINATION OF DIGITALIS WITH BROMIDE OF POTASSIUM IN DELIRIUM TREMENS.

In a very interesting article on the Management of Delirium, by Dr. Milner Fothergill, after mentioning the treatment of delirium tremens by digitalis, he states that "probably in such cases the combination of digitalis with bromide of potassium and some of the vegetable narcotics is indicated". Having seen a very striking instance of the truth of this surmise, I am induced to give a short notice of the case. On June 1st, 1873, at midnight, I was requested by Mr. Sleman to visit Mr. E. along with him. He mentioned that the patient had sustained a fracture of both bones of the leg some days previously; that delirium tremens had occurred shortly afterwards; and that he believed him to be dying. I found him with all the symptoms of delirium tremens in a very aggravated degree, his pulse being so rapid and feeble that I could not count its frequency. His pupils were widely dilated. The skin was covered with profuse perspiration, and the whole muscular system was in constant agitation. He had not slept for several nights; was constantly muttering, being now unable to shout any longer; and persistently refused any nourishment. The bladder was considerably distended, and by pressure over the hypogastrium was completely emptied. He was ordered to have, every two hours, half-drachm doses of bromide of potassium, with the same quantity of tincture of digitalis; and to be fed with strong beef-tea and milk at frequent intervals. Next morning, he was much relieved, though he was still delirious. He had slept several times during the night, and was now taking some nourishment. The medicines were continued less frequently till June 4th, when I discontinued my attendance, as he then seemed completely out of danger. He made a good recovery, with an useful limb. R. W. Crighton, M.D., Tavistock.

TREATMENT OF HYDROPHOBIA.

In the Journal of November 21st, appears a letter from Mr. W. Wallis of Hartfield, commenting upon some remarks of mine, in my last communication, respecting the case of Mary Garrett. Since reading his letter, I have again seen my informant, in whose family she lived as a servant. He affirms his previous statement to me, having had the particulars of her case several times from herself. From this conflicting testimony, therefore, the case becomes unimportant. Neither Hippocrates, Celsus, nor Galen mentions the treebox, liverwort, or staggerwort, as a medicine for the prevention or cure of hydrophobia. I am aware that Blaine, in his work on *Canine Pathology* (a book which Mr. Wallis has consulted), says:—"The treebox is one of the oldest internal preventives made use of. Mention appears to be made of it in the writings of Hippocrates; Galen and Celsus likewise speak of it." A veil of obscurity, however, hangs over his reason for making this statement, more particularly as he does not give any reference to passages. I consider, at all events, that Mr. Wallis would have exercised a wise discretion, if he himself had duly considered John Hunter's aphorism before framing his remarks upon the supposed antiquity of the known remedial power of the boxtree as a prophylactic to hydrophobia. Twice during the last few months I have examined all the extant works of Hippocrates, Galen, and Celsus, and have utterly failed in discovering Blaine's authority for his assertion. It appears very doubtful indeed whether Hippocrates mentioned the disease at all, as Plutarch assures us (*Symposia*, 5, 9), that hydrophobia and elephantiasis were both first taken notice of in the time of Asclepiades, who lived in the time of Pompey the Great, many years later, therefore, than the time of Hippocrates. With respect to the amount of money which my friend gave for the purchase of the Groombridge recipe, we do not consider that it was at all excessive for the elimination of the secret of this "nostrum", which for so many years has proved successful as a prophylactic; *i.e.*, I never heard of a case in which it had failed. It has been a pleasure to have been enabled to bring it under public notice, while the numerous letters which I have received from members of the profession residing in various parts of England prove that a great interest has been excited as to its future application, free from the stain of prejudice. I feel assured, therefore, that, mainly through the medium of our Journal, the chief object which I had in view has been satisfactorily accomplished. Trousseau has said that, in presence of a malady which constantly terminates in death, the practitioner's manifest duty consists in boldly trying everything. The following aphorism of Boerhaave should not be forgotten either. "Nec desperandum tamen ob exempla jam in aliis venenis constantia, de inveniendo hujus singularis veneni antidoto singulari." I have a valuable edition of the works of Galen, published, in seven volumes of folio, at Venice, in the year 1565. The ixth volume contains his *Liber Secretorum*, and at page 102 appears the following paragraph. "Ad Morsum Canis Rabidi."

"Illud autem, quod sanat a morsu canis rabidi, est id quod dico tibi; et est ex medicinis nobilibus, et secretis magnis; et est medicina, quam faciebat Asinius senex antiquus, qui vituperabat medicinas per eam. Et ipse quidem non vidit aliquem, quem momorderit canis rabiosus, si biberit eam, mori; et si non consequebatur ipsum in principio, quando momorderat eum canis. Dabat ergo in potu ex ipso cochlearia duo, et potabat ipsum ex ea xl. diebus integris; et emplastrum faciebat loco morso, quod dicam post medicinam. Modus Medicinæ Morsus Canis Rabidi. Rec.—Cineris cancrorum partes decem; gentianæ partes septem, thuris partem unam. Dosis ejus est cochlear: unum magnum, et pulverizetur super aquam et bibatur; et non bibat ex eâ minus ʒ iij. Modus Emplastri—Rec.—Aceti vini kist.; opopanacis ℥ij; picis lib. iij: aggregetur illud, et fiat emplastrum ex eo, et emplastretur ex eo locus morsus; est enim mirabile." Dioscorides (*Theriac.*, cap. 2) says that the above is a medicine to be relied upon, given with the powder of gentian-root and frankincense. Is it probable that this animal alkali can have any specific action in neutralising the effect of the animal poison? The Gascoigne powder of the Groombridge recipe contains a large proportion of this alkali. C. L. Prince, M.R.C.S., etc.

CLINICAL MEMORANDA.

INFLUENCE OF VACCINATION ON THE FŒTUS *IN UTERO*.

At the suggestion of one of the Government Inspectors of Vaccination, I venture to report the following case, which I believe to be an unique one, as showing the influence of vaccination on the fœtus *in utero* when the mother has been vaccinated. On Monday, June 3rd, 1872, Mr. A. was taken ill with small-pox. The case was a very severe one. His wife, who had been vaccinated in infancy, was revaccinated on June 6th, she being then eight months pregnant. The resulting pocks were very large and full of lymph. On July 24th, she was delivered of a fine female child. When it was three months old, I vaccinated the infant with fresh carefully taken lymph, but was surprised to see that no effect whatever was produced on the arm. About a month afterwards, I again vaccinated the child, being particularly careful to well rub in the lymph; but the result was again unsatisfactory. I think that the child having been vaccinated twice most carefully, it was more than a mere coincidence that there was no resulting pock on the arm. My explanation is, that the vaccine virus, thoroughly pervading the system of the mother, had directly influenced the child, and made it not susceptible of taking again the virus.

A. S. Underhill, M.B., Great Bridge.

NOTES ON A CASE OF EXOPHTHALMIC GOITRE.

W. M., aged 17, a farm-labourer, on November 21st, 1873, applied to me for treatment, saying that for a week he had been ailing, had been unable to do his work as well as usual, and felt weak and chilly. Scarlatina of a rather fatal type was prevalent in the neighbourhood. He was feverish; his face was swollen on the right side, and also the glands of the neck; he had no rash, and has had none. On the third day, the swelling had subsided, and the fever left him. I ordered a tonic mixture with gentian. On December 1st, he was still weak and listless, sitting over the fire. He had no appetite, no animation, and had lost flesh. He was ordered to take quinine and iron; this he continued until December 19th, when I was sent for to see him. I found him sitting in an arm-chair by the fire, resting both hands on a stick, aged in the face, and just like an old man in all his actions; no appetite, no fever, no pain; pulse weak and quick. He had palpitation on standing or walking. He seemed mentally duller than before; he answered questions slowly, and as if he had no interest in them.

On December 23rd, I found him sitting as if he had not moved since last visit, dull, listless, and weak. The eyes were staring; pulse 110, weak; he had slight dyspnœa. The bowels were open several times a day. I ordered nourishing diet, with wine and ammonio-citrate of iron. On December 27th, Dr. J. D. Adams saw him for me. The eyes were staring, and the eyeballs somewhat prominent. There was slight fulness of the neck. There were no cardiac murmurs. He had slight diarrhœa. Aromatic chalk-powder was prescribed.—December 28th. The diarrhœa had ceased.

On consultation with Dr. Adams, we decided to give tincture of digitalis in five-minim doses every four hours.—December 29th. The case had evidently become very serious. He lay in bed almost on his face, and had great dyspnœa; the face turgid and congested; the neck enlarged and throbbing. The eyes seemed starting from the head, and the lids would not cover them. He had passed his urine and fæces in bed. He did not answer questions. The pulse was quick, full, and labouring. He refused to take the medicine, apparently from inability to swallow. On being turned over on to his back, he struggled again on to his face. The next day, the symptoms continued, and he became comatose. At midday, he died quietly. A *post mortem* examination was objected to by the relations.

W. WYNN WESTCOTT, M.B., Martock.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.
SPINDLE-CELLED SARCOMA OF THE AXILLA.
(Under the care of Mr. SAVORY.)
[From Notes taken by Mr. J. MACREADY.]

EDWARD CAWLEY, aged 30, was admitted to Abernethy Ward on November 11th, with a tumour in the right axilla. He was a sorter at the General Post Office. Nearly five years ago, he first noticed a swelling in the axilla about the size of a walnut. Not till twelve months ago did it give him inconvenience. Pain then began along the outer side of the arm from the shoulder to the elbow. The tumour had been increasing in size from that time. The pain, at first occasional, was now constant. It was no longer felt in the arm, but extended over the extensor surface of the forearm and hand, and the proximal phalanges of the thumb and first two fingers. It was worse at night. As the arm hung by the side, nothing was seen of the swelling. When the arm was raised high, a tumour about the size of an orange lay against its inner side, between the pectoralis major and latissimus dorsi. It was oval in shape, and extended upwards into the axilla, and downwards for two inches beyond the pectoralis major. Over it, the integuments were natural and freely movable. Its borders were well defined. It was smooth and hard. When pressed, he felt pain in the forearm and hand, within the limits mentioned above.

The tumour was freely movable from side to side, less so from above downwards. It could not be moved upwards at all. Its lower end seemed bound to the fascia and deep tissue. On the front surface, the brachial artery could be felt as it lay between the coraco-brachialis and side of the tumour. There was no glandular enlargement. The right arm was much less muscular than the left. He was left-handed.

The patient was a short, dark-complexioned, spare man. His health was good. For a month past, his rest had been broken by the constant pain.

On November 21st, after chloroform had been given, an incision was made over the middle of the tumour from above downwards, about four inches in length, through the skin. The dissection, carried through the subcutaneous tissue and deep fascia, showed the tumour to be enclosed in a thick fibrous capsule, from which it was easily enucleated. Two small vessels at the upper part were ligatured, and the edges of the wound brought together by four silver sutures. A dressing of lint with carbolated oil was used.

On December 5th, the wound was nearly healed. At the lower end, a little pus was found on the dressings daily, but in the greater part of its extent, union took place by first intention. By the eighth day the ligatures had come away, and all the sutures had been removed. The patient's temperature on the evening of November 23rd was 103 degs.; the temperature in the afternoon had fallen to normal on the 28th.

A microscopical examination of the tumour showed it to be a spindle-celled sarcoma.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.
A FOURTH YEAR'S CASES OF LITHOTOMY.
(Under the care of Mr. VINCENT JACKSON and Mr. J. O'B. KOUGH.)

OF the examples of stone in the bladder admitted into the hospital during the year 1873, the following nine cases were successfully operated upon by lithotomy. The operation is performed as follows. Chloroform or ether having been administered, as large a staff as possible, either grooved laterally or upon the convexity, is at once passed into the bladder; no previous injection of it with warm water being employed. The patient is not tied up, but is held in the lithotomy position by a couple of assistants; a third taking charge of the staff. An ordinary scalpel-shaped knife, with a thickish handle, is used for cutting into the bladder, and, as a rule, the calculus is extracted with a scoop and the left forefinger. If possible, no tube is used after the operation. The publication of this series, gives with the reported cases of the three previous years, a total of forty lithotomies, all (excepting one) being successful. The age of the youngest patient operated on was two years, and that of the oldest sixty years.

CASE I. Frederick A., aged 4, was admitted April 28th under Mr. Vincent Jackson. The duration of symptoms was twelve months. He was a healthy boy. On May 1st, lateral lithotomy was performed, the stone being removed with the scoop. It weighed 24 grains, and was composed of uric acid. June 3rd, he was discharged cured.

CASE II. George C., aged 48, was admitted March 25th under Mr. Vincent Jackson. His constitution had much suffered from pain and mental anxiety, and great emaciation existed. The patient for thirty years had been troubled with a severe traumatic urethral stricture. At the time of its occurrence, as an instrument could not be passed into the bladder, the urethra was incised through the perinæum. After this, he remained fairly well for about eight years; but retention of urine suddenly occurring, he was admitted into the Birmingham General Hospital, where the stricture was treated by gradual dilatation; and, after a time, he was dismissed, able to pass a No. 8 gum catheter. For thirteen years he was pretty comfortable, but, again having retention, was admitted into Wolverhampton Hospital, and the stricture was finally split, and upon his discharge, a No. 8 gum catheter was easily passed. Off and on, he had been troubled with retention, but has been enabled to relieve himself by passing a No. 5 silver catheter. He had suffered from aggravated symptoms of vesical calculus and catarrh for several months, and his existence had been miserable and almost unbearable. Soon after admission, under chloroform, an examination was made. Seated five and three-quarter inches from the external meatus urinarius, was a tough gristly stricture, just passable to a No. 4 sound, which, on reaching the bladder, struck a moderate sized stone. On April 17th, under chloroform, the stricture was first split, and, directly afterwards, a staff having been passed into the bladder, lateral lithotomy was performed, the stone being removed with the forceps. The weight was 146 grains; and its composition, uric acid in the centre, with a thick phosphatic coating. On June 10th, he was discharged cured.

CASE III. Thomas H., aged 5, admitted July 28th under Mr. Vincent Jackson. The duration of symptoms was about twelve months. On July 31st, lateral lithotomy was performed, the stone being removed with the scoop. It weighed 76 grains, and consisted of uric acid, with a tuberose exterior. On September 9th, he was discharged cured.

CASE IV. John H., aged 9, was admitted August 1st under Mr. Kough. The duration of symptoms was uncertain. On August 21st, lateral lithotomy was performed, the stone being removed with the scoop. Its weight was 112 grains; and its composition uric acid. On September 23rd, he was discharged cured.

CASE V. William R., aged 3, was admitted July 26th under Mr. Vincent Jackson. The duration of symptoms was uncertain. On August 21st, lateral lithotomy was performed, the stone being removed with the scoop. It weighed 12 grains, and was composed of uric acid. On October 2nd, he was discharged cured.

CASE VI. Joseph N., aged 22, was admitted September 25th under Mr. Vincent Jackson. The duration of the symptoms was eleven years. On September 13th, lateral lithotomy was performed, the stone being removed with the forceps. It weighed 1200 grains, and was composed of oxalate of lime. On October 21st, he was discharged cured.

CASE VII. Robert H., aged 5, was admitted September 18th under Mr. Vincent Jackson. The duration of symptoms was almost from birth. On October 2nd, lateral lithotomy was performed, the stone being removed with the scoop. It weighed 158 grains, and consisted of uric acid. On November 11th, he was discharged cured.

CASE VIII. William J., aged 3, was admitted October 29th, under Mr. Vincent Jackson. The duration of the symptoms was four months. On November 6th, lateral lithotomy was performed, the stone being removed from the bladder in the flow of urine which followed the opening of the urethra. Its weight was 3 grains; and its composition uric acid. On December 30th, he was discharged cured.

CASE IX. Henry F., aged 6½, was admitted November 11th under Mr. Kough. The duration of the symptoms was uncertain. On November 20th, lateral lithotomy was performed, the stone being removed with the forceps. It weighed 81 grains, and was composed of uric acid. On December 30th, he was discharged cured.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 2ND, 1874.

E. J. TILT, M.D., President, in the Chair.

Antique Group representing the Circumstantials of Labour.—Mr. S. H. BIBBY exhibited a cast taken from the original, found at Golgas, in Cyprus, in a temple erected in honour of Baal, the supreme divinity of generative power, and Ashtaroth, that of productive power. The group consists of four figures; the mother reclining on the couch, an attendant at her head, and the nurse sitting at the foot of the couch with the new-born infant in her lap. It was probably made three hundred years before the Christian era.

Old Books.—Dr. TILT exhibited some lent by Mr. Donald Napier; an old Bible, in which the process of confinement was portrayed; "Childbirth, or the Happy Delivery of Women", a translation of Mauriceau's work on the *Diseases of Women with Child*, and *The Expert Midwife.*—Dr. AVELING remarked that the seventeenth century works on midwifery exhibited, were exceedingly interesting but not very rare. He would ask the fellows, and the profession in general, whether anyone was aware of the existence in this country of either of the three following works; 1. The first edition of Rhodius *De Partu Hominis*, published in 1532; 2. The first translation of Rhodius' work into English, by Richard Jonas, published in MS. in 1540; and 3. *Speculum Matricis*, of James Wolveridge, published in 1655.

Portrait of Paul Chamberlen.—Dr. TILT exhibited a plate presented by Dr. Taylor of Birmingham, considered to be a faithful likeness.—Dr. WILTSHIRE stated that the Royal Medical and Chirurgical Society possessed the original set of forceps belonging to Chamberlen, and had kindly lent them for the inspection of the fellows.—Dr. MURRAY suggested that, if the books were not very valuable, the owners would do well to present them to the Society.—Dr. AVELING stated his belief that the portrait was that of Peter Chamberlen, the inventor of the forceps, and not of Paul, who was the second son of Peter.

Case of Hydrocephalus.—Dr. GRIGG exhibited a specimen of a hydrocephalic child. It lived till the fourth day, cried, took nourishment, and moved all its limbs with perfect ease. The tumour formed, as it were, a second head at the upper part of the skull, and consisted of a bag formed of the expanded brain, the membranes, and the scalp.

Pessary.—Dr. GRIGG exhibited a modification of Albert Smith's (of New York) pessary, the shaft being made extremely narrow in order not to dilate the lower half of the vagina, and weaken the main support of the uterus thereby. He (Dr. Grigg) had tried it successfully in cases of retroflexion.

Uterine Dilator.—Dr. GRIGG brought forward a modification of Ellinger's rapid dilator. The blades were made extremely thin so as to act like a wedge; their length was limited to one and three-quarter inches. An index in the handles enabled the operator to know how wide the blades are expanded. He (Dr. Grigg) had employed it in cases of anteflexion with dysmenorrhœa successfully.

Fibroid Uterus—Dr. MURRAY exhibited a specimen showing the three forms of the disease—subperitoneal, interstitial, and submucous. The case was seen too late to allow dilatation, and possibly the removal of the pedunculated intrauterine fibroid body. The practical point which arose was, whether the hæmorrhage would have been less after the growth had been removed, notwithstanding the much enlarged and fibrous state of the whole uterus. Dr. Murray was inclined to believe that little or no good in this case would have resulted from any surgical interference. The condition had existed for at least five or six years.

Membranous Dysmenorrhœa.—Dr. GEORGE HOGGAN read a paper on the nature, cause, and treatment of membranous dysmenorrhœa, illustrated by diagrams and microscopic specimens. The specimen was formed of two different structures, continuous with each other; one from the vagina consisting of the well-known pavement-cells of the part, the other from the uterus, formed of embryonic tissue in its early stage, and identical with the structure of the decidua. This rare specimen explained the diverse views on the subject; one school holding that it was an exfoliation, and the other that it was an exudation; the fact being that different observers had examined different ends, and, therefore, structures, of the same membrane. From the symptoms of the case, the membrane seemed due to inflammation. To the naked eye, and under the microscope, the vaginal portion resembled such products of inflammation as the skin of a blister or the membranous cast of the urethra thrown off in urethritis; the conclusion, therefore, was that the uterine portion, continuous and contemporaneous with it, was also due to inflammation; but, *vice versâ*, the uterine portion, which was identical with the decidua, was probably due to the same cause, *i.e.*, excessive vital stimulation, and the vaginal portion continuous with it likewise. It was, therefore, reasoned that inflammation and excessive vital stimulation were the same thing, the latter expression being now offered as a new and correct definition of inflammation. The rational treatment he had employed with success was to lower generative action by anaphrodisiacs, or the bromide of potassium in large doses prior to the commencement of the period.

Report of Sub-committee on Dr. Meadows's Specimen of Dysmenorrhœal Membrane.—After giving a minute description of the microscopic and naked eye appearance of the specimen, Drs. Aveling and John Williams concluded that it was the superficial layer of the mucous membrane of the upper portion of the uterus; but of the condition, general or local, which led to its detachment as a whole, they were unable to find any anatomical indication.—Dr. JOHN WILLIAMS, in reference to Dr. Hoggan's statements, said he was surprised to find the existence of the mucous membrane of the uterus called in question. The labours of some of the most eminent histologists who had lived during the last fifty years, in connection with this subject, have supplied the evidence referred to. One of the microscopical specimens exhibited by Dr. Hoggan at the last meeting of the Society, was a section of the decidua vera. It had a structure similar to that of the mucous membrane of the uterus shortly before a menstrual period. It was not uncommon to meet with small masses of jelly-like substance in the menstrual fluid, in persons who suffer from dysmenorrhœa. They could be hardened in alcohol, and sections could be made of them, and these sections presented a structure similar to that in the specimen exhibited, viz., some round and fusiform cells scattered here and there irregularly in patches in a transparent substance; occasionally a columnar epithelium cell was met with, but more commonly round and fusiform cells. A similar arrangement was frequently met with in mucus passed from the bladder.

Report on Dr. Carter's Specimen.—By Drs. ROUTH and BRODIE. The weight could not be determined as the lungs had been removed, which also precluded the hydrostatic test. Its length was twelve inches, the left testis was within the abdominal cavity, the right could not be found. The eyelids were adherent, and the membrana pupillaris present. The nails had not reached the extremity of the fingers. The hairs were dark and fully formed. No valvulæ conniventes were found, nor were there any convolutions of the brain. These signs would rather fix the age at about six months. On the other hand, the well-marked fibrous condition of skin, the existence of meconium in the colon in abundance, and the advanced state of ossification of the skeleton, especially in the head, would rather point to a later period of life.

Adjourned Discussion on Dr. Gervis's Paper on Retroversion of the Gravid Uterus.—A short abstract was read, referring to the principal points. As regards the propriety of inducing abortion, he objected to it until all other measures had failed. As to the time for attempting the reposition, he was in favour of resorting to it as soon as the bladder had been emptied; delay endangering various pathological possibilities. As to the best position, he thought the knee-shoulder one possessed no advantages over that on the side; the main point being to press the fundus upwards, and to the side of the sacral promontory. As to the exact manipulation, he preferred fundal pressure alone either *per vaginam* or *per rectum*, a finger being hooked in the os if absolutely necessary. The use of anæsthetics he thought unnecessary as a general rule. As to the cause of death, he thought that the gangrenous condition of the bladder, and its accompanying constitutional distress in most cases, were an adequate explanation. An extract from a letter to Dr. Barnes by Max F. Simon of Lucca, Jamaica, was read, narrating the particulars of a case in which great distension of the perinæum, with extrusion of the posterior vaginal wall and anterior wall of the rectum, was very noticeable.—Dr. BARNES adverted to the importance of collecting into one focus as many cases as possible. The addition of Mr. Max Simon's interesting case would make five cases in one volume of the *Obstetrical Transactions.* Mr. Simon's case illustrated a very important point in diagnosis. The bulging of the perinæum by the uterine mass, increased under bearing down efforts, was characteristic, and did not exist in retro-uterine hæmatocele, the condition which, in Dr. Barnes's experience, had been most frequently mistaken for retroversion of the gravid uterus. This symptom was not formally indicated in books, but he found it was mentioned in the histories of several cases. Under the reflex expulsive efforts set up by the pressure of the uterus low in the pelvis, the retroversion, or rather the overturning of the uterus, was increased. The uterus was now like the fœtal head in labour, its body rolled down in the line of Carus's curve, whilst its neck was more or less fixed at the symphysis pubis. Dr. Barnes then referred to the condition of the bladder. Dribbling, he submitted, was an unnatural state; it indicated retention, and, therefore, should be taken as an imperative indication to pass the catheter, whereas practically it often threw the surgeon off his guard, and led to neglect of this course. It was in the obstruction to the bladder that the chief source of danger to life existed. And here he would ask if Dr. Gervis, or any other Fellow, could point to a single case of rupture of the bladder. This was often assigned as a cause of death, but he doubted if it ever happened. Long before this could take place, death would ensue from damage to the urinary organs, the gangrene of the mucous membrane of the bladder, the retrograde damage to the kidneys, urinæmia, shock, and exhaustion. Three compensating factors were at work to obviate rupture of the bladder; the dribbling or overflow, the stretching of the bladder, and absorption of part of the urine. Peritonitis, also commonly assigned as a consequence of retroversion, was in fact very rare. In four fatal cases at least, which he had investigated, there was no peritonitis. With regard to treatment, he insisted that where there had been considerable bladder-damage, as proved by the mucous, purulent, and sanguineous urine and constitutional disturbance, attempts at reposition should not be persevered in. If the uterus remained locked, exerting undue eccentric pressure upon surrounding organs, it would be better to diminish its bulk, and provoke abortion by puncturing the uterus, and drawing off the liquor amnii by the aspiration-trocar. In a considerable number of cases reposition was easy, and it should be effected; but he had seen death ensue, although reposition had been accomplished without difficulty. The shock and urinæmia had already done their work. He had seen, with Dr. Brunton, a case of retroversion in pelvic gestation at term, similar to the one brought before the Society at one of its earliest meetings. In that case, the os uteri could not be found until the patient was put under chloroform. He had delivered by pulling down the cervix, and, at the same time, pushing up the uterus with its contents from the pelvis. Thus rectified, the child was delivered. There was intense albuminuria, caused, as Dr. Brunton thought, by the pressure upon the pelvic and abdominal vessels. The patient recovered.—Dr. CLEVELAND said the question in his mind was not whether the means employed for the reposition of the uterus were of the most skilful and gentle kind, for on that point he had no doubt, but whether they were used at the proper time. He was at a loss to conceive how a patient, from whose bladder such a large quantity of bloody ammoniacal urine was evacuated, could be in a fit condition, immediately afterwards, for an operation that could not fail to be attended with considerable shock. He believed that in such cases it would be better to direct our remedial measures in the first instance to the bladder, which was the true source of danger, by catheterism, and perhaps suitable injections into its cavity; but, above all, by such constitutional treatment as would enable the patient, by-and-bye, if the uterus did not right itself naturally, to undergo, with a better chance of success, the necessary measures for reduction. He further wished to ask if such extreme cases ought to occur at the present day, and to express a hope that through this discussion attention might be drawn to the risk incurred by neglecting retention of urine in the early months of pregnancy.—Dr. GEORGE ROPER thought the diagnosis of retroversion of the gravid uterus was generally not difficult. Retention of urine was commonly one of its first signs. Stretching of the anterior wall of the vagina, and consequent drawing up of the urethra, and concealment of its orifice high up behind the symphysis pubis, rendering catheterism difficult, were strong indications of its existence. Retention of urine commonly commenced during the third month of pregnancy, because at this period the length of the uterus equalled the antero-posterior diameter of the pelvic cavity. In a certain class of cases retention of urine did not occur at such an early period, viz., when the uterus was turned topsy-turvy. Here the long axis of the uterus corresponded to the axis of the pelvic brim, and the uterus continued to grow in its reversed polar position till a later period of pregnancy. The cervix here pointing upwards grew in an upward direction into the abdominal cavity, without exerting injuriously any longitudinal pressure. A case of this kind, in the sixth month of pregnancy, had been observed, in which the uterus, apparently by its own contraction to expel its contents, underwent self-rectification, casting out the ovum with membranes entire.—Dr. J. BRUNTON said that, as Dr. Barnes thought it of great importance to note every sign and symptom present, he would remind Dr. Barnes that in the case alluded to there was an oblique furrow on the abdominal surface, giving one the impression of the existence of twins. The furrow, no doubt, was caused by the doubling over of the uterus.—Dr. WYNN WILLIAMS drew attention to the liability to a recurrence of retroversion in subsequent pregnancies. In one case, abortion at the third month had taken place on two occasions. The uterus was replaced, and a Hodge's pessary inserted, the patient became pregnant and went her full time; the pessary being left in until she had quickened. Again, she became pregnant, nothing was done, and she aborted. She again became pregnant, and went her full time, the uterus having been replaced and a Hodge's pessary inserted about the third month. In another instance, a patient had been allowed to remain three days without the bladder being relieved. She was between four and five months pregnant; the bladder was enormously distended with urine; two large-sized chamber utensils of urine were drawn off. In a day or two, the whole of the mucous membrane of the bladder was passed in a gangrenous condition, and the patient died of blood-poisoning, not uræmic but septic. Another patient consulted him when seven months pregnant, for the purpose of having premature labour induced, stating that she had on all previous occasions aborted, or had a premature labour. The urine was drawn off for several days, and twenty to thirty drops of liquor ergotæ given thrice daily, in the hope that the contraction of the muscular fibres of the uterus might assist in righting its position. Before the end of the week the uterus acquired its natural position, and the patient went her full time. Whether the administration of the ergot, or the drawing off of the urine, was the cause of replacement, it was not easy to determine.—Dr. AVELING observed that the weight of the gravid uterus was sufficient to render the influence of gravitation worthy of consideration. He would, therefore, take exception to the lateral recumbent position as the best. The knee-elbow position, he believed, would be found in all cases to favour the removal of the fundus uteri from the pelvic into the abdominal cavity.—Dr. GALABIN called attention to a mode of treatment from which he had found benefit in one instance, viz., gradual pressure by an air-ball pessary in the rectum, introduced for a few hours at a time. Previous attempts at reduction, both in the knee-elbow and in the lateral position, had been made under chloroform, and had failed; the use of air-ball pessaries in the vagina had only slightly raised the fundus, and there was reason to believe the uterus fixed by adhesions. Treatment was interrupted before the uterus had been completely restored, but the difficulty of micturition was entirely relieved. His own experience was limited to six cases of complete retroversion of the gravid uterus, all at or about the fourth month of pregnancy. Of these, three were restored at once by the fingers in the rectum, counterpressure being applied not to the os or cervix by the vagina, but by the hand externally above the pubes. In one of them, a previous attempt in the lateral position, under chloroform, had failed, and he was led to believe that the knee-elbow position presented greater advantages. In another case, the uterus was replaced at the end of three days, by the use of an air-ball pessary in the vagina, after an attempt at immediate reduction had failed. In the sixth, complete restoration was procured by means of a copious enema, which had been given as a preliminary to further treatment. In none of the cases did abortion occur.—Dr. BRAXTON HICKS said that, as the time was short, he would give the results of his experience in a very few words. He had never seen any one die from retroversion of the pregnant uterus, excepting one patient, who had advanced as far as seven months and a-half. In this case, there had been old adhesions binding down the uterus, together with chronic and recent peritonitis. There had been no bladder-trouble. Dr. Hicks was present at the delivery of Dr. Oldham's case, which was at full term, and he believed there had been no retention. With regard to the means he had taken to restore the uterus, he had never had any real difficulty, although he knew such cases did sometimes occur. He always had the urine drawn off two or three days, giving opiates to lessen irritability; and then, placing the patient in the knee-and-elbow position, he gently pushed up the fundus. If the opposite pole, being above the brim, did not come down, he pressed it down from the exterior, just above the symphysis pubis. If these measures, carried out gently and slowly, failed, he placed the patient on the side, and introduced an empty air-bag into the vagina, and then inflated it. A T-bandage, with perineal pad, was applied externally to retain it; and generally, about the second, not later than the third day, he had found the uterus restored. He had never found occasion to apply the fingers or bags *per rectum*.—Dr. PALFREY remarked that, on hearing Dr. Gervis's paper, he thought they were three very unfortunate cases. In the London Hospital, he had had several cases, but death was very rare, occurring in two only out of twenty-seven cases. The last case he had seen occurred in Essex; six medical men had attempted to pass a catheter and failed. He had succeeded, with the greatest ease, in passing one with an olive-shaped end (if necessary, a larger sized one could be passed over this) where the finger had failed to detect the urethra, after nearly two hours' trial.—Dr. GODSON called attention to the effect produced upon the kidneys in cases of retroversion of the gravid uterus, an increased secretion occurring for days after the first evacuation of the bladder. This rendered it important that the catheter should be passed very frequently in order to avoid distension of the bladder. In one case, he remembered, 200 ounces were first drawn off, next day 102, the following 104, diminishing to an average of 48 ounces directly the position of the uterus was restored. The exfoliation of the mucous membrane of the bladder did not necessarily cause death. There being a specimen in the museum of St. Bartholomew's Hospital of the whole of the mucous membrane of the bladder, with abundance of muscular fibre at the back, which was passed *per urethram*, by a patient, where the uterus subsequently righted itself, and delivery took place at full term, the patient being still alive, but unable to retain her urine more than a few minutes, a contracted bladder evidently existing. —Dr. EDIS had met with several cases. In one, the patient had been allowed to go nearly three days without any relief to the bladder. The fact of pregnancy had been overlooked. Nearly ten pints of urine were drawn off by the catheter, the patient placed in the knee-and-shoulder position, and the retroverted uterus replaced by pressure through the rectum. In another instance, two miscarriages at about the fourth month had previously taken place, and was only averted a third time by restoring the uterus to its proper position, and inserting a Hodge's pessary, the patient going her full time. He thought the knee-shoulder position by far the best, care being taken to press the fundus to one side, and not against the promontory of the sacrum. He had never had to resort to anæsthesia in these cases. —Dr. JOHN WILLIAMS thought that ergot relieved the retroverted condition, and was of much service in these cases.—Dr. HAYES doubted the occurrence of sudden retroversion of the gravid uterus. The urgent symptoms, retention of urine, great abdominal pain, tenesmus, etc., supervened suddenly, but this was the case almost invariably where no thought of a sudden retroversion was entertained; hence the supposition, now given up by most authorities, that distension was the cause of, and not caused by, the retroversion of the uterus. The distended bladder, however, interfered greatly with, and often quite prevented, the uterus regaining its normal position, which, unless bound down by adhesions, it had always a tendency to do. This was clearly seen to be so by numerous cases where, simply by rest, and the constant evacuation of the bladder, maybe with the aid of an air-pessary in the vagina or rectum, the uterus righted itself. Why not imitate this plan in such urgent cases as some of those recorded by Dr. Gervis and other Fellows, in which grave injury to the bladder or kidneys, or to both, was so evident? Do not proceed, in these cases, to hasty and forced reposition, which has resulted often in fatal shocks; but enjoin rest, keep the bladder empty by the catheter, and give the uterus time to gain its normal position. This would be greatly helped by placing in the rectum, or better, in the vagina, an air-pessary, which would start the upward movement of the uterus.—Dr. GERVIS said he had not observed that bulging of the perinæum by the fundus of the retroverted uterus to which Dr. Barnes referred, at all events, when retroversion occurred in the early months of pregnancy. In none of the three cases narrated had he noticed this appearance. In one, the vulva was œdematous. He was scarcely disposed to think that it occurred with sufficient uniformity to be considered diagnostic. The question of the propriety of restoring the uterus to its proper position when the bladder was seriously implicated, as alluded to by Dr. Cleveland and Dr. Hayes, was of course one of the greatest importance. He could only say that, in the cases narrated, there was no great difficulty in effecting the reposition; and that certain leading principles of treatment being agreed upon, details might be influenced by the circumstances of each case. He still was inclined to think that no great gain, if any, arose from the knee-elbow position. If one pictured to one's self the situation of the retroverted uterus when a woman was in the knee-elbow position, its axis would be still rather upwards and backwards; and it must be the pressure of the fingers, and not gravity, which accomplished its reposition. On the question of the early replacement of the uterus, he still thought that this should be accomplished as soon as its displacement was discovered: it was then comparatively easy; and, even if the bladder could be saved from injury by daily drawing off the urine, there was still the pressure upon the rectum to be considered, and the possibility of the occurrence of peritonitis, as in the case narrated by Dr. Hicks. He thanked the Society for their kind attention to his paper, which was intended more to elicit opinion than to bolster up any particular theory.

On the Indications afforded by the Sphygmograph in the Puerperal State.—Mr. FANCOURT BARNES read a paper on this subject. He pointed out the extreme high tension in primiparæ before labour; its disappearance after delivery; the appearance of a characteristic tracing on the second or third day, with the milk-fever, showing fulness, some dicrotism, an absence of tension, a frequency of about 120 beats per minute, and a well developed percussion stroke. He showed the gradual return of the pulse from this date to its normal state. He considered the high tension in pregnant women due to—(1) hypertrophy of the heart; (2) increased amount of blood; (3) additional strain on the kidneys, caused by the added effete matter thereby to be excreted; (4) the vascular system not having accommodated itself to the added physiological work; (5) functional increase of nerve-force during pregnancy. He said that if the high tension made its reappearance after delivery, it might be looked on as an omen of coming albuminuria, with eclampsia and uræmia. Here he considered the sphygmograph to afford aid in the prophylactic treatment of these diseases.

Dr. Wharton P. Hood and Dr. Hope were nominated auditors.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 11th, 1874.

W. R. E. SMART, M.D., C.B., Inspector-General R.N., President, in the Chair.

THE SECRETARY announced that the report received by the Council of the present state of the Society was favourable. The expenses incurred in printing the last volume of *Transactions* were fully met by the balance brought over from the previous session. All the expenses incidental to carrying on the business of the Society for the current year were already paid. The finances of the Society were thus in a satisfactory state, and the number of its members was increasing. A numerous list of donations was read, including contributions from corresponding members in all parts of the world. Dr. Schlimmel had communicated the important observation of the occurrence of albuminuria during the invasion-stage of cholera. In twenty-three cases, where this was detected before any other signs of illness, all but one had diarrhœa in from four to fourteen hours afterwards; three had severe choleraic symptoms; in fourteen, the diarrhœa was soon relieved; and in all the albumen disappeared in two days.

President's Address.—The PRESIDENT congratulated the Society on the activity of the past session; on the importance of the papers read, and the very complete discussions which followed those of Dr. Murray on Cholera, Dr. Gavin Milroy on Quarantine, and Dr. Corfield on the Germ-Theory of Typhoid or Enteric Fever. He had specially to acknowledge the value of the contributions to the work of the past session by the corresponding members, the personal attendance at the discussions by Dr. Cuningham, and the papers by Dr. Tholozan, and by M. Léon Colin, Professor of Epidemiology and Hygiene at the Val de Grâce. Referring to the course of the greater epidemic diseases through the last year, he said that cholera had disappeared everywhere in Europe except in Munich, where it hybernated with two climaxes in the first week of February and the first week of April, not being finally extinct until the first week of May. In March, 1874, it reappeared in Prussian Silesia, which had become frequently infected by it; this epidemic remaining there up to July, when, it may be hoped, the epidemic of 1865 took its final departure from Europe, completing the third cycle or pandemic of Asiatic cholera in nine years: the first, from 1830 to 1837, having lasted seven; and the second, from 1847 to 1861, fourteen years. The last two cycles were more than doubled in duration by recrudescences that had arisen in Europe itself in districts where it had lingered, reduced to almost sporadic type when extinct elsewhere, to revive with epidemic force and renew its invasive properties. Thus, the primary invasion of 1847 had died out after four years, except in Bohemia, where it made a fresh outburst in 1851; and, spreading thence, it lasted in Europe ten years. So the primary invasion of 1865 had ceased in 1868, except in the province of Kief in South-West Russia, where it produced two local epidemics in villages, together with isolated cases in the western provinces of Russia, with 42 deaths in St. Petersburg, and 14 in Moscow (Pelikan); but in May, 1869, fatal cases began to show themselves in the camp at Kief, and the disease became epidemic in August amongst pilgrims, who lived under sanitary conditions so unfavourable as to be sufficient of themselves to produce sporadic cholera. The epidemic character of the disease was not defined until after it had attacked consecutively several persons who enjoyed the benefit of living in good sanitary conditions (Pelikan). From Russian sources, we learn the extent of these secondary visitations. Dr. Archangelsky states, that the epidemic of 1851 cost at least a million lives, of which 352,000 perished in Russia and Poland alone, with a percentage of 44 to the attacks; and Dr. Pelikan states that that of 1869 was attended with a loss of 370,000 in the countries lying east and south-east of the Elbe, with an equal percentage to the attacks to that of the former. These great facts indicate that the secondary diffusions arising from the almost extinct embers retain the invasive energy, together with the mortality of the primary invasions from Asia. The question is now agitated whether the repetition of these secondary diffusions might not be prevented under fitting sanitary measures directed by a central international congress or board of health assembled on the first warning of a primary invasion from Asia, with plenary power to watch the progress of the disease and give aid wherever it may appear, and to watch over the extinction of its last embers in infected districts. The late congress at Vienna has strongly advocated this reasonable proposal; and England, foremost among nations in efforts to prevent future invasio by her sanitary inquiries and measures of public hygiene in India, while deriving her own infections from the continent of Europe, must rejoice to find her sanitary policy thus widely adopted; and it is to be hoped that this Society will lend its wonted direction to secure the entire fulfilment of its long adopted principles. Through Egypt lies the only sea-route by which the disease can be imported, and she has shown her readiness to comply with the scientific teachings of Europe. Russia commands the land frontiers, across which it must pass. Perhaps the original route by the Volga may have become obsolete; but, as Mr. Radcliffe has pointed out, a fresh danger to Europe has arisen from Persia through the Caucasian provinces of Russia, where that Government has now established a strict observation, with means of quarantine. Such being the existing machinery in action—sanitary measures in India and preventive measures of exclusion on the routes from Asia to Europe—we may feel that more will be done than on any previous occasion to save Europe, and with it America, from any future primary invasion. The countries of Western Europe have cast off the early theories of atmospheric causation, and have carried into practice a firm reliance on the necessity for observation of arrivals from infected localities, together with isolation of introduced first cases and a stricter observance of general hygienic laws. In Central Europe there has of late been substituted for the exploded atmospheric causation another by tellurial influences, known as the "ground-water" theory. Where the last has been entertained, the late epidemic has been as severe as any previous one, while Western Europe has remained comparatively exempt. Those are significant facts, and it is gratifying to notice that the opinions of the late congress have been more in accordance with those of Western Europe; and that recent contributions to epidemiology by Russian authorities—Archangelsky on the Recrudescence of Cholera in Bohemia in 1851, and Pelikan on that in South Western Russia in 1869—together with Schlesinger on the Cholera Epidemics of Denmark, afford strong confirmations of the same opinion, as grounds for further action in controlling these epidemics. The year 1873 was signalised also by a wide display of yellow fever in Eastern South America from Cayenne to Monte Video and in the Southern United States, where it broke out at Shreaveport on the Red River, two hundred and fifty miles inland from New Orleans, extending from thence to the Atlantic Coast and to the shores of the Gulf of Mexico. It presented itself also in Jamaica amidst bad hygienic conditions; and it has prevailed on the Delta of the Niger, menacing the expedition on the Gold Coast, which, however, remained intact through the enforcement of quarantine. It may have been of indigenous growth in Africa, but Sal, one of the Cape Verds, a commercial line between the Brazils and the Niger, was infected at an earlier date. In 1874, this pestilence has appeared again on the Coasts of the Gulf of Mexico and in the Brazils, with a less degree of force, which appears now to have expended itself. The plague, once indigenous to Egypt and the Levant, has disappeared there in the wake of a newly awakened commerce; it is now driven back to remote localities amidst semi-barbarous tribes, subject to the lowest social conditions. In 1874, it has been epidemic amongst the nomads of Kourdistan, the rice-growing tribes of the Dazerah, plains of Lower Mesopotamia, the wandering Affiz Arabs of the Hedjaz, and the people of the upland places of the Cyrenaica, in each case exemplifying its dependence on the worst of general sanitary circumstances and its tendency to recur in the same localities as before. A remarkable feature of the visitations in 1874 was that of its appearances at so many distant points, between which no relation can be imagined; thus affording considerable support to the doctrine of spontaneity of origin. It took two centuries of progressive civilisation after that great disinfecter, the fire of London, to drive the pestilence out of Europe; but modern sanitary science now bids fair to counteract by rapid strides that later Asiatic scourge the cholera. Thus, we see that the year 1874 has been signalised by the coexistence of the three grand pestilences—cholera, yellow fever, and plague. Of the minor epidemic diseases which are still too prevalent among civilised nations, the small-pox has been more extensive in England than in 1873, but more closely limited to the northern and midland counties. Enteric fever has also been unusually frequent where small-pox has been most prevalent, and likewise in the southern counties. Scarlet fever has, however, been the widest epidemic of the year. In London, it commenced in the eastern districts in the spring, and it now also infects the north-eastern and the southern districts. In London, the advantages of the great special hospitals for zymotic diseases has been fully realised this year, affording a metropolitan example to be followed in all other large towns. It rests with us as a nation to show the force of all sanitary measures in the prevention of the ravages of this class of diseases that become epidemic only when the converse conditions are allowed to exist; for, by adhering to this as our mission, we shall convince all other nations of the sure foundations of our principles of action.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 16TH, 1874.

VICTOR DE MÉRIC, F.R.C.S., President, in the Chair.

Hypertrophy of Mucous Membrane of Mouth.—Mr. BRAINE showed (through the kindness of Dr. Waller Lewis) one of the *employés* at the General Post Office, who had a large hypertrophied fold of the mucous membrane on each side of the frænum coming from the upper lip. When the lip was drawn tightly over the teeth, the growth slipped from behind it and entirely covered the upper teeth. The man was about eighteen years of age. He said that the growth commenced about six years ago. There was no family history of any like growth. —Mr. NAPIER had noticed in some cases that, when certain teeth were absent, the edges of the other teeth irritated the soft parts, and a similar growth was the result.—Dr. FAYRER had seen something similar in the scrotum. It had also been described by Dr. Vandyke Carter, and shown to be an affection of the lymphatics.—Mr. SEWILL had seen the affection, generally in scrofulous patients.

Tumour on Abdomen.—Mr. BRAINE exhibited for Dr. CLEVELAND a small tumour of doubtful character removed from a lady, aged 74, who had always enjoyed general good health, and from her earliest recollection had had a small swelling or wart on the skin of the abdomen. About six years ago, this growth bled a little, but did not begin to enlarge until the beginning of the present year, when it grew to the size of a hazel-nut, causing considerable pain and uneasiness. In the course of three or four days, it presented a melanotie appearance; and Sir James Paget believed it to be cancerous. It was removed by the knife, a digging incision being made; and the wound was freely dressed with cold perchloride of iron. The patient had done well.

Use of Nitric Acid to Destroy the Dental Nerves in Operation on the Teeth.—Mr. W. D. NAPIER described a case in which he had, by an original mode of treatment, been able to perfect a new and, as he esteemed it, desirable process of operating on the mouth without causing pain to the patient, who objected to the use of anæsthesia. The teeth in both jaws had been reduced to the condition of sharp jagged spikes, giving great discomfort and irritation. The process of filing necessary to reduce them to the level of the gum was done satisfactorily by the aid of ether locally applied, until the exposure of the nerve, etc., rendered the employment of it nugatory. In place of destroying the nerve, Mr. Napier very cautiously and gently applied to the exposed portion of it in each tooth, successively, a pencil of hickory wood dipped in nitric acid, by which it was rendered insensate, and the operation necessary to enable the mouth to receive artificial substitutes was completed.—Mr. SEWILL asked whether the pulps were exposed when the patient was first seen, and whether they were removed under an anæsthetic. If there were no exposure, Mr. Sewill recommended the use of astringents; and if there were, he much preferred total removal of the pulp to the very painful application of actual cautery.—Dr. CRISP asked whether nitric acid caused pain, and whether there was a history of syphilis.—Dr. R. J. LEE, who had seen the patient, testified to his general improvement in health since his teeth had been set right.

Maternal Impressions.—Dr. R. J. LEE read a paper on this subject, which will be published in the JOURNAL.

MONDAY, NOVEMBER 23RD, 1874.

W. H. BROADBENT, M.D., Vice-President, in the Chair.

Gastric Vertigo.—Dr. THOROWGOOD read a paper on gastric vertigo, and described two cases. The first case was that of a gentleman, aged 45, regular and careful in his habits of life, and by no means addicted to stimulants. He was troubled by frequent attacks of giddiness and vertigo; at times he would fall in a faint, with transient loss of consciousness. Frequent and careful examination failed to detect any organic lesion. The face was pale; the pulse slow and regular. A course of Vichy water disagreed notably in this case; and various tonics such as iron, quinine, etc., failed to exercise any curative action over the syncopal attacks. Wine was recommended at meals; and brandy and water whenever the attack of vertigo threatened. This treatment was regularly carried out, and the patient became decidedly worse. Alcohol was entirely abandoned, and by degrees the attacks of vertigo and syncope ceased. In the second case, a lady, aged 35, had frequent attacks of faintness in the morning on awaking, and at other times. No organic lesion could be discovered. The use of alcohol always gave temporary relief, but by degrees the attacks became so frequent that the patient was alarmed at the constant necessity for the stimulant. Iron, quinine, and a variety of tonics did very little good; but a resolute adherence to claret and water, to the exclusion of other alcohols, as a drink had an obviously beneficial effect. Dr. Thorowgood believed local cerebral anæmia to be the pathological condition in these cases. In certain parts of the brain, the arteries were spasmodically contracted. It might be said that a bloodless brain was commonly assumed as the condition in a person given to fainting, and that the proper treatment was to stimulate the heart and so send more blood to the brain. Against this, it was urged that the practical experience showed that stimulating the heart, which it relieved for a time, tended in the end to perpetuate the original malady. The true pathology might probably be found in the observations of Dr. Fothergill on Cerebral Anæmia, in the *West Riding Asylum Reports*, wherein were given the experiments of Cyon and Aladoff, showing the inhibitory influence of certain nerves over the vessels of the brain in causing their contraction and limited anæmia as a result. These inhibitory nerves had been traced from the liver up the vertebral arteries to the brain. Irritation of the stomach and liver thus propagated to the brain, caused spasmodic contraction of arteries and local cerebral anæmia with all its consequences; alcohol, by tending to irritate the liver, would, therefore, be injurious. The cure of these cases, even when very inveterate, might confidently be looked for in, first of all things, careful regulation of the supply of alcohol, coupled with moderation as to diet, regular exercise, and so forth. As medicine, calumba, with bicarbonate of soda and tincture of ginger, would be found very useful. The soda tended to correct any acridity about the juices of the stomach induced by alcohol taken when the stomach was empty. Such acrid secretion would cause feeling of faintness, and a not unnatural craving for a little brandy. The ginger in a small dose would act as a stimulant, mildly, and relieve the craving for brandy or sherry. Subsequently, the use of iron, in combination with sulphate of magnesia or soda, was to be recommended as a tonic laxative.—Dr. **Fothergill** remarked that a clear connection had been made out between the stomach and the larger nerve-centres through branches of the sympathetic, the occipital lobes being the portions of the brain implicated. Anæmia of the brain was not always accompanied by depression of spirits, and in these cases the state of the vessels of the brain was more probably that of spasm than of anything else. In Dr. Ferrier's experiments on monkeys, irritation of the occipital lobes produced marked symptoms of melancholia.—Dr. **Theodore Williams** had seen many cases similar to those narrated by Dr. Thorowgood; and, while agreeing with his treatment, he could not altogether endorse his pathology. Most of these cases occurred among people with tippling habits, whose practice it was to take stimulants between meals whenever they felt what they call "low". The result was bad in two ways. Firstly, the alcohol introduced into the stomach caused a large secretion of gastric juice, which, having no food to act on, irritated the mucous membrane and gave rise to flatulence, distending the stomach, and thereby disordering the heart's movements; hence palpitation and irregular supply of blood to the brain, with its accompanying symptoms. Secondly, the waste of gastric juice prevented a proper amount from being forthcoming at meals; the food was only partially digested, and escaped assimilation, hence starvation of the blood and consequent anæmic symptoms. The treatment most successful, therefore, in these cases was a careful combination of food with stimulants, and a reduction of the latter as much as possible.—Dr. **Routh** agreed with the author as to the common occurrence of these cases among women, often accompanied by leucorrhœa. Chronic alcoholism he noticed chiefly among matrons, and he treated it by two methods: the hankering after stimulants, he satisfied by a harmless one in the form of assafœtida or valerian, or he gave raw beef juice, prepared by rubbing beef through a sieve, and flavouring it with a little celery. Three claret-glasses a day of this juice were given, and it allayed the desire for spirits.—Dr. **Broadbent** was not sure these cases came under the head of vertigo at all. He noticed vertigo to exist in two opposite states of the vascular system—firstly, with the arteries quite relaxed, the skin moist, and the pulse soft; secondly, with the arteries tight and the pulse strong and firm. He agreed with the author's treatment.—Dr. **Thorowgood**, in reply, said that all his cases were not those of habitual tipplers, and that he had used the term vertigo for want of a better.

Rupture of Muscles and Pulmonary Extravasation.—Dr. **Leonard Sedgwick** read the record of a case of this kind, which we have received for publication in the Journal.

Obscure Case of Blood-Poisoning.—Dr. T. S. **Dowse** brought forward the clinical history and pathological appearances of a case which seemed obscure, both in its etiology and its diagnosis. The patient was thirty-one years old. The special features were allied to cerebro-spinal meningitis, to uræmic poisoning, to typhoid poisoning, or to some other morbific factor. But the signs and symptoms throughout were not absolutely relevant to either of the foregoing conditions. There was more or less somnolence, with twitching of bilateral groups of facial muscles, pseudo-paraplegia of the lower extremities, with cutaneous anæsthesia and muscular hyperæsthesia. There was persistent diarrhœa, with involuntary discharge; no vomiting. The most marked feature was the moist, clean, healthy-looking tongue, which remained so until within a couple of days of death. The ratio of pulse, respiration, and temperature was fully detailed. At the necropsy, there was found diffuse change in the arachnoid over the cerebral hemispheres, with effusion of fluid in the sac. The pia mater was supervascular. These conditions existed also in the membranes of the spinal cord, which seemed softened in the dorso-lumbar region. The lungs were healthy. There was recent adhesion between the layers of the pericardium. Attached to the anterior cusp of the mitral valve was an organised mass of laminated fibrin of the size of a small walnut; the other cusp was quite healthy. The cavities of heart were otherwise free from blood or *ante mortem* polypoid clot. On account of this growth, there could not have been complete closure of the valves, which gave rise during life to a definite diastolic murmur. This, Dr. Dowse thought exceptional and differing altogether from the presystolic grind of a stenosed orifice on the one hand, and the systolic regurgitant *bruit* on the other.—Dr. **Broadbent** thought it was an instance of ulcerative endocarditis. Slight ulceration of a portion of the mitral valve had occurred, in which a clot of blood formed, which was fibrinous; minute portions of this had become detached, and were carried into the capillaries of various organs, causing small embolism. In these cases, the embolisms were very minute, and not visible to the naked eye, but could be detected under the microscope. He remembered a case where large thrombi were found in both radial and femoral arteries. As a rule, cases of capillary embolism were accompanied by minute petechiæ of the skin.—Dr. **Theodore Williams** had some doubt about the blood-poisoning in this case; and, while concurring with Dr. Broadbent that it was a case of ulcerative endocarditis, drew attention to the fact that no embola were found in the liver or lungs.—Dr. **Dowse**, replying, said no embolisms were found in the brain or spinal cord.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 17TH, 1874.

Sir W. **Jenner**, Bart., M.D., F.R.S., in the Chair.

The Reports of the Morbid Growths Committee were first read. The report on Mr. Wrigley's Renal Calculus, which came out through the loin in a man who worked in an arsenic factory, was to this effect. The calculus, which was but small, consisted of concentric layers of uric acid and phosphate of lime. The expectations that there might have been some arsenic in its composition were not confirmed by the analysis.—The report on Dr. Pye-Smith's Caseous Disease of Glands followed. The glands were enlarged, and had undergone caseous degeneration. The caseous metamorphosis was almost complete in some of the glands. The infiltration had itself undergone secondary chronic inflammation, which resulted in disintegration.

Epithelioma of the Œsophagus Ulcerating into the Trachea.—The case, described by Dr. **Whipham**, had presented the ordinary features of such cases, including the rejection of fluids through the nose on attempting to swallow, etc. There was also a spasmodic cough. The patient died of hæmoptysis. At the *post mortem* examination, the body was found to be much emaciated. The growth, which could not be felt in life, did not involve either the common carotid artery or the jugular vein. The source of the hæmorrhage was not discoverable. Several rings of the trachea were eroded. The lungs were emphysematous. Black blood-clots were found in the bronchia, and apoplectic clots were found in the substance of the lungs. The heart was fatty. The kidneys were granular, and contained cysts. The point of interest in the case was the source of the hæmorrhage, which came from a very vascular part, but not from any large vessel. The microscopic characters of the mass were those of epithelioma.—The **President** inquired as to the condition of the air-tubes.—Dr. **Whipham** stated that the larger bronchi were entirely blocked by blood-clots.

Ovarian Cyst, with Muscular Envelope.—Dr. **Graily Hewitt** showed the specimen. The cyst was removed three weeks ago from a young woman, aged 19. It filled the abdomen, and the pedicle was broad and short. It was tied, and then dropped back. The operation proceeded without any difficulty. After the operation, Dr. John Williams called his attention to the cyst, which presented a mammillated appearance. The external coat was found to consist of muscular fibre, which, by its contraction, produced the mammillated appearance. This was a pathological matter of physiological interest. How came the muscular fibre there? Rouget thought the ovum passed along the Fallopian tube by the contraction of muscular fibre forming the broad ligament. The ovum might have sprung from the hilus of the ovary, and carried up with it certain muscular fibres. The external coat was from the muscular coat of the broad ligament; while the internal coat was the cyst proper, which was collapsed and puckered by the contraction of the outer tissue. The microscopic examination corroborated the view of the muscular character of the external layer.—Mr. **John Wood** said that he removed a cyst a fortnight ago, in which the Fallopian tube was enlarged, and was connected with the middle of the cyst. The fibres of the fimbriæ were enlarged and lost over the cyst. The Fallopian tube was eight or nine inches long, and as thick as the little finger.—Dr. **Curnow** asked whether unstriped muscular fibre had been found in the body of the Fallopian tubes.—Dr. **Hewitt** replied that there had been no observations made yet as to that point. Cysts of the broad ligament differed from true ovarian cysts.

Induration of the Sterno-Mastoid Muscle in an Infant.—Dr. **Frederick Taylor** brought forward a case of this affection. The case was one which was not at all rare clinically. The child was brought to the Evelina Hospital in October last; it then being four weeks old. The induration had been noticed when the child was a fortnight old, and had undergone no alteration. There were reddish brown maculæ upon its skin. On the supposition that these were syphilides, some hydrargyrum cum cretâ was given, and iodine was applied locally to the induration. The child died when six weeks old of bronchopneumonia. At the *post mortem* examination, the muscle was found hardened, and its lower half was involved in a nodular mass. In life, this mass was movable, and gave no pain. There was little muscular fibre in the mass. The muscle did not narrow into tendon, but remained thick in fibrous induration. On microscopic examination, the induration was found to consist of white fibrous tissue, which ran up the muscle above the induration. There was no recent cell-growth. No histological examination had hitherto been made of such growths. There were two hypotheses as to the origin of these growths. One view was, that they were syphilitic; the other, that they were due to some violence or rupture at birth. In this case the child was syphilitic, and had further been subjected to some violence in birth, as it was a breech-presentation. A question was, what became of these indurations when they passed away? Did normal muscular fibre take the place of the induration?—Mr. **Arnott** had tried to find some account of the histology of such growths, but hitherto had found nothing. He had only met with one such case where there had been trouble at the delivery. Such growth usually disappeared on rubbing with a little oil. A case of muscular tumour had been shown last session, when, on being cut open, the structure shrank under the touch of the forceps.—Dr. **Graily Hewitt** suggested that the phenomena of caput succedaneum might throw light upon such cases.—The **President** thought that the explanation of such changes not being observed till the child was a fortnight old probably depended on the carelessness of the nurses.

Cystic Cancer of the Kidney.—Mr. **Clement Lucas** exhibited a case which was taken from a child seven years of age. He knew nothing of its past history, except that it had had diarrhœa throughout the last summer. In August last, a tumour was discovered under the liver. On October 18th, there was pain in the head and the power of the left side was impaired. After that, convulsions set in, followed by coma. The abdomen alone was examined. The right kidney was hollowed out by two cysts; the larger was of the size of an orange; the lesser, no bigger than a walnut. The fluid gave a deposit of pus-cells and triple phosphate. On microscopic examination, the growth appeared rather sarcomatous than carcinomatous. The urine had once been examined and no albumen was found.—Dr. **Murchison** asked if the ureters were pervious.—Mr. **Lucas** answered that they were.—The **President** asked if the cysts might not be dilated calyces. The appearances were those of scrofulous kidney.—Dr. **Dickinson** thought the cysts mere dilatations of the pelvis of the kidney. The thickening was secondary to the dilatation.—Dr. **Goodhart** had examined several cases of scrofulous kidney, and found kidney-structure round the cysts. In this case, the kidney-structure was seen through the cyst-walls. He had seen it at an earlier period, and thought it a tumour.—Dr. **Murchison** thought it a case of tubercular pyelitis.—Referred to Committee on Morbid Growths.

Double Arch of Aorta enclosing Trachea and Œsophagus.—Dr. **Curnow** brought forward a case taken from a female, aged 87. The vascular circle was formed in front by a left brachiocephalic trunk, the first part of the left subclavian, and a communicating branch to the posterior aortic arch, joining it at about three inches from its summit; behind by a posterior and larger arch, from which the right carotid and then the right subclavian took origin. The ductus arteriosus joined the right extremity of the communicating vessel, and was impervious. During fœtal life, the blood-current must have passed from the arterial duct through the communicating vessel into the descending aorta, whilst after obliteration of the duct a volume of blood, equal to that which was carried into the distal portion of the left subclavian artery, still passed from the first part of the subclavian through the same communication into the aorta. There was no transposition of the viscera. Dr. Curnow looked on the specimen as exemplifying a persistently pervious condition of both fourth vascular embryonic arches; the right being posterior to the trachea and œsophagus, and forming the main aortic arch; the left being anterior, and forming the left brachiocephalic trunk of the first part of the left subclavian; whilst the left aortic root also persisted as the patent communicating vessel. The analogy of this arrangement to the ordinary reptilian type was pointed out. The practical interest of the specimen was in the absence of any dyspnœa or dysphagia in the case, which went strongly to disprove the possible existence of any difficulty in swallowing being ever due to an abnormal deviation of the larger vessels—the so-called "*dysphagia lusoria*". There was no discussion on this very rare specimen, which is worthy of the attention of those anatomists who are interested in embryonic evolution.

Myoma of the Œsophagus.—Dr. **Hilton Fagge** showed a tumour, two inches long by an inch thick, of ovoid shape, which lay obliquely across the gullet at the point of the bifurcation of the bronchi. There was no dysphagia. Under the microscope, the mass was found to consist of non-striped muscular fibre. Dysphagia was common in narrowing of the œsophagus, as was also dilatation of the gullet above the stricture. In tumours of the œsophagus, there were neither dilatation nor dysphagia.—Dr. **Douglas Powell** remarked that dysphagia was rare in œsophageal tumours; but he had only seen one case of aneurism without dysphagia.

Aneurism of the Aorta Rupturing into the Left Auricle.—Dr. R. **King** brought forward this case. The patient had gone to bed apparently well, but was seized with cough, and died in a quarter of an hour, having become livid, with some foaming at the mouth. The *post mortem* examination was made forty-eight hours after death. The venous system and pulmonic circulation were gorged. The left ventricle was enlarged and hypertrophied. The aorta was atheromatous, especially at its base and in the sinuses. The part nearest the left auricle was most affected; and a hole of the size of a lead-pencil was opened into the left auricle. The rush of blood into the auricle had probably arrested the pulmonary flow into the auricle, and death was due to pulmonary asphyxia.—Dr. **Cayley** thought the man might have died of aortic incompetency.

Inguinal Hernia—Mr. **Gay** exhibited a case of inguinal hernia. It occurred in a young man, who wore no truss. He had lifted a heavy weight, and brought down a large mass. There were intense pain and much tenseness. He had hot-baths, and opium by the mouth, as well as morphia subcutaneously. There was a deep sulcus at the line of stricture. The vomiting ceased, and the patient was very faint. The strictured part was released by operation, but death followed in a few hours. At the *post mortem* examination, a large quantity of blood was found in the peritoneal cavity; blood had been passed by the bowels in life; some blood was also found in the mesentery. The intestines were much discoloured in patches, and the mucous membrane peeled off. He thought the bleeding came from the mesenteric veins. There was no hæmorrhage at the time of the operation.

CLINICAL SOCIETY OF LONDON.

Friday, December 11th, 1874.

Prescott Hewett, F.R.C.S., President, in the Chair.

Case of Rare Skin-Disease.—The living specimen was exhibited by Mr. **Morrant Baker**. The eruption was chiefly in the form of papules and tubercles of various sizes, from a pea to a kidney-bean; but in some parts it appeared, as if by confluence of the papules, in the form of irregular wheals and blotches. The papules were smooth and flattened, scarcely irritable, and not at all tender; of a pale yellowish pink tinge for the most part, but varying from this to a decided pink or dull red. The eruption was most profuse on the back. There was none on the palms or soles, and none at the anus or its immediate neighbourhood. The mucous membrane of the mouth and the tongue was unaffected. The patient was a boy twelve months old, and the eruption had appeared when he was six weeks old. During the last few months, no fresh spots had appeared; and, although none had disappeared, they had grown at no greater rate than the child himself. The patient was, and had been throughout, strong and healthy. There was no history of syphilis. The child had not been vaccinated; and had not suffered from any of the usual infantile diseases. Mr. Morrant Baker said he was in much doubt as to the nature of the disease. On the whole, he was disposed to believe that it should be grouped with the erythemata; as the difficulty in attaching it to this class seemed less than when an attempt was made to place it in any other class of diseases of the skin.—Dr. **Tilbury Fox** brought forward a living specimen with the same disease as that exhibited by Mr. Morrant Baker. He stated that he had met with three instances of the affection during the last two years and a half. The case exhibited presented the following history. The child, E. C., was brought in May 1873, when seven months old, to University College Hospital. The mother stated that the child was born at the full time, and did not evidence any sign of disease till it was six weeks old, when the eruption began. The mother was a healthy-looking woman; had had two children before the one now in question; had never had any miscarriages; and only suffered from bilious attacks. Careful inquiry into her history elicited no evidence whatever of her having been syphilised, or of her being the subject of any syphilitic taint whatever. The eruption in the child made its appearance in the form of two places on the inner side of the left leg just above the knee. The places looked as though the child had been "scorched" or "scalded", and the mother thought she had burnt the child. The next part affected was the neck, and then the body. At present, the whole body was affected—the scalp, soles of the feet, palms of the hands, and the whole of the trunk and limbs. The spots, when first seen by Dr. Tilbury Fox, varied in size from a small split pea to a shilling and more, but the majority were about the size of a good pea, and there were many of the size of an almond. They were at first dullish red (copper-coloured), but became pale after a time, being then of a fawn colour. Some of them were pearly-looking, and some buff-coloured. They were very numerous at the back of the neck, over the sides of the body and the temporal regions. They felt somewhat firm, like a stiff piece of chamois leather. The spots were all elevated above the surface, the larger ones as much almost as a quarter of an inch. On close inspection, they presented in some cases the aspect of an uniform infiltration, but most of them were seen to be made up of a congeries of indistinctly marked smaller projections still, which seem to be seated at the hair-follicles. In the larger swelling, the separateness of the projections seemed lost in the close amalgamation of these individual projections. In fact, in some places, the appearance of the little swellings might be roughly likened to a hypertrophy of the skin, involving specially the follicles of the skin, and of a buff colour. The child presented a curious appearance, and was "as spotted as a leopard"; but, in place of discolorations, there were buff-coloured nodules studding the whole normal skin. In some cases, the nodules had shrivelled more or less, leaving a fawn-coloured, slightly elevated, and flattened nodule. There were nodules on the mucous surface of the mouth and palate. In every other respect, the child appeared to be healthy. It had had no jaundice, nor special liver-complaint, nor had the secretions or excretions been at all disordered. The second case was seen by Dr. Tilbury Fox in consultation with Dr. Gream, and subsequently Dr. Brodie. The third was sent from Yorkshire by Dr. Hebblethwaite. The main features were the same in these two cases as in the above described, only that the places were fewer. In one of the instances, the disease was congenital in part; in the other, it began when the child was at the age of six weeks. Several of the spots looked suspiciously like syphilitic eruptions. Dr. Fox referred at length to the differential diagnosis of the case, and affirmed that it bore the closest resemblance to vitiligoidea or xanthelasma, only that it occurred without liver-disorder of any kind, and in young children, and as an acute general eruption at its outset. There was, beyond the hyperæmia, a distinct deposit of buff-coloured stuff, probably about the sebaceous glands. He proposed to name it tentatively *xanthelasmoidea*.

Mr. HUTCHINSON had never met with this disease in such young subjects. It certainly was not urticaria, which was essentially a hyperæmic condition of skin unattended with the deposition of new material, as in these cases. He was inclined, then, to regard the cases as examples of a very rare and hitherto undescribed form of general xanthelasma, or, if objection be made to the use of that term, he might suggest the somewhat barbarous name "xanthelasmoidea".

A Case of Popliteal Aneurism.—Mr. ROUSE read notes of the case, which had lately been under his care in St. George's Hospital. The patient, a carpenter, aged 42, had noticed two years previously a swelling in the popliteal space, without any pulsation. For six months, this had increaed in size without pain; and then he began to suffer pain of an aching character, and complained of stiffness in the part. Six months ago, the patient noticed that the swelling began to "throb"; and, two months before admission, the leg began to swell. When admitted, the right leg was semiflexed and œdematous. The popliteal space was entirely filled by a large immovable pulsating tumour, with no lateral expansion and slight purring *bruit*, which was not synchronous with the pulse, but considerably behind it in point of time. The skin over the tumour was tense, and the veins throughout the thigh were enlarged. The knee-joint was distended by effusion, and attempts at moving the joint or limb produced excessive pain. The femur seemed free from disease, except in the immediate vicinity of the tumour, where it was apparently thickened. There were enlarged glands in both groins, though more numerous on the affected side; and the patient was emaciated, and stated that he was losing flesh rapidly. There was an hereditary history of cancer, and twenty years previously he had suffered from syphilis. On the day after admission, the *bruit* had entirely disappeared. A week after admission, the *bruit* again returned. The effusion in the knee-joint was much diminished, and the apparent thickening of the femur had disappeared. It was, therefore, decided to ligature the femoral artery; and this was accordingly done on the following day, by means of a silk ligature. The operation was followed by a decrease in the size of the tumour for ten days, followed by an increase; and on the eleventh, by the formation of a slough over the most prominent part of the sac, followed by the discharge of blood-clot, laminated fibrine, and sanious pus. A month after the operation, gangrene appeared in the little toe, and extended up on the dorsum of the foot. The limb was, therefore, amputated on the thirty-second day after the artery had been tied, and the patient made a good recovery. On examination of the limb after removal, the tumour was found to be of the size of the fist, the tissues over which had sloughed and exposed a mass of blood-clot. The outer two-thirds of the clot were laminated; the central part soft and dark. The walls of the cyst enclosing this clot consisted of the inflamed and consolidated tissues of the limb; and the popliteal artery opened into it at its upper and inner part by an aperture just admitting the little finger. The popliteal vein was filled with an adherent coagulum; and so also was its internal branch for three inches of its course. Mr. Rouse remarked, that the chief points of interest in the case were: 1. The difficulty of diagnosis; the unusual character of the *bruit;* the upheaving pulsation of the tumour; the history of cancerous disease in the family; the enlarged glands in the groin; the apparent increase in the size of the femur; and the effusion into the knee-joint, which gave the impression that the case might be one of malignant disease; 2. The formation of a slough in the skin over the sac of the aneurism, of which Mr. Rouse had been only able to find one other recorded case; and 3. The cause of the gangrene, which was due to the obstruction in the venous circulation by pressure of the inflamed and suppurating sac.

Mr. BARWELL mentioned a case of a large popliteal aneurism that had burst and become diffuse, in which amputation was performed under the impression that the tumour was malignant. There was no pulsation in the tumour, which occupied the whole ham overlapping the femur. The superjacent skin was of a blue colour. In this case, it appeared that the man, having rested for a few days after the rupture of the sac, having been enabled to resume his work for three weeks before applying for admission to the hospital, a new sac for the false aneurism being formed for the greatly thickened and condensed tissues. Preparations of this case were preserved in the museums of the Royal College of Surgeons and Charing Cross Hospital. Mr. Barwell inquired whether the gangrene in Mr. Rouse's case did not result from thrombosis of the femoral vein following the ligature of the artery, for he had seen cases where this operation had been followed by thrombosis in the companion vein. He thought this to have been more likely than that the pressure of the sac on the popliteal vein should have given rise to thrombosis in this vessel, for from the free discharge from the sac its pressure would be lessened.—The PRESIDENT, in drawing attention to the absence of pulsation, which occasionally occurred in Mr. Rouse's case, related the particulars of two very interesting cases in which the absence of pulsation nearly led to a very great error. One, a man under the care of Dr. Fuller, was admitted for great and persistent pain in the lumbar region. The abdomen was carefully examined, but without result, and Dr. Fuller at first regarded the case as one of rheumatism of the lumbar muscles. By and bye a swelling appeared in the lower part of the belly on the left side; there was no pulsation, and it was generally agreed that the case was one of psoas abscess. The swelling increased much in size, and extended below Poupart's ligament. Mr. Hewett frequently pointed out the case to his pupils as a typical one of psoas abscess, but which he would let alone, as he was not in the habit of laying open large abscesses. The skin then became red, and the abscess appeared on the point of rupture. Instead, however, of bursting, it forthwith diminished in size, until it could hardly be felt. During the whole time the pain from which the patient was suffering was very intense, and it even became more so as the tumour subsided. The man died suddenly with symptoms of collapse very soon after he had been asking to be injected with morphia in the day as well at night, on account of the increased severity of the pain. Mr. Hewett had previously remarked that it was rare to have such prolonged and persistent pain in the back, save in cases of aneurism or cancer. At the necropsy, there was found a large aneurism of the descending aorta, which had ruptured into the belly. At no time had pulsation existed, and there had been a narrow escape of opening it. The second case was one of femoral aneurism, for which Sir Benjamin Brodie had tied the external iliac; the man left the hospital cured, but returned a few months later with recurrence of pulsation in the tumour; this was arrested by pressure from a leather splint applied over the limb. The tumour, however, again increased, and six months later it had attained the size of a cricket-ball. It was then thought to be malignant, but the patient survived for five years, eventually dying of phthisis, the pulsation having ceased after continuing for eighteen months. The original diagnosis of aneurism was then confirmed, and the case showed that an aneurism might continue to enlarge without pulsation being present. Mr. Hewett also related a case of rapid gangrene of the whole lower limb, which followed upon a gunshot wound in the ham of a boy; amputation at the hip was performed, and it was found that of the two shots that had entered the limb, one was lodged in the popliteal artery, the other in the vein. Here signs of gangrene set in within twenty-four hours of the injury.—Mr. **Morrant Baker** related the particulars of a case in which a large fluctuating, non-pulsating, but very painful tumour had appeared in the gluteal region. The diagnosis was abscess, but only blood flowed on exploratory puncture; still, it was thought possible that a vessel might have been wounded, and Mr. Baker, after consultation with one of his senior colleagues, enlarged the opening, and finally laid the sac freely open. A large blood-cavity between the muscle and bone was thus exposed, blood welling up from the great sciatic notch. The common iliac was tied, the patient surviving two days. At the *post mortem* examination, there was found caries of the sacro-iliac synchondrosis, with ulceration of one of the branches of the gluteal artery.—Dr. **Southey** related a case in which the prominent symptom was extreme pain in the lumbar region, greatly increased by movement. There was more dulness in the left loin than normal; the man was very pallid; heart's impulse forcible, but free from murmur. The dulness in the loin increased, and some fulness appeared, and then a decided tumour, but no pulsation. In a few days, however, a distinct thrill was perceived over the tumour, the pain increased, and œdema of both lower limbs occurred from pressure on the iliac veins. Sudden death took place within ten days, and an aneurism was found springing from the descending aorta close to its bifurcation; it had become diffuse, and extended to Poupart's ligament.—Mr. **Warrington Haward** also related a case of abdominal aneurism, in which pain in the back was positively the only symptom. Mr. Holmes had repeatedly examined the case for aneurism, with negative result. At one time, the patient was thought to be malingering. Death occurred from rupture of the sac.—Mr. **Rouse**, replying to Mr. Barwell, stated that the popliteal vein in his case was entirely occluded by a firm partially decolourised clot, softening in the centre.

Secondary Syphilitic Disease occurring twenty-three years after Primary Infection—Mr. **Venning** read notes of the case. The patient was a trooper in the First Regiment of Life Guards, aged 41, who had contracted syphilis shortly after he joined the regiment twenty-three years ago. For this, he had been admitted into hospital, and treated for six weeks with mercury. He had never since suffered from sore-throat or eruption. He had married, and had had four children; they and his wife were healthy. On September 20th of the present year, the patient was admitted into hospital with two well marked rupial sores on the right leg. There were distinct amygdaloid glands in both groins. The patient was put under a course of iodide of potassium and sarsaparilla, and speedily recovered. The point to which Mr. Venning wished to draw especial attention was the condition of the inguinal glands after so long a period of time after infection, as he believed that in them one had a very sure and certain aid in diagnosis, and one which, if more looked for, would supply the key for the solution of many a difficult problem. Mr. Venning mentioned that he had examined every case of syphilis which had occurred in his regiment since he joined, and in which the patient was still in the service; and had found in every instance but one—forty-seven in number—that there was well marked amygdaloid enlargement of the glands of the groin. All these patients but two had been treated with mercury.

Mr. **Pick** related a case, in which the "amygdaloid" glands in both groins had appeared after enlargement of the cervical glands more than a year ago; the subject of them had recently contracted a soft chancre, but there was no evidence of syphilis, and the glandular enlargement was thought to be strumous. Mr. Pick also referred to his own and others' experience to the effect that, after rowing exercise, the inguinal glands frequently become "amygdaloid", subsiding after the cause was withheld. He had met with a case of syphilis in which there were still traces of eruption, but in which there was no enlargement of the inguinal glands remaining.—Mr. **Morrant Baker** asked for more precise information as to the character of the rupial sores, upon which their syphilitic nature was founded.—Mr. **Brudenell Carter** mentioned a case which bore upon the question recently raised by Mr. Gascoyen, as to the possibility of a father infecting his children but not his wife. A patient had come to him with paralysis of the third nerve. He had contracted syphilis twenty-four years ago. After his marriage, his wife had three or four miscarriages; the fifth child was born alive, but was puny. Dr. Addison recognised the child to be the subject of congenital syphilis, and put both it and the father on antisyphilitic treatment. The subsequent children were all healthy.—Dr. **Whipham** also related a case of congenital syphilis, in which the father alone was the subject of the disease.—Mr. T. **Smith** inquired what was the exact definition of Mr. Henry Lee's "amygdaloid" glands. Was it simply chronic enlargement? If so, there was nothing specific about them at all, for all the glands in the body might be enlarged apart from syphilis, and chronic enlargement of the inguinal glands followed on many non-specific causes—*e.g.*, leucorrhœa. He also thought that it was not very unusual, in the upper classes of society, at any rate, to get secondary symptoms delayed in their appearance. He had met with cases of ulceration of the tongue and of the penis in old subjects which were said to be "cancer", but which were cured by iodide of potassium, and in these cases recent infection was out of the question, although in most there was a history of syphilis contracted in early life. In the present case, however, there was more possibility of an infection subsequent to the time stated.—Mr. **Venning**, in reply, stated that not only was the syphilitic gland characterised by its persistence, but it was peculiar in forming one of a group of "multiple buboes" generally in the course of the vessels. It felt pulpy, and its condition was well expressed by the term "amygdaloid". The rupial sores in his case were marked by characters of psoriasis at their margins, and this, together with their appearance on healing, was, he thought, ample evidence of their syphilitic nature.

REPORTS AND ANALYSES

AND

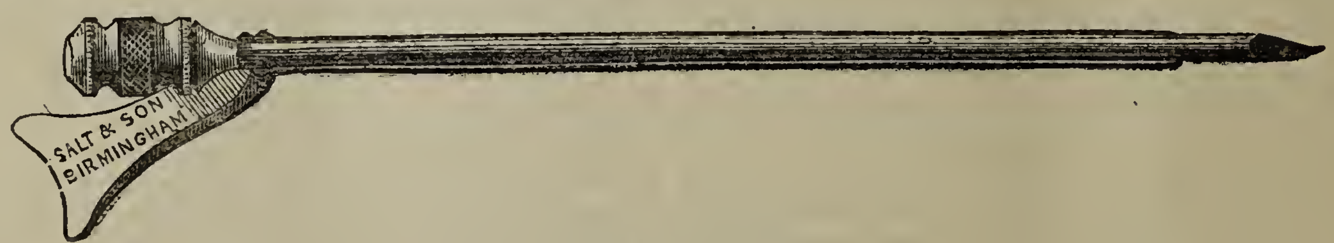
DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE ASPIRATOR-NEEDLE.

By Thomas H. Bartleet, M.B., F.R.C.S.Eng., Surgeon to the General Hospital, Birmingham.

I have occasionally wanted to render permanent the opening made in aspiration, or to pass a drainage-tube into the cavity aspirated; I have therefore devised the director-needle", of which the engraving gives a pretty fair idea. It is simply an ordinary aspirator-needle embraced by a director, which may be left when the needle is withdrawn, or may be withdrawn with it. When left, it allows the passage of a fine pair of forceps for stretching the opening, or of a probe carrying a wire or India-rubber drainage-tube. The director also serves the purpose of a guard to the needle if the latter be partly withdrawn. The needle-director is very carefully made and finished, so as to add as little as possible to the size of the needle. Messrs. Salt and Son of Birmingham are the manufacturers.



The Aspirator-Needle.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1874.

SUBSCRIPTIONS to the Association for 1874 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 26TH, 1874.

MEDICAL TITLES.

THE large number of communications which we have received on the subject of medical titles in general, and on the use of the title Doctor in particular, must be considered representative of the intense interest felt by the profession in the matter; and the same fact may be looked on as a reason for believing that the time for some attempt at a settlement of the controversies revolving round this subject has fully come. No one, indeed, who has any knowledge of the profession, can fail to be struck by the frequency with which questions relating to the title of M.D. recur; neither the smallness of a place nor the narrowness of a circle sufficing to exempt it from some share in this constantly recurring controversy. Among the various views which, with modification more or less serious, are held by our correspondents and the profession on the one hand and by the public on the other, we recognise the following.

First, there are those who think, with ourselves, that those only who possess the degree of M.D. obtained from an University after a fair and testing examination, are entitled to style themselves on their door-plates or on their visiting cards by the title of Doctor. This may fairly be considered the most considerable portion of the profession, both as regards its numbers and the weight of the names which it embraces; nor can we conceal from ourselves that this view seems the only one which is at once logical and consonant with common sense. There is also a large number of honourable and useful members of the profession who believe differently. Many of those medical men, for instance, who hold the license of the Royal College of Physicians of Edinburgh, maintain stoutly their right to style themselves Doctors, and act up to their convictions by engraving the title on their door-plates and printing it on their visiting cards. Then there are gentlemen qualified by the King and Queen's College of Physicians in Ireland, who seem all but unanimous in asserting their claim to use the title of Doctor, though they affect no right to the use of M.D. The opinion of the last mentioned gentlemen is backed by legal decisions, and, so far as it goes, seems to rest on very substantial foundations. And the distinction which they draw between a right to the title of Doctor and that to use M.D. brings us face to face with the practical grievance of another set of gentlemen, representing some of the very best men in the profession, who have an excellent medical qualification, but see their way neither to assume the title of Doctor nor the designation of M.D. These are the Licentiates and Members of the Royal College of Physicians of London; and their position has been well set forth in our correspondence columns. It may be substantially represented as the following. Wishing to have a distinctly medical qualification—one which would indicate more special medical information than what is implied by the possession of the membership of the Royal College of Surgeons, and which now, indeed, being obliged to have such qualification, and at the same time desirous to have one which would be different from, if not superior to, the license of the Apothecaries' Society—these gentlemen have taken the license of the Royal College of Physicians, and yet find it very difficult, if not impossible, to prove to the public that they are in possession of a special medical qualification after all. What are they to do? The College forbids them equally to call themselves Doctors or to assume the degree of M.D.; and yet they are something more than surgeons and mere apothecaries. Besides—and this is a most important point in the difficulty—the public exhibit the most persistent disinclination to go into the merits of the controversy, and continue to call each and every man legally qualified to practise medicine or surgery, one or both, by the general name of Doctor.

The Licentiates of the London College of Physicians further represent, and with large show of reason, that they may be, and in point of fact very generally are, not one whit inferior, either in general culture or in special professional information, to other gentlemen to whom both the titles of M.D. and Doctor are attributed as well by custom as by law. In fact, they say, and say truly, that the mere accident of having studied north or south of the Tweed determines the right to make use of the higher title or the lower, as the case may be. The difference between English and Scotch custom in this important point is, indeed, very great. English Universities, for instance, have all along (with the exception of the London University) refused to give the degree of M.D. to any but their own graduates in Arts; while Scotch Universities grant the degree to those who can pass the medical examinations, and have only of late years laid much stress on the passing of the preliminary examination in Arts. And, even as regards the latter point, it is quite open to question if the literary examination is any more strict or severe at the Scotch Universities—always excepting, of course, the case of those Scotch graduates who hold also a Scotch literary degree —than it is at the London Royal College of Surgeons or the Royal College of Physicians. Then, as regards the London University degree, though this may nominally be attained without residence, it is argued that the conditions for obtaining it, and in particular that condition which insists on a fifth year of study at a recognised medical school, place its acquisition beyond the reach of many whose abilities may be excellent, but whose means are limited. Such, then, are some of the anomalies in medical education, which make it impossible, as things are at present, for men, otherwise competent enough, to obtain the coveted M.D.

But perhaps the hardest case of all is that which is yet to be considered. Many practitioners, and these often representative and able men, find, after they have entered practice, that it would be an advantage to them if they had a legal doctorate in addition to their other medical or surgical qualifications, and are willing to undergo any trouble, and even to incur heavy expense, to remedy an omission that may have been caused by accident in their student-days. Such men find it almost impossible; many, indeed, find insuperable difficulties in doing so. To insist, for instance, on residence at an University before the degree can be obtained, practically excludes them from getting it at all, since to leave a practice, which it has taken many years to build up, for the term of the residence required to obtain the degree, is simply impossible, and would involve the aspirant for the honour in ruin. In this consideration, we may practically exclude the case of a Scotch University which, by a peculiarity of its charter, retains the power to admit annually ten practitioners over forty years of age to the honours of graduation without residence. Both in respect of age and the small number of men who can be so admitted, this power utterly fails to meet the requirements of the case. It may be said, Why not let such men apply to the London University? But the objections to this course are so great as to deprive them of any relief from this quarter also; for first there is the fifth year of study required; and, if it be attempted to get rid of this by claiming admission to examination in terms of the clause which dispenses with the fifth year of study in the case of those who have been five years in practice, there still remains the matriculation examination in general knowledge, and this is sufficient to deter from claiming the honour men whose book-information on general topics has grown rusty during the years they have been engaged in professional work.

These are the main difficulties in the way of those who have not an University degree; and the question comes to be—What remedy can be suggested which shall at once uphold the rights of those who hold the degree, and yet admit to the same honour those men who may prove willing and able to obtain it? If no remedy be suggested, the course adopted and recommended by our correspondent "Cosmopolitan", of going abroad for what he was denied at home, will become more and more common. And surely the slur conveyed by this method of procedure is one under which British Universities ought to be no longer willing to lie. Surely, it must be admitted that the British Universities are not the truly national establishments they say they are, and are not doing efficiently the public work they are maintained to do, so long as this is the case. It is all very well to say, the regulations are so and so, and the regulations do not admit it. The answer to that seems to us quite clearly to be that the regulations *ought* to admit of it, and that, if necessary, some change in the regulations must be made. Now, we have said at the outset, what we most emphatically hold, that there is no logical escape from the difficulty possible without the clear understanding that it is only the possession of the University degree which entitles its possessor to the style or title of Doctor. If this be not clearly kept in view, there is no possibility of deliverance from the hopeless muddle in which the question is at present involved. Even the legal decisions to which the Irish students appeal are insufficient to make us alter our minds on this point, while we have frequently stated our opinion that the Licentiate of the Royal College of Physicians of Edinburgh is not entitled to the style of Doctor which he frequently assumes. If the public choose to style every gentleman legally qualified to practise medicine or surgery by the title of Doctor, that is the public's own affair. Those only who hold the degree of M.D., obtained by examination, and not by purchase, are really entitled to it.

This point being settled, the question remains as to the remedy. We have, of course, no wish to see the standard of examination for the M.D. degree lowered. On the contrary, we desire to see it maintained at the very highest point possible. But, at the same time, we see no reason why Universities should insist on residence, to the exclusion of those gentlemen who have gone through a complete course of professional study elsewhere. By a complete course, we mean a course extending over at least four winter sessions. If it be said that drawing the line here would exclude from admission to the examination for M.D. gentlemen in possession of qualifications which, like the licentiates of the Royal Colleges of Physicians and of Surgeons of Edinburgh, can be obtained after a course of study extending over three winter and two summer sessions, we may regret this, but we do not see our way to alter it. Consideration for a certain class must not lead us to lower the standard for the degree. Of course, if the candidate for the degree examination could show that he had been engaged for at least four winters in professional study at a recognised school, we should not propose to exclude him from the examination because his only qualifications might have been obtained after a course of professional study extending over less than four winters.

The next suggestion which we would make is, that the Universities, which we propose should in future grant their degrees without residence, should also accept the preliminary examination in arts, passed by those qualified men whose course of professional study has extended over four years, as relieving them from any further examination in arts. We see no reason why these suggestions should not be pressed upon all the British Universities. Some of our correspondents have suggested that some one University should be empowered to grant its degree without residence. But, apart from the invidiousness of singling out any one University for this purpose, we fail to see why a suggestion applicable to one University, should not be applicable to all the rest; or at least to all those Universities which, in time past, have been in the habit of granting the degree of M.D. without insisting on the previous possession of a degree in arts.

We think the carrying out of these alterations would provide an effectual remedy for the state of things we have been considering. It seems to us that in this way the rights of the present graduates would be protected, while gentlemen able and willing to pass the examination for M.D. would no longer be arbitrarily excluded from it. So long as care be taken that the standard of the examination for the degree of M.D. be not lowered, no detriment can accrue to any one.

Should the conjoint scheme be at any future time carried out, we should be prepared to consider how it would be affected by these suggestions. At present, we may say we do not think they would be found incompatible with its provisions.

THE REPORT OF THE HOSPITAL SUNDAY FUND.

THE Report of the Hospital Sunday Fund has now been placed before the public, and we are glad to learn that the total amount realised is larger than was at first expected. The sum received from all sources was £29,678 13s. 2d.; and it is satisfactory to observe that collections were made in nearly two hundred more places of worship than last year, and that the total which we have quoted exceeded by more than £2,000 that realised at the previous collection.

With regard to the distribution of this sum, we notice that £25,307 12s. 3d. have been awarded to fifty-four general and special hospitals, and to eight medical institutions; while £3,040 8s. 4d. have been distributed among forty-five dispensaries. This award has not passed unchallenged. The promoters of the Metropolitan Free Hospital have felt themselves aggrieved because they were awarded a comparatively small sum. But upon this point the Report explains that the Committee of Distribution really acted with great leniency; for, as they were charged to exclude any institution wherein the cost of management exceeded a reasonable percentage of the whole current expenditure, and as the cost of management of the Metropolitan Free Hospital was rather more than 34¾ per cent., they would have been perfectly justified in declining to give any subsidy whatever. The Committee were anxious to afford to the managers of this hospital an opportunity of explaining their case; and in their Report "they express their regret that their invitations to the Committee of this hospital to send a deputation to attend a conference at the Mansion House should have been twice declined".

The promoters of special hospitals are also scarcely contented with the principles of distribution. The Report says: "In determining their awards, they have kept ever in view the paramount claims to support which, it appears to them, are possessed by the great general hospitals, which stand open night and day for the free admission of urgent cases of accident and disease of every kind, as compared with the obviously weaker claims of those special institutions, so much less generally useful, which are open only to particular classes of cases, and to which admission is more or less difficult to obtain, and very often delayed." But the managers of special hospitals have hitherto received large contributions in consequence of the sympathy excited in the public towards sufferers from this or that particular malady, and they are not disposed to acquiesce in the view which the Committee of Distribution take of their claims.

Again, the provident dispensaries have been treated in a manner which seems scarcely fair. The rule under which the distributors acted was the following: "That it be an instruction to the Committee of Distribution to place dispensaries on the same footing as hospitals, taking the legitimate expenditure of those institutions, and the ordinary charitable income as the basis of distribution in each case." But the payment of members cannot be regarded as "charitable income". It was, therefore, deducted; and accordingly those provident dispensaries which are in the most satisfactory condition, and which are most nearly self-supporting, received the smallest subsidies; and this notwithstanding the strong terms in which such institutions are recommended by the Report itself, for we are glad to observe that the advocacy of provident dispensaries occupies a considerable space in its pages. Long as we have pleaded their cause, we could scarcely have spoken more decidedly than does the Report in the following paragraph. "Dispensaries, as a rule, provide for the relief of ordinary maladies to which all families and individuals are more or less subject, and against which the working classes should be encouraged to make provision, specially when this may be secured by such a small contribution as sixpence or eightpence per month. There are, no doubt, many persons in the receipt of gratuitous medical assistance who would be willing to pay something for their medicine and attendance, but cannot afford to run up a doctor's bill, and who, although in the first instance reluctant to seek charity, use the hospital or dispensary for each of any system of medical relief within their means. This refined feeling of reluctance should be cultivated rather than restrained; and it can probably only be done by promoting the 'provident' principle in dispensaries, rather than by making them so largely dependent on the direct charity of the public. Dispensaries might be made nearly self-supporting without any detriment to the poorest of the metropolis, for whom the out-patient departments of hospitals would still remain open."

There certainly appears, however, some inconsistency between this language and the discouraging awards which existing provident dispensaries have received. The measure of good which a provident institution is effecting is not to be estimated by its "ordinary charitable income", but rather by the number of its enrolled members; and this ought to be taken into account in weighing its merits.

To meet these various objections, a special committee has been appointed to revise the principles of distribution. It is obvious that institutions which are so diverse in their characters cannot be fairly judged by three general rules; and we shall be glad to learn that some special instructions are framed to meet particular cases.

THE Metropolitan Asylums Board propose to erect a third asylum for adult imbeciles. The Local Government Board, however, before they will grant their consent, require detailed information on the scheme.

THE late Dr. Lankester is succeeded as Health Officer of St. James's, Westminster, by Dr. James Edmunds. The like office in Paddington is about to become vacant, by the resignation of Dr. Hardwicke, now coroner of central Middlesex.

ANOTHER centenarian has turned up in the Forest of Dean. The patriarch, who is described as a free miner, applied at the Crown Office, Coleford, for a gale, whatever that may be, and is said to have been born on October 22nd, 1772.

POOR-LAW OFFICERS' SUPERANNUATION.

A deputation of the Poor-law Officers has waited on the President of the Poor-law Board, with a view of obtaining an improvement in their prospects by a more liberal scale of superannuation allowance, and by the removal of some of the restrictions which now attend the granting of these allowances. In reply to this requisition, Mr. Sclater-Booth promised that the matter should be carefully considered; but he could not hold out the hope that he would bring forward a legislative enactment to satisfy all the suggestions which had been made.

WATER ON BOARD SHIP.

MR. HARRY LEACH, the Medical Officer of the Port of London, having examined the drinking-water of a number of vessels in the port, found that 40 per cent. was in a state unfit for human consumption. The water was in all cases shipped abroad.

DEATH FROM THE ADMINISTRATION OF BICHLORIDE OF METHYLENE.

ANOTHER of these unfortunate cases occurred a short time since at the Royal London Ophthalmic Hospital, during the inhalation of methylene. The patient was suffering from caries of bone near the lacrymal sac. Operation was determined on, and Mr. Buller administered the anæsthetic, bichloride of methylene, by means of a perforated leather inhaler covered with flannel. Three drachms were inhaled, and in two minutes the breathing became stertorous. After the operation, the pulse at the wrist suddenly failed, and then the respiration ceased. All known means for restoring animation were employed, but without avail.

HOSPITAL FOR WOMEN, SOHO SQUARE.

WE notice an announcement declaring a vacancy for a surgeon and an assistant-physician to the above institution. We would like to know whether the *amende honorable* has been made to the late members of the staff, Dr. Alfred Meadows, Mr. John Scott, Mr. Christopher Heath, Dr. Arthur W. Edis, Dr. Charles Squarey, and Mr. Edgelow, who felt themselves compelled to resign their appointments. It will be remembered that the feeling of the profession as to the impropriety of the conduct of the committee in this matter was very strong. These occurrences took place in the beginning of this year. The vacancies are only now declared. Meantime, the committee have virtually admitted the justice of the case of the medical officers, by altering the offensive regulations. But have they offered any reparation to the medical officers? We believe not. Is it not, therefore, counting too much upon the shortness of memory of the profession, to put forth, after this interval, invitations to fill vacancies, for which, at the time they occurred, it was well known that no eligible candidates could be expected to offer themselves. We hope that it will prove that condonation is not so easily procured. We heartily hope that no candidates will come forward; it is hardly consistent with professional self-respect that any man should offer himself for the vacancies now tardily announced.

OVER-DARWEN.

THE epidemic of this town appears to fluctuate very considerably. On several occasions it was announced that the disease had almost disappeared, and as constantly has it suddenly broken out anew. During this week several fresh cases have been reported, one at least of which is of a serious nature.

AGES OF SCIENTIFIC MEN.

JUDGING from the roll of the Royal Society, the pursuit of science does not appear to be detrimental to health. From the death-roll, the total number of deaths, from November 30th, 1873, to November 30th, 1874, was fourteen. Of these, three were under 70 years; five—Sir W. Jardine, Sir J. R. Martin, Professor J. Phillips, Sir F. Smith, and E. H. Stirling—were between 70 and 80; five between 80 and 90 years; and one, Sir G. Rose, 94 years. Looking at the last five, we see that Sir John Rennie died at 81, Professor R. E. Grant at 82, Sir W. Fairbairn at 83, and Dr. Arnott and the Rev. J. W. Bellamy, each at 86. These are remarkable facts, suggestive of matter for consideration. The present number of the society is 525, of whom Sir Edward Sabine is now the father. He was elected a Fellow in 1818, and is the last of the men elected within the second decade of the century. Of Fellows elected within the period 1820-29, there remain eighteen who now take rank as veterans. Among them, we remark the names of Thos. Ball, Dr. Bosworth, Sir John Davis, the Duke of Devonshire, the Earl of Enniskillen, Earl Stanhope, the Dean of Salisbury, Sir J. G. S. Lefevre, Sir C. Lyell, Sir Woodbine Parish, Mr. G. P. Scope, Sir G. Shuckburgh, and Sir R. Vyvyan. In this list of veterans Sir J. Lefevre takes precedence, having been elected in 1820.

WORTHING INFIRMARY.

WE recently (JOURNAL, page 624) referred to the changes in the management of this institution which were contemplated by the Committee. We are glad to be able to state that it has already been decided to admit medical and surgical cases, to increase the amount of subscription for in-patients' tickets, and to reserve four beds for accidents. It is much to be regretted, however, that, owing to the fact of the medical staff being limited to three surgeons at the present time, jealousies have arisen which, if not speedily removed, will, we fear, prevent efficient or harmonious working. It appears that one of the surgeons, Mr. W. J. Harris, at present holds the position of senior surgeon by virtue of the date of his appointment. The admission of medical cases has naturally given rise to some discussion as to the advisability of appointing an honorary physician. At the meeting on Wednesday week, although it had been privately agreed amongst the members of the staff that Dr. Goldsmith should be allowed to retire from all surgical work so far as the in-patients were concerned, and to devote himself exclusively to the treatment of medical cases, on a resolution to this effect being moved by Dr. Goldsmith, Mr. Harris proposed an amendment, which was carried, to the effect that "no change be made in the personal status of the medical staff of this institution". In consequence of this, one of two things must now be done by the Committee of Management: either the seniority of Mr. Harris must be secured by a rule to the effect that the honorary officers shall take precedence according to the *date* of their appointment, and Dr. Goldsmith must be appointed honorary physician, and must not be allowed to practise pharmacy; or a fourth honorary medical officer must be immediately elected. We regret that any difficulty has arisen; but we feel sure the good feeling which always characterises the members of our profession will induce the individual members of the honorary staff of the Worthing Infirmary to unite upon one of the two propositions we have suggested.

THE CAUSATION OF SCARLET FEVER.

DR. J. G. M'KENDRICK of Edinburgh is at present engaged in a research on the causation of scarlet fever, of which there is an epidemic at present in Edinburgh. Microscopic examination with high powers reveals, we understand, the presence in the mucus, from the tonsils and in the skin, of minute bodies similar to those discovered by Klein in typhoid fever, and by Klebs in diphtheria.

THE ONE-BEDROOM SYSTEM.

IN a very able report on the sanitary state of the Atcham rural sanitary district, Mr. F. Drake, the surveyor and inspector, writes:—The moral or social aspects of the rural cottage accommodation unfortunately does not come within the range of the sanitary authority. I am strongly of opinion that the one-bedroom system, which so largely pertains in this district, is, directly or indirectly, one of the great sources of pauperism. It is not at all an uncommon thing to find the father and mother, and two or three grown-up sons and daughters, and two or three younger children, all herding together in one bedroom. One at Bauseley is a sample of many. In a cottage about ten feet square inside, and one bedroom over, reached by a simple ladder through a hole in the floor, the whole of which bedroom is in the roof, and one small window about twelve inches square, fourteen children have been reared. Some had turned out badly; all were, as far as the mother knew, living; but she had not heard of most of them for years, and did not know where they were. In another wretched place, with one bedroom, the mother was dead, and all the children but one were gone, and that one was the mother of four or five illegitimates: two of these were grown up. As far as my inquiries went, the girl's own father was the reputed father of these quasi-grandchildren. These cases, which are but samples of very many, are sufficient to show that the one-bedroom system is a nursery for pauperism and immorality.

COLD AND CLOTHING.

IN a recent letter, Mr. Robert Rawlinson has made some very pregnant suggestions on this subject. First, he lays his finger down distinctly on one of the greatest difficulties in heating and ventilation. The argument that if you heat a room by fires, there are currents induced betwixt the fire and the various crevices by which air enters the room, is unanswerable. If these crevices are all most carefully closed by listing, etc., the air of the room becomes foul, rebreathed, and laden with the products of combustion either of the body or the fire. When rooms are heated by hot air-pipes, etc., the temperature of the room is raised, but the ventilation is more imperfect than that of the most badly ventilated room in which there is an open fire. The difficulty lies in the combining a comfortably warm temperature with efficient ventilation. Mr. Rawlinson proposes that this difficulty shall be met by permitting air to enter a room in sufficient quantity, while the temperature of the room is kept much lower than is the custom, and the requisite body-warmth maintained by the wearing of thicker clothes in the house. There is so much good sense in this suggestion, that it seems strange that it should not only have not been made, but also been followed, long ago; indeed, ever since we became aware of the properties of oxygen. There does not certainly appear to be any absolute necessity for the maintenance of the present custom of wearing extremely light clothes in the house, and then having to add a large amount of clothing whenever it is necessary to go out of doors. The clothes then added are so heavy as to render all exercise a task. If stouter clothes were worn in the house, the additional weight of out-door apparel would not be so great, and a greater sense of fitness for exertion would be experienced when out. Again, too, he alludes to the effect of cold air upon bronchial patients. The argument might be carried much further than he pushes it. It may be stated that a great proportion of the diseases experienced in cold weather are affections of the respiratory organs, and that the sudden changes from heated rooms to the cold external air are the chief causal factors of this state of things. No competent authority would dream of disputing this. A well warmed room may be necessary in an acute bronchial affection, but in more chronic cases a less decided difference of temperature betwixt internal and external air is highly desirable. This can only be attained by diminished heating of our rooms and the adoption of stouter in-door clothing. Where such plan is adopted, there is much less disturbance in the thorax than where the ordinary plan is followed. Personal experience corroborates Mr. Rawlinson here, and those who try the plan will soon learn for themselves the truth of what he says.

HOSPITAL SUNDAY FUND.

THE General Purposes Committee of the Hospital Sunday Fund submitted their report for the year 1874 to a meeting of the Council which was held on Wednesday week. From this report we extract a few paragraphs.

"Sermons have this year been preached and collections made on behalf of the fund at nearly 1,300 places of worship (about 200 more than in 1873), the total receipts being £28,995 12s. 3d. The collections at schools amounted to £77 10s. 7d. Donations from sundry workmen and others brought in £1,434 13s. 10d. The total sum received up to the present time amounts to £29,678 13s. 2d., including £70 16s. 6d. received from cash put out at interest. The amount collected this year is larger than that collected in 1873 by more than £2,000; the result shows a general and decided increase on last year's collections, thereby proving that the movement is not only recognised, but established.

"The expenditure, including all charges incidental to the collection and distribution of the fund, as well as the cost of working the fund, including printing and advertising, amounts to £926 17s. To this must be added some outstanding liabilities, which will make the total expenses this year nearly 3½ per cent. on the sum collected. The Distribution Committee, by their award, have appropriated £28,348 10s. 7d., leaving £537 18s. 2d. to be carried forward to discharge the outstanding liabilities, and to meet the preliminary expenses of the next year's collection.

"In determining their awards to the several hospitals, the committee have been not only guided by the general principles already indicated, but they have also kept ever in view the paramount claims to support which, it appears to them, are possessed by the great general hospitals, which stand open night and day for the free admission of urgent cases of accident and disease of every kind, as compared with the obviously weaker claims of those special institutions which are open only to particular classes of cases, and to which admission is more or less difficult to obtain, and very often delayed.

"The dispensaries, in accordance with the instructions given, have this year received awards calculated on bases corresponding to those on which the awards to the hospitals have been determined. In dealing with the provident dispensaries, they have considered the payments by members as not forming a part of charitable income, and therefore have deducted the amount of the enrolled members' subscriptions from the gross income."

The report was taken as read, and a discussion followed upon the principles of distribution. It was felt by many that these were not sufficiently understood by the public at large, and that some modification of them should be made to meet the claims of special hospitals and provident dispensaries. With this view, the following resolution was passed.

"That a committee should be appointed consisting of the late Distribution Committee, with an equal number of gentlemen representative of various hospitals, to define more accurately the principles upon which grants from the Hospital Sunday Fund should be given or withheld, and to embody these principles in explicit rules, to be made public and to be of such a nature that no difficulty would be likely to arise in their practical application; the report of this committee to be submitted for the approval of the meeting which will be convened for the election of the Council for 1875."

It was afterwards resolved—"That the members of the Committee of Distribution and the following gentlemen be appointed to carry out the resolution:—Mr. J. S. Shaw Stewart, Mr. Joseph Fry, Mr. R. Brudenell Carter, Dr. Ford Anderson, Dr. Glover, Rev. Septimus Hansard, Dr. Steele (Guy's Hospital), Mr. Campbell De Morgan, Dr. Morell Mackenzie."

Sunday, June 13th, 1875, was the day recommended for the next Hospital Sunday collection.

THE VALUE OF LOST LIMBS.

THE Whitechapel Committee of the Charity Organisation Society report the case of a man who, though possessed of only one leg and one arm, had a variety of names, and made up by his wits for the loss of his limbs. Indeed, his infirmities seemed to have served him in good stead, for he gave out at the place where he lodged that he had £400 in the bank, besides other resources. Whatever amount of truth there may have been in this statement, the Committee were credibly informed that he had on one occasion collected £5 from one row of houses alone, and that he had long carried on an extensive and successful system of begging. Should any of the public have their sympathies excited by the very interesting and plausible manner of a man answering to this description, they will do well to refer to the office of the Charity Organisation Society, 194, Commercial Road, before bestowing their charity upon him.

SCOTLAND.

THE Queen has announced through the Home Secretary her sanction that the Infirmary of Stirling shall in future adopt the title of the Royal Stirling Infirmary.

LEAD-POISONING BY ARTIFICIALLY AERATED WATERS.

AT the Glasgow Central Police Court, on December 17th, Andrew Stout, soda-water and lemonade manufacturer, was charged with having sold two bottles of lemonade the contents of which were adulterated. Dr. Tatlock, the city analyst, stated that, on examining the lemonade, he found it contaminated with lead to the extent of one-sixth of a grain per gallon. It was caused through lead having been employed in the construction of the apparatus in which lemonade was manufactured. A much smaller quantity would have been injurious to health. Dr. Russell, medical officer of the city, stated that no person could have drunk the lemonade contaminated with one-sixth of a grain of lead without very serious risk. Porcelain or glass apparatus should be used in the manufacture of lemonade and soda-water. The charge was found proven, and a fine of £5 : 5, with £1 : 8 : 6 of expenses, was imposed.

IRELAND.

A DONATION of £500 was received last week by the governors of the Hospital for Incurables, Dublin, from Pascal Law, Esq.

FROM a return just issued, we find that public analysts have been appointed in twenty-six, out of a total of forty-three, counties, or counties of towns and cities in Ireland, Dr. Charles A. Cameron of Dublin holding almost all those appointments.

REMUNERATION TO SANITARY MEDICAL OFFICERS.

AT a meeting of the Poor-law guardians of the South Dublin Union, held last week, a sealed order was read from the Local Government Board, fixing £25 *per annum* as the salary to be given to each of the sanitary medical officers under the Public Health Act. The guardians, of course, must comply, but by a majority of sixteen (twenty-four voting) have resolved that counsel's opinion should be taken in the matter.

THE DUBLIN MAIN DRAINAGE.

THE result of the deputation to His Grace the Lord Lieutenant has been received with almost universal dissatisfaction. All the Dublin newspapers with the exception of one journal (the property of a Dublin Town Councillor) endorse the statements made by the members of the deputation. We understand that a Bill for the formation of a Dublin Drainage Board, in accordance with the views of the deputation, will be introduced early in the session: the necessary notices have been already published.

CITY OF DUBLIN HOSPITAL.

IT is rumoured that, in consequence of the death of Mr. Hargrave, late consulting surgeon to the hospital, Mr. Tufnell will become consultant, and a vacancy will arise for a surgeon. We believe candidates are already in the field, even before the change has been determined upon. As the City of Dublin Hospital is one of the institutions where the purchase system prevails, the candidates must be limited to those with well filled pockets.

QUARTERLY RETURN OF THE REGISTRAR-GENERAL FOR IRELAND.

THE quarterly return of the Irish Registrar-General for the third quarter of the present year has just been published. The birth-rate was at the annual rate of 25.4 per 1000; the death-rate, 14.8 per 1000 *per annum*. The emigration-returns show that 17,688 persons left the country; so that the estimated population decreased 3556 during the quarter. The Registrar-General says, "in the case of deaths the increase is considerable, and was mainly caused by the prevalence and fatality of those zymotic diseases which, if not altogether preventable, can be very much mitigated in severity by proper sanitary arrangements". As an aggravated example of unsanitary conditions, we may quote from the report of the registrar of the Scrabby district of the Granard Union, who writes of the scarlatina mortality as follows. "I fear the disease was greatly spread by want of proper sanitary arrangements in the district. In some of the houses, I have seen a pig-house built in the corner of the kitchen or principal apartment of the house, and a patient in scarlatina in a bed beside it, a goat tied in another corner, and a cesspool in front of the house; indeed, in a great number of houses in the remote parts of the district, it is a common thing to see the family living in the same house with the cattle." We may remark that it is unnecessary to go so far as to a remote part of the Scrabby district to find human beings herding together with cattle, as this is a common state of things in Dublin, even within a couple of hundred yards of its largest and handsomest square, as we have ourselves witnessed within the past few weeks. Scarlatina is still prevalent, and, although it has abated in some places, still rages with great severity in Belfast, Newry, Dublin, and many smaller places. Measles has also been extremely prevalent and fatal during the quarter. Small-pox caused 128 deaths in the whole of Ireland; of these, 84 were in Ulster, 41 in Connaught, 3 in Munster, while no death from this disease occurred in Leinster. Of the 84 in Ulster, 66 occurred in Belfast, and 7 in Londonderry. Of the 41 in Connaught, no less than 17 arose in the Lumford Union, and is attributed to the practice of inoculation. Of the Registrar's notes, published at the end of the return, there are eighty-five; and in thirty-two of these there are strong complaints of the sanitary conditions of the districts.

BEQUESTS.—Under the will of the late Mr. Alexander Hall Hall of Emsworth, Southampton, the following bequests to medical charities have been made:—To the West Sussex, East Hampshire, and Chichester Infirmary and Dispensary; the Royal Portsmouth, Portsea, and Gosport Hospital; St. Mary's Hospital (Paddington), the Metropolitan Convalescent Institution (Walton-on-Thames), the City of London Hospital for Diseases of the Chest (Victoria Park), £1,000 each, to be paid at the expiration of twenty-four months after his death.

THE HAMPSTEAD HOSPITAL QUESTION.

A MORE imaginary grievance than that which the Hampstead deputation laid before the President of the Local Government Board, on the 10th instant, can hardly, we think, be conceived. The deputation produced an opinion of counsel, showing that the president of the said board had power to remove the grievance; but on the all important question, as to whether or not there was any grievance at all, they produced no skilled opinion whatever. Indeed, it is remarkable that, of the gentlemen who composed the deputation, there was not a single medical man of special experience in this matter. The Medical Officer of Health for the district, Mr. Lord, the very person best qualified to speak on the subject under discussion, was conspicuous by his absence.

With the view of allaying the fears of the inhabitants of Hampstead and the metropolis generally, we have made careful inquiries into the nature and reality of the dangers which are so confidently said to hang over them; and the object of this article will be to show that extensive experience, and a large body of facts, justify us in saying that their fears are groundless, and that they will run no risk whatever from the presence of an infectious and contagious hospital on the site proposed. To enter into a consideration of all that has been said on the subject in question, space would not permit; but, in passing, we cannot help referring to Mr. Sergeant Simon's remarks, as one instance of the many incorrect and misleading statements which have been made on the subject. This gentleman said that the Heath was the resort of the poor, of the working classes, and of the inhabitants of the metropolis generally; and that this could not continue to be if an infectious hospital were put there. The learned gentleman was unaware or had forgotten that the said hospital is not to be placed upon the Heath at all, but upon a site at least one mile south-east of it; that the Hampstead Heath station is situated at a considerable distance to the north of the hospital site; and also that the hospital will not have to be passed by persons going to or coming from the Heath.

Mr. Forsyth's objections are more serious, and, as they form the very pith of the whole question, we propose to consider them at some length. This gentleman, at a meeting held in the Orphan Working School, Haverstock Hill, on the 8th instant, spoke of contagion and infection with as much confidence as if these two subjects had been the study of his life. While at the same time stating that the "laws of infection and contagion were among the most difficult questions of medical science", he, notwithstanding, declared, "that there was no doubt whatever that infection and contagion would radiate from the hospital as a centre, and carry destruction to the neighbourhood". We will test this alarming statement by an appeal to facts, which, we believe, will not only throw considerable doubt on Mr. Forsyth's statements, but go far to establish the very opposite view, to wit, that contagion and infection do not radiate from fever and small-pox hospitals, and that, as a matter of fact, those that exist do not carry destruction to the neighbourhood. In evidence of this, we call attention to the following facts. Bartram Lodge is the house nearest to the present Hampstead Hospital, and is used as an orphanage, under the superintendence of French Catholic sisters. There are usually about fifty or sixty young girls in the orphanage, besides various other persons. The distance of the house itself is a hundred and seven feet from the nearest hospital pavilion; but the garden and girls' playground extend to within thirty-two feet ten inches of the said pavilion. Now, since the present temporary hospital was opened, 7,352 cases of small-pox, and 218 cases of relapsing fever, were treated in the various pavilions; but not a single case of small-pox or of relapsing fever occurred in the orphanage. It may be said fairly, that all the residents were vaccinated, and that in this way their exemption may be explained; but the same cannot be said for the relapsing fever, which is very infectious to persons of both sexes and of all ages.

The London Fever Hospital lies between two main thoroughfares in the densely populated parish of Islington, to wit, Liverpool Road and Upper Street. The grounds upon which it is built may be described as a square, three sides of which are surrounded by houses. On the north side, it is bounded by Theberton Street, which runs east and west parallel with the north wing of the hospital, the upper or western half of which is but 26¾ feet from the houses. The wards are so directly under the eye of the inhabitants of these houses, that the windows of the wards had to be darkened, in order that they might not be annoyed by being compelled to see what went on in the wards. The south wing runs parallel with a line of houses in Barford Street, at the corner of which there is a large well attended church. The distance between this wing of the hospital and the houses is fifty-one feet. The east side of the ground is bounded by houses, which fill up the space between this part of the ground and Upper Street, and, although not so near the actual wards, are very much crowded, and occupied by a dense poor population. Yet fever is not more prevalent in these districts than in other parts of the parish far removed from the vicinity of the hospital; indeed, we happen to know that the houses immediately surrounding the hospital are exceptionally healthy; they are all occupied; no one complains of stenches, fevers, or any other kind of nuisance, excepting the one above mentioned, which was easily removed by darkening the windows. The experience of Lind on this subject is most instructive. A large number of Spanish prisoners were confined in Forton Prison in 1780. Amongst these prisoners, typhus fever appeared with such severity, that, in seventeen weeks, there were 785 cases, of which 156 died. At the same time, 229 Americans were confined in another part of the prison. No intercourse was permitted them with the other prisoners; "but the hospital containing the sick Spaniards ranged along one side of their airing-ground, and had near the ceiling of each ward ventilators opening towards the airing-ground. Not one of the Americans was attacked with fever". (Murchison, *Continued Fevers of Great Britain*, page 86.) On the same subject, Dr. Murchison himself says "there never was an instance of typhus spreading from the London Fever Hospital to neighbouring houses, even when the hospital was one of a row of houses in Gray's Inn Lane; and, when the hospital occupied its second site at King's Cross, on the same plot of ground as the Small-pox Hospital, and within a few yards of it, Dr. Tweedie states that, notwithstanding the certainty with which its own officials contracted typhus, there had been no instance of this fever among the officials of the Small-pox Hospital during eight years" (*ibid.*, page 86).

We commend these observations to the consideration of Mr. Forsyth. We hardly suppose he had them under his eye when he committed himself to the rash statements which we have quoted; and, if he had not, or, in other words, if he had not acquired the most recent and most correct knowledge of the subject upon which he was speaking, and was not guided by the most skilled advice—considering the leading part which he has taken in the present agitation—we take leave to say that, to put it in the mildest terms, Mr. Forsyth is an untrustworthy adviser.

The Homerton Fever Asylum was opened in October 1871, and since then till now 2,400 cases of infectious fever have been treated there, in much closer contiguity to occupied dwellings than can ever be the case at Hampstead. It is situated in a very poor and crowded district, subject to many of the causes which render human beings susceptible to the reception of infection; and yet, notwithstanding that the asylum is closely surrounded on all sides, fever is unknown in the streets and dwellings which form the boundaries of the asylum. On the east side of this asylum, which is bounded by a line of poor dwellings, the distance from these to the wards varies from twelve to twenty feet, and yet fever has not been known to occur in a single instance in any one of these dwellings. But a more striking instance than this is that of the City of London Union. This union, which contains 800 inmates, forms the west boundary of the asylum, and not a single case of fever has appeared in it since the asylum was opened. Moreover, its Sick Infirmary—which contains not only aged and infirm persons, but infants, young children, and puerperal women, of all persons the most liable to one fever, to wit, scarlet fever—is within twenty feet of that pavilion of the Fever Asylum which has been used for scarlatina during the last three years, and not a single case of scarlatina has occurred in the Union Infirmary since the Homerton Asylum was opened.

Dr. C. T. Aveling, who has been medical officer of the union for the last three or four years, vouches for the correctness of these statements; and he further assures us that he knows every inch of ground surrounding the Homerton Asylum; that he has many patients in the said ground; and that he has not known of any case of fever at all in the streets and houses immediately contiguous to the asylum. The house-superintendent of the said asylum, the engineer, the stoker, the gardener, and the store-porter, live in one or other of the streets bounding the hospital, and they assured us on inquiry that they were well acquainted with their neighbours; that they would certainly have heard of cases of fever, if there had been any, and that they never had heard of any. Similar information was given us by a house-proprietor, who also informed us that the alarm which existed when it was proposed to build the Homerton Asylum was fast dying out, and that the rents were rising. All this is corroborated by Dr. Tripe, the medical officer of health for the district. In reply to a question to a member of the Hackney Board of Works, he said that he was not aware of a single proven case in which the disease had been communicated from the hospital, or by the passage of patients thereto.

Now as regards site and isolation from houses and public thoroughfares, the Hampstead Hospital is more favourably situated, in our opinion, than any one of the other three fever hospitals. It is much better concealed from public view; the extent of ground permits of the hospital buildings being farther from dwelling-houses than in the other sites, inasmuch as every dwelling-house may be, at least, seventy feet distant from the part of the hospital nearest it. There are no public buildings containing large numbers of children near it; no infirmaries. On the Haverstock Hill side, no pedestrian need come within many feet of it; and on the Fleet Road side, no one need come within sixty-two feet of it. The population around it is not, and probably never will be, so dense as it will be around the other hospitals, and hence the ventilation will always be good. With advantages of this kind, and with the London Fever Hospital experience, the City of London Union experience, and the Homerton Asylum experience, will anyone be foolish enough to say that pedestrians in the Fleet Road, or in Haverstock Hill, or "little children playing on the heath", will run any risk of contracting fever from the erection of the proposed hospital?

The great alarm which has arisen among the inhabitants of Hampstead arises from a misconception of the way in which infectious diseases spread. It is supposed that they spread to great distances through the air, without any direct communication by means of human intercourse. This, we may safely say, is an error; and we venture further to say that, with rare exceptions, direct communication with the infected person or thing is the condition of any one receiving a contagious or infectious disease. The evidence in favour of the latter statement is of a very striking kind, and might be multiplied considerably if our space permitted. We shall in the present instance confine ourselves to the Homerton Fever Asylum. In that institution, fever has been communicated to nurses and ward servants, *i.e.*, to persons in direct contact with the sick; but housemaids, linen-room women, cooks, and porters, to the number of forty-one in all, although in constant contact with nurses, and frequently in the hospital corridors connecting and leading to the fever-wards, have entirely escaped. About ten persons, such as the baker, the fishmonger, the dustmen, etc., visit the asylum daily for orders. These persons come more or less into contact with persons having duties connected with the infected sick; but in no single instance have they contracted an infectious fever, or carried one home to their families. But the most striking example of the doctrine that infectious diseases are infective only through a limited space, and also that persons may, with safety, be in the immediate neighbourhood of infectious hospitals if they avoid direct contact with the sick, is the following. During the last summer, the managers of the Homerton Fever Asylum determined to paint all the asylum wards, and also to clean various offices attached thereto. For this purpose, about fifty men and boys were employed; these passed days in the corridors and various other parts of the hospital; they came into contact with nurses and with visitors to patients; but they neither took fever themselves, nor did they take fever home to their families, although they were in and about the building for three months, during which time there were from 150 to 200 patients. Finally, the two or three servants of the asylum, unconnected with the immediate care of the sick, and who are on that account permitted to live outside the walls, have not, we are assured, in any instance, either themselves contracted fever, or carried it to their families.

With regard to the cases narrated by Mr. Fripp, in his letter to the *Times* of December the 7th, we find on inquiry that there is evidence to show that the gardener first affected had had *direct* communication with infected people; that the disinfection of his room was not complete; that every precaution had not been taken, and that the history of his symptoms proves that the mortuary had nothing whatever to do with his disease.

One word as to the *Lancet*. It argues that the fact that certain general hospitals treat typhus in the general wards with apparent impunity, and that the riper experience of other general hospitals is entirely opposed to this, warrants the conclusion that, though at the present time there is no evidence of fever hospitals spreading fever to the surrounding neighbourhood, yet there may be reason to form a different conclusion at some future time. We cannot see that, because it is found impossible to treat typhus in the wards of a general hospital without bad results (although the experience of some few hospitals might possibly lead to a different conclusion) it is probable a longer experience might teach us that it is dangerous to place a fever hospital amid other dwellings, inasmuch as the conditions are entirely different. In the general hospitals on the one hand, fever cases and cases of other diseases are in close proximity, while, on the other hand, the patients in the fever hospital and the occupants of the surrounding houses would be separated from each other by a considerable interval of unconfined air. Moreover, the experience of the London Fever Hospital at Liverpool Road, during a quarter of a century, and that of the Asylums Board Hospital at Homerton, during four years, shows that the risk of contracting fever to the occupants of neighbouring houses is absolutely *nil*.

REPORT OF ACCIDENTS CAUSED BY FROST, TREATED AT LONDON HOSPITALS.

St. Bartholomew's Hospital.—Mr. Henry Bott, House-Surgeon to Mr. T. Smith, reports that several accidents of a severe nature caused by the slippery nature of the streets have been admitted during the past few days. A fracture of the humerus, dislocation of the humerus, an intracapsular fracture of neck of femur, compound fracture of femur and fracture of ribs, compound fracture of tibia and fibula, three cases of simple fracture of tibia and fibula, fracture of the anatomical neck of the humerus in a woman, aged 80, who died from collapse a few hours after the accident, three cases of fracture of patella, and fracture of pelvis have been amongst the more severe injuries admitted. Besides these, many cases of contusions, sprains, and cuts about the head, etc., have received attention. Mr. Andrew, House-Physician to Dr. Southey, states that four patients have died from acute pneumonia during the last few days; and that the patients suffering from bronchitis, especially the elderly ones, have had their symptoms greatly aggravated by the frost. This experience we find confirmed at the other hospitals.

Guy's Hospital.—Mr. Chicken, House-Surgeon, and Mr. Herbert Duke, Dresser, state that seven cases of simple fracture of tibia and fibula, one case of fractured patella, and a case of broken ribs, which had been caused by the frost, have been admitted. Many other cases of a minor nature have been treated in the surgery.

University College Hospital.—Several very serious cases have been admitted. A man engaged in throwing the snow off the roof of a house fell through a skylight, and was admitted with fracture of the skull and the scalp extensively lacerated by glass. Two other cases of fracture of the skull have been admitted during the past week, both caused by falls on the back of the head, and both rapidly fatal. In one case, the patient was very drunk at the time of the accident, and the signs of head-injury were completely masked by the alcoholism; but, as there was a history of a heavy fall, the man was at once admitted, and the necropsy soon proved the wisdom of the decision. A man-servant, whilst cleaning the outside of a window, slipped off the sill, fell on his back, and sustained serious injury of the spine. An old man was admitted with a broken thigh, caused by slipping on his own door-step; and another with fracture of the patella. Several cases of Colles's fracture, and numerous sprains of the wrist and ankle, have been treated as out-patients.

Middlesex Hospital.—The casualty-book at this hospital shows that three cases of fracture of the leg, four of the arm, and two of the clavicle, have been received during the last ten days; together with eight sprains of the ankle, five of the wrist, and an unusual number of cuts and contusions caused by falls.

St. Mary's and St. George's Hospitals.—We are informed that no serious accidents, which can be strictly charged to the frost, have been admitted at these institutions. A few cases of Potts's and Colles's fractures, and numerous sprains and bruises, are all that can be reported.

St. Thomas's Hospital.—The house-surgeons' work has not been much above the average; but a broken thigh, two broken legs, and some cases of cerebral concussion, are ascribed to falls on ice.

Westminster Hospital.—Three somewhat severe cases of concussion of the brain, due to falls on the ice in St. James's Park, have been admitted during the last two days; and an unusual number of fractures and sprains of the wrist and ankle is reported from this hospital also.

Charing Cross Hospital.—An unusual accident is reported by Mr. Taylor, the house-surgeon: a simple dislocation of the lower end of the ulna on to the dorsum of the hand. The radius was broken just below the middle. The man was the subject of chronic lead-palsy (drop-wrist). The dislocation was reduced under chloroform.

Royal Free Hospital.—A man aged 28, and a woman aged 63, both of whom fell upon the slippery pavement, have been admitted, each with simple fracture of tibia and fibula.

Great Northern Hospital.—Mr. Irving, house-surgeon, states that one man, who had fallen from a slippery step, and had sustained fracture of the neck of the humerus, has been admitted. Several minor injuries have been attended to.

Humane Society's Receiving-Houses.—The daily journals have contained full accounts of the cases of immersion which have occurred amongst the skaters and sliders upon the ornamental waters of the various parks of the metropolis, and which have been treated in the Humane Society's Receiving-Houses. Only one death from this cause has been hitherto reported—that of a young German in the Serpentine on Monday evening last.

M. MAGNAN'S EXPERIMENTS.

THE following resolution has been passed, and forwarded to us for publication in the JOURNAL, by the Local Executive Committee of the meeting of the British Medical Association in Norwich in August 1874.

"The Local Executive Committee acting for the annual meeting of the British Medical Association at Norwich in August last, maintain that the invitation to M. Magnan was justifiable. They believe that the repetition in England of an experiment calculated to throw light, not only on the effects of a dangerous dietetic agent, but also on the obscure pathology of convulsive nervous diseases, was advisable, remembering that, by similar experiments, assisted by money grants from the Association, an important advance in therapeutical knowledge has been recently established. Whether, however, the Committee acted wisely or not in granting M. Magnan the opportunity he requested, they cannot refrain from expressing their surprise and regret that Sir W. Fergusson, the late President of the Association, and Mr. Tufnell, should have lent the weight of their influence in aiding a criminal prosecution against five gentlemen, who were not only professional brethren, but four of whom were simply acting as secretaries on behalf of the British Medical Association."

Every reasonable being will, we believe, admit that the advisability of performing a physiological experiment involving vivisection must be decided in each case by considering the degree of usefulness which the operation or demonstration possesses.

The essential question, therefore, in respect to the experiments performed by M. Magnan at Norwich, was to know precisely the object of his demonstration, and his reasons for endeavouring to bring his medical brethren in this country to the conclusions at which he has himself arrived in regard to the action of alcohols and the volatile oils combined with them in various spirituous liquors.

Desiring to furnish the materials for a complete appreciation of the facts on the undeniable authority of the author of the experiments, we have requested M. Magnan to state briefly his object in these experiments. He writes as follows:—"The experiments made at Norwich were intended to demonstrate the comparative actions of alcohol and absinthe, which actions differ very much, since alcohol, after a short period of excitement, produces paralysis, relaxation of the whole body, and comatose sleep; whilst absinthe, in small doses, brings on twitchings and vertigo, and in large doses violent epileptic attacks. It is by no means unimportant, from a clinical point of view, to be aware of this fact, as it may afford valuable indications for treatment. I have employed injections into the veins, and not injections into the stomach, in consequence of the more rapid development of accidents by the intravenous method, which facilitates demonstration. Besides, whatever may be the channel by which the poison is introduced, whether digestive tube, cellular tissue, pulmonary mucous membrane, or veins, the symptoms developed always bear the same characteristics. They merely make their appearance more or less quickly. Thanks to physiological experiment, I have been able to clear up the pathogeny of certain symptoms of acute alcoholism, especially of the trembling, which belongs exclusively to alcohol, and the epileptic attacks which generally arise from the use of absinthe, or some poison differing from alcohol. In chronic alcoholism, the convulsive epileptiform and no less epileptic accidents are referable to organic lesions of the brain, which follow the progress of chronic intoxication. These facts are of a very distinct nature from one another: in the one, we have to deal with a poisoning; in the other, with a material lesion, which becomes an integral part of the patient, and may act independently of external causes."

Dr. Magnan has embodied his researches on alcoholism in a work which is now being translated by Dr. Greenfield (St. Thomas's Hospital). Mr. Colam had the peculiar advantage of having the case heard in the absence of the principal party concerned, and before a local bench of magistrates, of whom the chairman announced himself a member of the Prosecuting Association which Mr. Colam represented; and the next senior member declared opinions which disqualified him from hearing the case at all. Mr. Colam had in the outset observed that the case was not brought forward as an attack upon vivisection for the purposes of research, and in suitable cases, but on the experiment, as one of needless cruelty. Sir Samuel Bignold, however, when judgment was given, intimated that, "when he called to mind how eminent medical gentlemen such as the late Dr. Hull condemned vivisection, he hoped, for the credit of the old city, that no such experiments would be repeated".

It is very unfortunate that there was no ground for appeal, and that the ridiculous rider which the magistrates appended by a majority of one, as to the prosecution being justifiable, although it failed, cannot be torn to tatters as it deserves. We do not hesitate to stigmatise the prosecution as a grave misuse of the forms of justice. A more lamentable display of fanatical ignorance on the part of the prosecution and a board of local magistrates has never been witnessed in a court of justice. It must be said, however, that, but for the encouragement afforded by the evidence of Sir William Fergusson and Mr. Tufnell, and the surprising circumstances under which it was given, no such childish persecution could have been attempted, and it must have failed as ignominiously as it deserved.

With this part of the question, however, we desire to deal with reserve. The resolution above cited refers to it, and it has been forwarded to the Committee of Council of the Association, before whom the course pursued by its Vice-President and late President will come for consideration.

We have given above the grounds stated by M. Magnan for his experimental demonstration to the members of the profession at Norwich, of the truths which he believed himself able to demonstrate to them, and as to which he desired their judgment; and we now append, in contrast with it, some of the more striking passages of the evidence of Sir William Fergusson and Mr. Tufnell. Mr. Tufnell said:

"Dr. Magnan is not known to me by reputation. I did not know him at the time. I have heard of him since. I never heard of him but in connection with this subject. I know him as a writer on this subject, but do not know what position he holds with respect to it. I have never seen experiments with alcohol and absinthe. I have never heard of similar experiments in this country."......"Witness knew the effects of absinthe from having partaken of it in the spring of 1854, when with Omar Pasha on the Danube. He was told by the officers who used it that it produced violent drunkenness. He was not aware before he saw the experiment that it would produce epilepsy. This was upon the dog, but he believed the influence upon the individual, whether upon the soldier or civilian, was violent, and not of an epileptic form. I am not aware that, owing to the experiments of Dr. Magnan, cases which had previously been treated as apoplexy, were found to be epilepsy, owing to the use of absinthe. I consider that all experiments on the lower animals are severe that are not necessary. Anæsthesia would not be produced in connection with the experiment, and therefore, to a certain extent, it was severe."

Evidence being read that Sir James Paget had approved the proceedings as important to scientific knowledge, and tending to increase our knowledge of the nature of disease, and the means of relieving suffering, Mr. Tufnell added in reply to questions:

"Sir James Paget is an eminent surgeon; but I say if he went to be instructed by that experiment, he would not be an eminent physiologist. I have not written any works on physiology. Sir James has written several."

Sir William Fergusson said in his evidence:

"As to whether such an experiment would benefit science, Sir William said he was of opinion it would not, as it was not likely that one person would inject absinthe or alcohol into the vein of another. It was his opinion that it would be an act of cruelty to fasten a dog down upon a board, to make an incision, to insert a tube, and to inject absinthe.... I was not present when the experiment was made. I have never seen absinthe or alcohol injected into the veins of an animal. Before this experiment, I did not know that absinthe would produce epilepsy, and I do not know it now. I should not be convinced by such an experiment. An epileptic patient might appear to be in great pain, and might be totally unconscious. I have seen cases of epilepsy brought on by excessive drinking in England and Scotland.......As a surgeon, do you consider yourself competent to give an opinion upon physiology?—I should consider a surgeon the best physiologist."

It was to give such evidence as this that Sir William Fergusson went down to Norwich without giving any notice to any of the officers of the Association, to assist in criminally prosecuting four of his profession, officers of a committee appointed under his own auspices as president. That his brethren at Norwich should feel aggrieved and astonished is certainly not surprising. The quality of mind of gentlemen who can go into court as accusers of their brethren on a matter as to which, according to their own statements, they are profoundly ignorant, is certainly somewhat beyond ordinary appreciation. Still less is it comprehensible how a surgeon who is "the best physiologist" can off-hand and in a court of local justices, condemn as worthless the methods of physiological research which are approved and adopted as essential by every modern professor of physiology of any authority in the world.

THE CHEMISTRY OF THERAPEUTICS.

We announced last week that early in the ensuing year we should commence the publication of a series of Reports on the Chemistry of Therapeutics, by Dr. J. G. McKendrick, F.R.S.E. These articles, which will include a review of the results of modern research in this department of medical science, together with a statement of the author's views, will consist of a series of eight papers, of which the following is the programme.

1. Chemical processes occurring in the living body may be influenced by medicinal substances.

2. Changes in the chemical constitution of medicinal substances produce corresponding changes in physiological effect.

3. The normal physiological action of medicinal substances may be affected by morbid conditions.

4. The general therapeutical properties of—*a*. The compounds of the metals with the non-metals; *b*. The alcohols and ethers, and of their chlorine, sulphur, and metallic derivatives; *c*. The products of oxidation of the alcohols, aldehydes, acetones, acids, etc.; *d*. The amides, natural and artificial bases, and essential oils; *e*. The cyanogen compounds and bases of animal origin.

SPECIAL CORRESPONDENCE.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

Museum of Science and Art.—Death-Rate.—Professor Huxley and the Chair of Natural History.—The Class of Physiology.—Professor Sanders.

The formal inauguration of the recently completed portions of the Museum of Science and Art is, we understand, to take place on the 14th of next month. In connection with this interesting occasion, the Lord-Provost is to give in the museum building a grand *conversazione*, which, from all one hears of the preparations which are being made, is likely to be of a very brilliant character. This second part is a large and important addition to the museum, which is now the most complete institution of the kind in the kingdom after South Kensington. It has been for some time open for public use, but was not until recently quite ready. A third wing, to the west, is shortly to be added; indeed, the money has already been voted for the purpose, when the building will be complete.

The death-rate of the city has gone up rapidly for the past two or three weeks, having risen from 20 per 1,000, when I reported it last, to 29 per 1,000 for the past week. This rise is partly to be attributed to the severe weather we have recently experienced, more particularly the rapid changes from wet to dry and from cold to moderately warm; the thermometer having had a range of 28 degrees within about ten days; but the rising death-rate has also another cause, namely, the presence of a somewhat severe epidemic of scarlet fever. There are a large and increasing number of cases at the Royal Infirmary, and the officer of health has found it necessary to send round a circular to all members of the profession requesting immediate information of any cases which occur, with the object of isolating those in the poorer parts of the town; the medical officer here has the power of removing any case of infectious disease to hospital, should he deem it necessary.

The rumour, which was mentioned in a recent letter in regard to the arrangements for the lectures on Natural History for the ensuing summer, has proved to be correct; and it is now announced that Professor Huxley has been asked, and has been permitted by the Education Committee of the Privy Council to accept the office of lecturer on that subject in the University, in the absence of Professor Wyville Thomson with the *Challenger*. The greatest satisfaction is expressed here with the appointment, and no doubt there will be a very large attendance on the course. A number of boxes have arrived from the *Challenger*, and are under the care of Professor Turner, who has had them all looked to, and taken care that all necessary attention should be bestowed upon the specimens, particularly in the matter of keeping them properly covered with spirit, brine, and so forth. This has been no slight task, as may be readily imagined.

The class of Physiology, under the new Professor, Dr. Rutherford, has begun very satisfactorily. There are nearly 170 students; and, considering the very short time for preparation at the Professor's disposal before the beginning of the session, the working of the class is most satisfactory. Dr. McKendrick is delivering a course on the general principles of physiology to a class of ladies, numbering, we hear, nearly 70; and, judging from the programme, the subject will be most thoroughly discussed, at the same time without entering upon those subjects with which it is impossible to deal in a satisfactory manner before a general female audience.

I am glad to be able to report that the health of Professor Sanders is steadily, if slowly, improving.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

M. Chauffard and the Students of the Faculty of Medicine.—Proposed Reorganisation of the Academy of Medicine.—Dr. Le Fort on Double Tibio-Tarsal Amputation.—Dr. Lelièvre's Substitute for Linseed-meal Poultice.—Clinical Lectures.—M. Béhier on Clinical Observation.—Dr. Sée on Neuroses and Angina Pectoris.

As announced in my last, the School of Medicine was duly reopened on December 1st, and Professor Chauffard was allowed to resume his lectures in peace. As, however, he found he had to lecture to empty benches, he has adopted the policy generally resorted to by the other professors under similar circumstances—that of withdrawing from the scene of disaffection for a time, when what has happened will probably be cast into oblivion. It is to be hoped that at the next meeting, about the same time next year, a perfect reconciliation will have taken place between master and pupils. I have said that the next meeting will only take place about the same time next year, as I understand that Professor Chauffard has obtained six months' leave of absence, which will just take him beyond the present winter session. As you may imagine, comments are not wanting as to the wisdom or otherwise of the policy of Professor Chauffard's determination. It is not a little amusing to read the remarks of the French medical press on the subject, the junior portion crowing victory, while the seniors are content to express their approval of the course taken by the greatly ill-used professor.

M. Chauffard's report on the reorganisation of the Academy of Medicine, also referred to in my last, was very nearly being thrown out, but for a majority of only one vote, which has determined the Assembly to make the report over to a commission, whence it is doubtful whether it will ever again see the light of day.

While Dr. Chauffard's report was being examined by a secret committee, Dr. Léon Le Fort presented to the remaining members a patient, on whom he had performed a double tibio-tarsal amputation. The patient was 23 years of age, and was the subject of caries of the bones situated in the external border of the foot. The os calcis was sawn horizontally through, so that the inferior portion of the bone and skin of the heel might be preserved. The wound healed rapidly, and the patient can now, without any prothetic means or even the aid of a stick, walk several miles. As may be seen, M. Le Fort's procedure is simply a modification of Pirogoff's operation, with this difference—that the Russian surgeon sought to preserve the length of the limb by cutting longitudinally through the os calcis, which he then turned up; but, the weight of the body being thrown on this part, the posterior portion of the heel, which must necessarily be sensitive, walking must be attended with a certain amount of pain and difficulty. This inconvenience is obviated by M. Le Fort's method.

At a recent meeting of the Academy, M. Le Fort read his report on a paper by Dr. Lelièvre on a substitute for the ordinary linseed-meal poultice, which M. Le Fort was charged to investigate. Dr. Lelièvre proposes the "fucus crispus", or Carraghean lichen, as it possesses the following advantages. It may be cut into thin plates of the size required, and, when steeped in hot water, it softens and swells in a few minutes. This new poultice has been tried by MM. Demarquay, Gosselin, and Verneuil in their respective hospitals, and they have pronounced it to be far superior to the linseed poultice; it keeps moist for more than sixteen or eighteen hours; it does not slip; is inodorous; does not readily ferment, nor does it soil the linen or bed of the patient. This new poultice is destined to render great service to the hospitals, ambulances, and particularly on board ship, where it is difficult to keep the linseed in a state of preservation.

The clinical lectures, which, like those of the Faculty, were interrupted by the closing of the School, have been resumed; and I purpose to offer your readers a brief notice of some of them.

M. Béhier, the Senior Professor of Clinical Medicine in Paris, in his opening lecture at the Hôtel Dieu for the session, dwelt upon the necessity of clinical observation, and expressed his regret at seeing the young school more exclusively devoted to physico-chemical researches. These, he said, were very necessary, and indeed indispensable, for the judicious prosecution of medical studies; but the one should not be fostered at the expense of the other; both should go hand in hand, or otherwise the science and art of healing must be reduced to the level of the most abject empiricism. After these preliminary considerations, M. Béhier presented three patients of his ward, all of whom had one symptom in common—jaundice, which, although the same in appearance in all three, was very different in its nature and origin. The first was a case of simple jaundice, the other two were the result respectively of hypertrophy of the liver and spleen.

At the Charité Hospital, Professor Sée entertained his hearers with a few short prefatory remarks on several cases of neuroses in his ward, as he intends lecturing this session on diseases of the cerebro-spinal system. But, before going any further into the subject, he presented some very interesting cases, and made on each of them most instructive observations. Among them were several cases of albuminuria, complicated with divers affections, and a very curious case of hysterical paralysis of a transitory character, and simulating an attack of apoplexy. He then made a few remarks on some asthmatic patients, and intends continuing the subject.

In a subsequent lecture, M. Sée treated of angina pectoris—a disease well known, and, in general, easily recognised by medical men. Symptomatically and nosologically, he stated, the disease was perfectly defined, but its pathology was still involved in obscurity. Various theories have been propounded as to its pathology, which may be summed up as follows:—The theory known as the English theory, which is to the effect that angina pectoris is always the result of a lesion of the heart or large vessels; the old German theory, which attributes it to the gouty diathesis; and the French theory, which consists of a painful neurosis or neuralgia of the cardiac plexus of nerves, which neuralgia is sometimes idiopathic or spontaneous, sometimes symptomatic. M. Sée does not admit the existence of angina pectoris without a lesion, and would, therefore, be more favourably disposed to accept the English theory. The following case, which has presented itself in his ward, would seem to justify his preference for the English theory. A patient was admitted in October last with marked symptoms of anxiety and dyspnœa; the latter did not resemble the dyspnœa of asthma, nor that dependent on disease of the heart; notwithstanding the distressed state of the patient from the dyspnœa, the rhythm of the respiration was regular, without any appreciable disturbance in the act of inspiration or of expiration. The patient complained of the two symptoms characteristic of the disease, which in fact may be considered pathognomonic, particularly the second; viz., pain in the præcordial region and pain in the left shoulder. On auscultation, a *bruit de souffle* was heard at the base of the heart, and also, though slightly, at its apex. The paroxysms occurred at first at lengthened intervals; the intervals became gradually shorter, until at length he had five or six attacks a day, and finally the pain was almost constant. In the intervals of the paroxysms, there was not the slightest dyspnœa. The patient was free from dropsy or any sign of pulmonary congestion. He had nothing in fact that would lead one to suspect disease of the heart. Feeling somewhat relieved by his stay in hospital, he asked permission to leave; but he was not long out when he applied for readmission, and in three days after he was carried off in one of the paroxysms. The following is a summary of what was found at the necropsy.—The heart was dilated and hypertrophied, particularly the left ventricle. The aorta was atheromatous, nearly cartilaginous; the atheroma caused a considerable swelling above the sigmoid valves. In consequence of this swelling, the orifice of the coronoid artery was extremely hard and contracted, it had lost its elasticity, and its calibre was reduced to nearly half its normal size. One of the principal carneæ columnæ of the heart was hard and diminished in thickness, which, with the dilatation of the heart, contributed to produce comparative insufficiency of the mitral orifice. Finally, the coronary artery was contracted throughout its length, and was even completely obliterated at a certain point of its course. This would explain the *bruits de souffle* which were heard during life. It is principally by the existence of this lesion that the mode of death in this case may be explained. The coronary artery not being able to convey a sufficient quantity of blood to the heart, the condition of the latter being in consequence considerably modified, it ceased suddenly to act; hence fatal syncope. The nervous system of the heart was not examined. As it is, the *post mortem* examination, though incomplete, is full of interest, and the case is worthy of more profound study, which M. Sée intends prosecuting with the aid of his able *chef de laboratoire* Dr. Cornil.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

Notice of Meeting.

A meeting of the Committee of Council will be held at the Office of the Association, 36, Great Queen Street, London, on Thursday, the 14th day of January next, at 3 o'clock in the afternoon.

Francis Fowke,
General Secretary.

36, Great Queen Street, London, December 23rd, 1874.

CORRESPONDENCE.

THE PHYSIOLOGY OF SPASM AND PALSY OF THE LARYNX.

Sir,—In your report of the discussion on my paper at the Royal Medical and Chirurgical Society, I am made to say, with reference to Dr. Broadbent's difficulty as to the explanation of bilateral palsy of the larynx, "If the connection between the nuclei can be found, it must be so". What I did say was, that if the nuclei of the spinal accessory and vagi nerves, and their commissural fibres be found to have undergone structural change, the bilateral palsy will be fully explained. It is manifest that irritation of one vagus nerve can cause spasm or palsy of the laryngeal muscles on the opposite side only by an influence transmitted through the nervous centre; and, at the central origin of the nerves concerned, we must look for evidence of structural change when bilateral palsy of the larynx has existed during life.

Allow me to add, that in the abstract of my paper in your last number, p. 790, in the nineteenth line from the top of the second column, the word "*e*fferent" is a misprint for "*a*fferent".

I am, etc.,

Savile Row, December 19th, 1874. George Johnson.

THE CONTAGIOUS DISEASES ACTS.

Sir,—In reference to my letter on the Contagious Diseases Acts in your last number, permit me to state, with a view of preventing future mistakes, that the "mean strength" of the army, as given in the first pages of Dr. Balfour's *Annual Reports*, is always more (some 3000 to 10,000 men) than the "mean strength", as given in the "Abstract" which I used. Dr. Balfour has explained the reason of the difference, which arises from various small bodies of men employed on isolated duties, not making returns or not sending their sick into hospital; and, in addition, regiments serving only a portion of the year in the United Kingdom are excluded from the "Abstract". The point in no way affects my argument; but, as in going over the Reports this difference might be noted, I think it well to mention it. I am, etc.,

Netley, December 19th, 1874. E. A. Parkes, M.D.

Sir,—Your elaborate criticism of my "statement" on the Contagious Diseases Acts demands a careful reply, which the pressure of other engagements has prevented my sending earlier.

There are one or two general observations necessary before replying in detail. The first is one which affects the *bona fides* of the "statement" and my character for honesty of quotation; and the second relates to the evidently official hand which has furnished you, as an advocate of the Acts, with minute information respecting the health of the Army so late as the 21st of last month, whilst the medical profession and the public generally, including myself, have been unable to obtain information of more recent date than 1871, until the publication last month of the Army Health Return for 1872, which was not issued at the time my "statement" was prepared. This information from private sources cannot be verified or compared with responsible official statistics; and it must, therefore, be taken for what it is worth.

First, then, with respect to my quotations, of which you say, "This quotation, like *some others*, is so changed by omission of context, that a different meaning from that of the full text is conveyed"; and you have selected, "for example," one paragraph (105 *a*) about the resort by strangers to protected districts for purposes of safety; and you say that I have omitted the context, "There is some slight evidence", which precedes the further remark in the Royal Commission's Report, "that the protected districts are resorted to by strangers for the purpose of safe indulgence". I acknowledge the omission, and will take care that it is corrected in future copies of the "statement". But, whether the evidence was slight or not, it was undisputed, and was sufficient to induce the Commission to report that there was some slight evidence to the effect mentioned. I challenge your reviewer, without fear, to produce another instance in which the omission of the context affects the sense or value of any of my quotations.

Gonorrhœa.—You say, "On this *slight foundation*, the opponents of the Acts have raised the cry that their position is acknowledged". The following is the foundation for saying so. Dr. Balfour was questioned before the Royal Commission. Quest. 16,269: "Then we may consider, with respect to gonorrhœa, that the machinery thus established is found to be fallacious; that it has not diminished the disease within your cognisance?" Ans.: "Yes." Army Report, 1871, p. 9: "The Act exercises no influence in the reduction of gonorrhœa." Army Report, 1872, p. 12: "The fact remains, that the average ratio for admissions (for gonorrhœa) during the eight years from 1865 to 1872 was higher at the protected than the unprotected stations. It must, therefore, be admitted that, so far as appears from the evidence furnished by the Return, but little influence has as yet been produced on the prevalence of gonorrhœa." The above are not a "slight foundation"; and they might easily be multiplied from the Army and Navy Reports; and, as a practical commentary upon them, gonorrhœa has *doubled* in the *Home* and *Mediterranean* Stations in the Navy since the Acts came into operation.

Syphilis: Primary Sores.—Your critic objects, that I have not proved that venereal sores, as well as "venereal diseases of all kinds", were declining during the rapid fall shown in the diagram previous to 1864. It is difficult to do this, as the requisite data are not given in the Army Reports; primary, secondary, gonorrhœa, and stricture, etc., being all classed together as "enthetic diseases" up to 1868. But the following table, collected from the Army Reports from 1861 to 1866, gives an approximate answer. "The *syphilitic group* includes primary and secondary and bubo. The *gonorrhœal group* includes gonorrhœa, swelled testicle, and stricture." (Army Report, 1861, p. 11.)

	Syphilitic Group. Ratio per 1000.	Gonorrhœal Group. Ratio per 1000.
1861	209.8	144
1862	183	147
1863	181	Not given.
1864	168.5	122
1865	Not given	Not given.
1866	139.6	118.9

From this table, it appears that the syphilitic group fell steadily and continuously throughout the whole army by one-third during the six years preceding the operation of the Acts, whilst the gonorrhœal group only fell one-sixth in the same period; and, as the proportion of secondary syphilis and bubo to primary sores does not vary much from year to year, it is a reasonable conclusion that primary sores fell in the same proportion as the syphilitic group generally—viz., one-third of their original amount—previously to the operation of the Act. Now, on taking the six years from 1867 to 1872, that have elapsed since the Act was in force, the reduction of primary sores in Devonport, Plymouth, and Aldershot is less than one-fourth; and in Chatham and Sheerness and Woolwich, it is less than one-third; though in Portsmouth it has fallen more than half. Now, as all these are protected stations, it is difficult to see how these rates of fall compare so favourably with the previous fall of one-third throughout the entire unprotected army, as to show that the Act has produced a beneficial result as a sanitary measure.

The opponents of the Acts deny that the continued abatement in disease, which is not disputed, is due to the Acts; and your critic has not ventured to answer the paragraph in the Report of the Royal Commission, Sec. 37: "There is no distinct evidence that any diminution of disease amongst the men of the Army and Navy is attributable to a diminution of disease contingent upon the system of periodical examinations amongst the women with whom they consort." And the Report continues (Sec. 66): "We recommend that the periodical examinations of the public women be discontinued." Yet these periodical examinations are the very essence of the Act of 1866, which was merely extended in its application in 1869. Your critic has not replied to the fact that *venereal sores have doubled* in the Mediterranean Navy Station since the Act of 1866.

Fallacy in comparing a large garrison town like Plymouth with a small one like Warley. Your criticism on this head relates to Paragraph 61 and part of Paragraph 59 in my "statement"; and you have exposed a fallacy which I will take care shall be corrected in future issues. But your critic has shown how easy it is to fall into this fallacy; for he himself has devoted nearly a quarter of a column to comparing London, the huge sink of all that is vile as well as the abode of what is most noble and exalted, with a small place like Windsor, in order to show the beneficial influence of the Acts by contrasting the amount of disease in the one place, which is unprotected, with that in the other, which is protected. As soon as leisure renders it possible, I will act upon your suggestion, and take out the rate of fall in venereal sores in each one of the twenty-eight stations which have now become such an important battle-field; and will send you the results, whether they are favourable or not to my view, for truth in this matter is much more important than party victory. The paragraph criticised is, however, not essential to the argument that the Acts have failed to lessen disease, the substantive proofs of which remain unaffected whether the paragraph be omitted or retained.

In order to show the difference between a protected and an unprotected town, you have laid great stress upon the unofficially guaranteed experiences of a single regiment (the 9th Lancers) for a period of four years; one of which, however, must be left out of consideration, as the regiment was continually moving about. Now the necessity, in a discussion of this kind, for some means of verifying or comparing figures is strikingly shown in your own numbers for October 31st and November 7th last; for, in the first, at page 572, Mr. Myers stated the number of cases of syphilis contracted in Windsor by his battalion to be only three (a very small number); but, in your next number, you had to publish an erratum, at page 605, saying that the figures were a mistake, and the numbers ought to have been six—in fact, just double. But, assuming your figures for the 9th Lancers to be correct, what do they amount to? The regiment contracted in

Aldershot, protected	24	primary sores	in 1871
York, unprotected	54	,,	in 1873
York (at the rate of)	28	,,	in 1874
Colchester, protected (ditto)	10	,,	in 1874

That is to say, in protected Aldershot, it contracted 24 cases in 1871, and in unprotected York 28 cases in 1874—a difference so small as to be worthless in the argument. In unprotected York, however, there were 54 cases in 1873; and, during five months in protected Colchester, there were only (at the rate of) 10 cases *per annum*. But when I turn, for some other protected and unprotected station, to the Army Returns for 1871, I find that in unprotected Canterbury there was a ratio of only 45 in 1869; whilst there was a ratio of 152, *i. e.*, three or four times as many, the following years, when it had become protected. So that even your own figures—relating to only a single regiment, and that a regiment picked out by your private official informant, to show the indisputable superiority of a protected over an unprotected town—fail in their proof when tested even by themselves, and when compared with other protected and unprotected places.

Fallacy arising from the Removal of Troops, sometimes Diseased and sometimes Non-Diseased, from Station to Station.—It is difficult to state your argument on this head in few words; but, if I understand it aright, you say that the increase of venereal sores in Windsor, from 58 per 1000 the year before the Acts were introduced into it, to 96 per 1000 in 1872, is no proof that the Acts have been a failure there, because the increase is due to diseased soldiers having been sent into it. By this mode of reasoning, a fall of disease in some other town—say Plymouth—is no proof of the success of the Acts there, because it may be due to healthy soldiers having been sent into it. If I understand your argument correctly, it is, that the amount of disease shown in the Army Returns, in any particular station, does not indicate the disease contracted there, but the amount sent into it. Now, it must be remembered that the transfer of troops has always been taking place, and affects the ratios no more now than it did before the Acts were introduced; and as to where disease is contracted, I shall merely observe that the statements of the men are open to the gravest doubt. It is continually mentioned in the Army and Navy Reports, and also before the Royal Commission, that the men said they could not tell where they contracted it—they were too drunk, or they went to so many places, or any excuse that would relieve them from the odious position of betraying their companions.

With two illustrations, as to the contracting of disease in unprotected places, taken from the Navy Reports for 1869 and 1870, I shall conclude, having, as I believe, answered all your criticisms that affect the substance of my "statement".

Navy Report, 1869, page 13. The surgeon of the *Agincourt* writes: "While on long leave, many of the men visited remote parts of the kingdom; and, although a great many admitted they had "gone with women" in unprotected towns and villages, I am bound to say that most of them escaped; and, of the numbers of cases for the entire period, the proportion of those contracted in protected to those not so favoured stands in the ratio of 15 to 14."

Now, *per contra:*

Navy Report, 1870, page 21. The surgeon of the *Duke of Welling-*

ton says: "The men who thus swell the sick-list are, on an average, away on leave in other parts of the country only one month out of twelve, *fully proving** how prevalent the disease must be in other localities which have not the benefit of the Contagious Diseases Acts like Portsmouth." Query.—Which of these two conflicting reports is to be accepted as most nearly representing the true state of things?

I shall have pleasure in continuing this correspondence on this important sanitary measure; but I must, at the outset, observe that I shall not feel bound to notice any statistics which have not the stamp of official authentication, by being published in documents accessible to the opponents as well as the advocates of the Acts. If their advocates cannot find convincing proofs of their sanitary success in the published official Reports for six years previous to the Acts and six years subsequently, they must not expect their opponents to acknowledge the validity of statements, made upon private authority, and without means of verification or comparison. I am, etc.,

J. Birkbeck Nevins, M.D.Lond.

3, Abercromby Square, Liverpool, December 12th, 1874.

⁂ Dr. Nevins invites us to a continued correspondence on the Contagious Diseases Acts; we must decline his invitation, being mindful that "he who is convinced against his will, is of the same opinion still", and nothing in Dr. Nevins' reply induces us to esteem him an exception to this old saw. In acknowledging that he has altered the sense of one of his quotations by leaving out its context, Dr. Nevins ventures to "challenge" us without fear to produce another. We *did* produce another in our review. We allude to the change of meaning by omission of context, in the third quotation at the foot of our author's very elaborate title-page, in which, by abridgment and parenthesis, an attempt is made to lead his readers to believe that Lord Hampton, Sir J. Trelawney, and other commissioners, in condemning the Act of 1864, were, *à fortiori*, condemning that of 1866. Now, let us read the paragraph in full instead of stopping at the words, "This is a dangerous power". It will then be seen, that those gentlemen were strongly in favour of the present Acts, but objected to any renewal of the power granted to the police in 1864, withdrawn, however, in 1866, by the present Act; being, as they themselves said, as much or more afraid of its failure from over-caution as of its abuse from over-zeal.

With reference to the prevalence of gonorrhœa, Dr. Nevins, as usual, quotes fragments which suit his purpose, and gain strength by isolation from their context, thus materially augmenting their value in his favour. We ground our opinion that, in the protected districts, the amount of gonorrhœa is affected by the Acts, on the table, page 815, of the minutes of evidence before the Royal Commission; where, it appears, the *number* of men constantly under treatment for gonorrhœa has increased year by year in protected districts, and diminished year by year in the unprotected districts. This, at first sight, shows badly for the Acts, and possibly has misled some of their opponents; but, as the number of troops included in the districts under the Acts has greatly increased, and in those not under the Acts has greatly diminished, the increase in the number constantly disabled in the former, and the decrease in the latter, is thus clearly explained. There is, however, it will be seen, no real increase of gonorrhœa in the protected districts, but, on the contrary, a diminution; for, while the ratio per 1000 in the unprotected has remained nearly the same from 1866 to 1870, it has fallen during the same period in the protected districts from 5.80 to 4.55.

We do not know what Dr. Nevins means by his "practical commentary" in connection with the Home and Mediterranean Stations; for, as the Acts do not apply to the Mediterranean, and as Naples, Messina, etc., are numbered among its stations, any statistics from those districts can have no bearing on an Act which applies only to the United Kingdom.

The statistics collected by Dr. Nevins relative to the increase or decline of primary syphilis are also valueless; for, in the "syphilitic group" is included bubo, a condition arising very frequently from gonorrhœa. To infer that certain of a group of affections have been lessening because the whole of that group has lessened, is an untenable position, and till some more weighty evidence is produced respecting the amount of venereal sores contracted at the protected districts before they were separately classified and counted, than Dr. Nevins' quotations from the Army Medical Reports about syphilitic and gonorrhœal groups of disease, we decline to accept his comparison. He next admits that we have exposed another error, which he will take care to correct in future editions of the "statement", and then proceeds to accuse us of a similar fault. We deny that we have done anything of the kind, and must ask him to re-read our review, with a more active exercise of his "judicial impartiality".

We are at a loss to comprehend some of his complaints of our criticisms; but we perceive that he continues to blunder in the manner already pointed out to him. He compares the entries at Windsor in 1867 with those in 1872, 58 against 96, to show the Acts have not lessened disease. But the advocates of the Acts may just as fairly compare the entries of 1868 with 1872, 136 against 96, to show they *have* lessened it. This is simple blundering, for we have already pointed out that all stations fluctuate one year with another, and it is only by watching the course of the entries at the *same* station through a series of years that we arrive at a trustworthy proof that the amount of disease is really increasing or diminishing. Dr. Nevins supposes that, as migrations of troops have been always going on before, as well as after, the Acts were passed, the returns at the protected districts are no more affected by the introduction of diseased men when a regiment changes its quarters now than formerly; and that the evidence that the disease is introduced and not contracted in the protected districts, rests on the statement of the men themselves. He is wrong on both points. First, a regiment arrives in a protected district; it is examined on its arrival, and the diseased men detected. (See Mr. Myers's account of the Coldstream Guards in the Journal for October 31st.) These men are sent to hospital, and the regiment gradually gets nearly clear of disease; it then is transferred to a non-protected district in a healthy condition. It is obvious that the men detected when the regiment reached the protected district, help to raise the ratio of that district; while the effect of the sanitary measure in the district under the Acts, is to diminish the entries in a district where they do not operate, by sending it troops less diseased than it received. Lastly, the evidence that the disease is imported rests on the fact, that the men are examined before they have had time to become infected in their new quarters, when they arrive as a body, or singly from leave on furlough.

With regard to the trustworthiness of the statistics of a later date than 1872, which we have used in our review, in order to show that further experience of the Contagious Diseases Acts maintains their value, we may state that all are from the current official returns at the War Office, except the account of the condition of the 9th Lancers, for which we are indebted to the surgeon-major of that regiment.

POISONOUS DOSE OF MORPHIA.

Sir,—Four minims of tincture of opium equal nearly a quarter of a grain of opium. I suppose the case you quote gives the above as the smallest quantity on record which, having caused death, was detected by analysis of the contents of the stomach. The Romford powders contained half a grain each of compound ipecacuanha powder, or a twentieth of a grain of solid opium only. If such a minute dose have ever caused death, is there any evidence forthcoming "that the reaction of morphia and meconic acid were obtained in the contents of the stomach"? (Not analysed in the Romford cases, I believe.)

I am, etc., S. W. S.

⁂ Our correspondent commences by referring to what we stated, that four minims (equal to a quarter of a grain of opium) is the smallest quantity that has proved fatal, and concludes by asking if, when one-twentieth of a grain has caused death, the reactions of the poison have ever been obtained. There being no cases of the kind, of course we cannot say. We may state, however, that we have obtained all the reactions of both morphia and meconic acid from a mixture of two drops of laudanum in a tablespoonful of rich soup, and that we have obtained distinct reactions from the contents of the stomach of a dog, to which we administered three drops of laudanum, and which was an hour and a half afterwards poisoned with prussic acid. There is no evidence whatever, that we know, to prove that the Romford powders only contained half a grain each of compound ipecacuanha powder (equal to one-twentieth of a grain of opium). All the facts with which we are acquainted prove that the dose was very much larger. The position of the case is as follows. 1. Four children die from taking teething powders. The symptoms point to a narcotic poison. That poison is probably morphia. 2. A fractional dose of morphia might cause one child's death, owing to some peculiar idiosyncrasy of that child. It is not likely that such peculiar idiosyncrasies should exist in all the four children to whom the powders were administered. 3. Apart from the probability of the case, the character of the symptoms points to the quantity administered being "a full poisonous dose". What that dose really was, however, there is no evidence to show. 4. The analyst found *some organic matter* in the powder; but whether that organic matter was opium or not, he could not say. 5. We consider that, had the contents of the stomachs of the children been examined by a competent toxicologist, in one or other, and probably in all, the reactions of opium, if it had been the cause of death, would have been obtained. This was not done, and we contend it ought to have been done. Such cases as these show how sad may be the results of unsatisfactory investigations by unpractised hands when the issue of the trial is life and death.

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* The italics are mine.—J. B. N.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

Mr. E. M. Thompson of Billinghay, near Sleaford, Lincolnshire, has received a grant of £8 14s. for successful vaccination, making the fourth grant during the last eight years.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

SUNDERLAND.—In a report issued by Dr. Yeld, medical officer of health to the borough of Sunderland, several points bearing upon the sanitary condition of towns are dealt with in a manner which is calculated to be of considerable use to the Sanitary Authority, to whom it is addressed. The ventilation of the sewers is first discussed, and the various plans adopted in several large towns in the north of England appear to have been subjected to a personal inspection before any conclusion was arrived at. The principal means adopted in Sunderland, is to convey the foul air above the level of the house-tops by tall chimney-shafts, and by down spouts in direct communication with the sewers; and the extension of this plan is the one recommended for adoption. The Corporation are asked to insist on all water-closet soil-pipes in new houses being provided with means of ventilation, and they are further requested to recommend the adoption of the same system in all existing houses. Wherever the water-closet system prevails, the carrying out of this plan is attended with good results, provided it is universal, and the size of the ventilating-shaft is not too small. Respecting the registration of tenemented or sublet houses, Dr. Yeld speaks highly of the results attained in Liverpool, where nearly 11,000 such houses are registered, and where they are periodically inspected both by day and night by a staff of inspectors. Discretion is used in selecting the houses to be registered, and hitherto but little opposition has been met with, for the landlords now find that, when their houses are thus registered, they are necessarily kept in a cleanly and healthy condition, and they are doubtless rendered more attractive to the respectable portion of the population who have to seek such houses. To such a town as Sunderland, the registration of houses which are sublet must be a condition essential to the prevention of disease. Overcrowding and dirt, which, especially when combined with destitution, are such fruitful means of spreading typhus, are thereby prevented; general cleanliness and good ventilation are ensured; the necessity of immediate notice being given in the case of any infectious disease arising, tends to prevent its spread; and, in many ways, the comfort and the healthiness of the occupants are provided for. The report also deals with the various methods adopted for the removal of excrement and refuse in towns. In Sunderland, this matter is, with the exception of water-closets, evidently much neglected, for the Authority does not itself undertake the scavenging, except in isolated cases, and this, in such a town, must involve neglect on a large scale. Even if the Rochdale system were adopted, it is calculated that the cost to the ratepayers would be only about one quarter of that which is incurred when each householder pays separately for the removal of his refuse. Dr. Yeld naturally proposes that the Corporation should, without delay, take up the question of the collection and proper disposal of the midden contents. Hospital and mortuary accommodation, and the provision of disinfecting apparatus, are also considered. The whole report has evidently been thoughtfully prepared, and the recommendations it embodies might with advantage be applied to many towns.

POOR-LAW MEDICAL APPOINTMENTS.

FLINN, David E., L.R.C.S.I., appointed Medical Officer for the Lamplugh District of the Whitehaven Union.

GARDNER, Frederick, M.R.C.S.Eng., appointed Medical Officer and Public Vaccinator for No. 7 District of the Barnstaple Union.

LUPTON, Harry, L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator for the Alveston District of the Stratford-on-Avon Union.

MCCARTHY, C. W., L.K.Q.C.P.I., appointed Medical Officer to No. 3 District of the Buckingham Union.

PRYNNE, Edward M., M.R.C.S.Eng., appointed Medical Officer to No. 3 District of the Plymouth Union.

MILITARY AND NAVAL MEDICAL SERVICES.

MOVEMENTS OF ARMY MEDICAL OFFICERS.—89th Regiment, Staff-Surgeon F. E. Barrow, attached, has applied for leave to England on medical certificate.—Surgeon-Major T. K. Burne has been appointed to the medical charge of the 66th Regiment.—Surgeon-Major Clarke, 69th Regiment, has returned to Gibraltar to resume duty from leave of absence.—Surgeon-Major Adsetts remains in medical charge of the 2nd Battalion 23rd Regiment, on promotion.—Surgeon-Major Davis, 2nd Battalion, 12th Regiment, has been appointed to the medical charge of the Dalhousie Convalescent Depôt, *vice* Surgeon-Major Skues.—Staff-Surgeon K. Hyde has been appointed medical officer of the first Battalion 1st Regiment, *vice* Surgeon-Major Ross, M.D., appointed to the medical charge of the 60th Brigade Depôt at Hamilton.—Surgeon-Major Gore has been appointed to the medical charge of the Military Prison at Arbour Hill, Dublin, *vice* Surgeon-Major Tufnell, retired.

OBITUARY.—Deputy Surgeon-General H. B. Buckle, C.B., died on the 12th inst. He obtained his first appointment in the medical service of the Hon. East India Company in March, 1844; attained the rank of surgeon-major in March 1864, and in 1865 was appointed principal medical storekeeper of the Government of the Bengal Presidency. He had served in the Punjaub campaign, including the passage of Chenab, and battles of Chillianwalla and Goojerat, and had received the medal and clasps. In recognition of his services he was, in 1865, nominated a companion of the Order of the Bath.—The death of Surgeon-General R. J. O'Flaherty, C.B., principal medical officer of the Queen's troops, has been announced, but no particulars have as yet been received. The vacancy caused by this event will lead in regular course to the promotion of Deputy Surgeon-General Dr. J. G. Inglis, C.B., who is at present serving at Meerut. The removal of Dr. Inglis to Bombay, will necessitate the move of a deputy surgeon-general from England to India.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on December 21st, 1874.

Andrew, George, St. Bartholomew's Hospital
Benton, Samuel, Wakering, Southend
Brewer, Reginald Edward Wormald, Newport, Monmouthshire
Clarke, Henry, Guy's Hospital
Crocker, Henry Radcliffe, University College Hospital
Day, Charles Henry, 12, Doughty Street
Harper, Gerald Samuel, 121, Warwick Street
Homan, George William, King's College Hospital
Lawrence, Thomas George, 3, Rutland Street
Mutch, Robert Samuel, 38, Gower Street
Newman, Charles, 1, Pennywell Road, Bristol
Richardson, John Billingsley, 13, Portsea Place
Ross, George Hamilton, 11, Hart Street
Smith, Henry Hammond, 23, Craven Street
Smith, Herbert Neale, Richmond Villa, Brighton
Spitta, Edmund Johnson, Clapham Common
Talbot, Joseph Bindley, County Asylum, Shrewsbury
Taylor, John William, Charing Cross Hospital
Thomas, Herbert Henry, 26, Rutland Street
Thomson, Peter James, 52, Harrington Street

The following candidates, having passed in Medicine and Midwifery, will receive the College License on obtaining a qualification in Surgery recognised by this College.

Edwards, Roger, University College Hospital
Murrell, William, 12, York Street, St. James's Square

Admitted Member.

Folkard, Henry, 18, Blenheim Crescent

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meeting of the College, held on Tuesday, Wednesday, and Thursday, December 8th, 9th, and 10th, 1874, the License to Practise Medicine was obtained by—

Burton, Harry
Cooper, John Nield
Duke, Alexander
Duke, Mansergh Pace
Grosholz, Frederick Harmann
Herapath, C. K. C.
Johnston, John Somerville
Murray, Henry George
O'Farrell, Denis Paul
Wilding, William Arthur

The License to Practise Midwifery was granted to—

Burton, Harry
Chester, William Litchfield
Cooper, John Nield
Duke, Alexander
Duke, Mansergh Pace
Grosholz, Frederick Hermann
Johnston, John Somerville
Murray, Henry George
Preston, Augustus Richard Richard

The License to practise as a Midwife and Nurse-tender was granted to—
Carroll, Miss Frances Jane

UNIVERSITY OF CAMBRIDGE.—Third examination for M.B. Degree. Examined and approved.
Charnley, M.A., St. John's; Edmunds, B.A., St. John's; A. Newington, Caius; and Ranking, B.A., St. Catharine's.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABERYSTWITH INFIRMARY—Surgeon.

ATHY UNION, co. Kildare—Medical Officer and Public Vaccinator. Salary, £120 and fees.

BECKETT HOSPITAL and DISPENSARY, Barnsley—House-Surgeon. Salary, £140 per annum, with furnished rooms, attendance, coals, and gas. Applications on or before January 1st, 1875

BLACKBURN UNION—Medical Officer for the Harwood District. Salary, £25 per annum.

BLYTHING UNION—Medical Officer for No. 9 District. Salary, £39 per ann.

BRADFORD UNION—Medical Officer for the Workhouse. Salary, £225 per annum.

BRIDGWATER UNION—Medical Officer for No. 2 District. Salary, £70 per annum.

CASTLE WARD UNION—Medical Officer for the Ponteland District. Salary, £20 per annum Also, the Workhouse. Salary, £30 per annum.

CITY ORTHOPÆDIC HOSPITAL, Hatton Garden—Assistant-Surgeon. Applicants must be F. or M.R.C.S. Applications on or before January 2nd, 1875.

DUNDEE ROYAL INFIRMARY—Resident Medical Officer. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 30th instant.

DUNNING, Parish of, co. Perth—Medical Officers. Applications on or before January 1st, 1875.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—Assistant-Surgeon.

ESSEX LUNATIC ASYLUM—Second Assistant Medical Officer and Dispenser. Salary, £100 per annum, with board, lodging, and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road—Physician. Applications to be sent on or before January 1st next.

FIFE AND KINROSS DISTRICT ASYLUM—Assistant Physicianship. Salary, £80, with board, etc. Apply to Dr. Fraser, Medical Superintendent, Cupar-Fife.

GLOUCESTER INFIRMARY—Surgeon and Assistant-Surgeon. Applications on or before the 31st instant.

GREAT NORTHERN HOSPITAL, Caledonian Road—One Physician and one Surgeon. Applications to be sent in on or before January 12th, 1875.

GREENWICH UNION—Workhouse Medical Officer. Salary, £300 per annum. Applications on or before January 7th, 1875.

HARRIS, Parochial Board of—Surgeon. Salary, £66 per annum, including vaccination and medicine for the poor. The gentleman elected will get £90 per annum for attending the ratepayers and cottars within South Harris. Applications to be made to the Chairman of the Parochial Board of Harris.

HEADINGTON UNION—Medical Officer for the Wheatley District. Salary, £70 per annum.

HOSPITAL FOR INCURABLES, Manchester—Dispenser. Applications on or before the 31st instant.

HOSPITAL FOR WOMEN, Soho Square—Surgeon and Assistant-Physician. Applications on or before January 4th, 1875.

INDIAN MEDICAL SERVICE—Twenty appointments as Surgeon. Examination in February 1875.

LEEK UNION—Medical Officer for the Workhouse. Salary, £85 per annum.

LICHFIELD UNION—Medical Officer for the Alrewas District. Salary, £35 per annum.

LLANELLY UNION—Medical Officer and Public Vaccinator for the Kidwelly District. Salary, £20 per annum, and fees. Applications to be sent in on or before January 6th, 1875.

MANCHESTER UNITY OF ODD FELLOWS MEDICAL DISPENSARY, Hull—Surgeon. Salary, £175 per annum, with house, coals, and gas. Applications on or before the 26th instant.

MIDDLESEX HOSPITAL—Surgical Registrar. Applications on or before January 8th, 1875.

MIDDLESEX LUNATIC ASYLUM. Hanwell—Assistant Medical Officer.

MITFORD and LAUNDITCH UNION—Medical Officer for the Workhouse. Salary, £45 per annum.

MORVEN (Parish of), Argyleshire—Medical Officer. Salary, £100 per annum. Testimonials to be sent in on or before the 30th December, to H. A. Fraser, Morven, Fort William, N.B.

NEWCASTLE-UPON-TYNE BOROUGH LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications on or before the 26th instant.

NORTH BRIERLEY UNION—Medical Officer for the Seventh District.

NORTH-EASTERN HOSPITAL FOR SICK CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £100 per annum, with attendance, rooms, coals, and light.

PLOMESGATE UNION—Medical Officer of Health. Salary, £100 per annum. Applications on or before the 26th instant.

PLYMOUTH UNION—Medical Officer for No. 3 District.

REDDITCH and DISTRICT MEDICAL ASSOCIATION—Medical Officer. Salary, £150 per annum, with fees and unfurnished house.

RICHMOND (Surrey) UNION—Medical Officer for the Richmond District. £100 per annum.

RISBRIDGE UNION—Medical Officer for the Fourth District.

RYDE DISPENSARY—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Physician.

ST. LUKE'S HOSPITAL FOR LUNATICS—Second Clinical Assistant. Board and furnished apartments.

ST. PANCRAS UNION—Medical Officer for No. 8 District. Salary, £120 per annum. Applications not later than 10 A.M. on the 29th instant.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—House-Surgeon. Salary, £100 per annum, with board, lodging, gas, and washing.

SLEAFORD UNION—Medical Officer for the Sleaford District and the Workhouse. Salary, £50 and £30 per annum respectively.

SMALLBURGH UNION—Medical Officer for the Ludham District. Salary, £52 : 14 per annum.

STRATHKINNESS, Village and District of—Medical Officer. Salary, £10 from Parochial Board, with £110 from a workmen's club, exclusive of midwifery fees. Apply to Mr. A. Cowper, Kincaple, Cupar Fife.

SURREY DISPENSARY—Additional Surgeon. Applications on the 22nd inst.

SWANSEA URBAN AND PORT SANITARY DISTRICT—Medical Officer of Health. Salary, £200 per annum, and fees.

TENDRING UNION—Medical Officer for the First and Second Districts. Salary, £97 per annum.

TORPHINS in the Parish of Kincardine O'Neil, Aberdeenshire—Parochial Medical Officer: £45 per annum. Applications to Chairman of Parochial Board.

TRINITY COLLEGE, Dublin—Professor of Chemistry: £500 per annum, and fees. Applications to the Rev. Dr. Haughton, Trinity College.

TYNEMOUTH UNION—Vaccination Officer.

UNIVERSITY OF EDINBURGH—Additional Examiner in Medicine.

WESTERN DISPENSARY, Broadway, Westminster—Resident Medical Officer. Salary. £105 per annum, with apartments, coals, and gas. Applications on or before the 31st instant.

WOOLWICH UNION, Kent—Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £60 per annum, with board, lodging, and washing. An additional salary of £20 per annum will be given for dispensing for the poor of the Plumstead District.

WORKSOP DISPENSARY—Resident Surgeon. Salary, £100 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before January 1st, 1875.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BLACKMORE, H P., M.D., elected Physician to the Salisbury Infirmary, *vice* J. Roberts, M D., resigned.

CARRE, George E., M.D., appointed Resident Medical Officer to the Castlebar District Lunatic Asylum.

LEE, F. F., M B., elected Physician to the Salisbury Infirmary.

PIRRIE, Gustavus F., L.R.C.P.Ed., appointed Attending Physician to the Ulster Hospital for Children, Belfast.

POWELL, Joshua, M.R.C.S., appointed Senior House-Surgeon to the Royal Free Hospital, Gray's Inn Road. *vice* H. W. Saunders, F.R.C.S., resigned.

PRINCE, Frederick T., M.R.C.S.Eng., appointed Resident Medical Officer to the St. George's (Hanover Square) Dispensary, *vice* E. S. Lee, M.R.C.S.Eng., resigned.

PURDON, Edward, L.R.C.P.Ed., appointed Assistant Medical Officer to the North Riding Lunatic Asylum, Clifton, Yorkshire, *vice* H. C. Gill, M.R.C S.Eng.

RAYNER, Edwin, M.D., appointed Analyst to the Borough of Stockport.

SMITH, W. A., Esq., appointed House-Apothecary to the Bridgwater Infirmary, *vice* J. W. Gilbert, Esq., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

WHITLING.—On December 14th, at Croydon, the wife of *H. Townsend Whitling, Esq., of a son.

MARRIAGE.

GREEN—YATES.—On December 16th, at Milton Church, Stourport, by the Rev. W. Lea, Vicar of St. Peter's, Droitwich, and the Rev. B. Gibbons, Vicar of the parish, William Edward Green, Surgeon, Neath, to Emily Baldwin Yates, adopted daughter of T. J. Baldwin, Esq., of Stourport.

DEATH.

THURSFIELD.—On December 14th, at 39, High Street, Bridgnorth, aged 36, Mary, the dearly beloved wife of *William Thursfield, M.D.

TESTIMONIAL.—The inhabitants of Wrexham are subscribing to a testimonial to Mr. T. T. Griffith, of that town, in acknowledgment of the zeal and energy which he has shown for a period of forty-two years in aiding and supporting the infirmary of that town. As Mr. Griffith will, in the course of next month, attain his eightieth year, his friends think that to be the most appropriate season to make the presentation, which will consist of his portrait in oil.

TESTIMONIAL TO MR. H. A. REEVES.—At a meeting of the students of the London Hospital Medical College, held on December 11th, Mr. H. A. Reeves, Assistant-Surgeon and Demonstrator of Anatomy, was presented with a very handsome *post mortem* case and a set of bone forceps, of exquisite design. Mr. Berdoe, in a brief address, expressed, on behalf of his brother students, that the testimonial carried the good feeling of every student in the dissecting-room; and added that old members were not backward in contributing towards a testimonial to one whose ability, perseverance, and kindness could only be measured by his courtesy. Mr. Reeves, in accepting the testimonial, thanked the students, and assured them that no effort would be wanting on his part to advance them in their studies; and it would always be his aim to preserve that proficiency which had so long existed in the Medical College of the London Hospital. At the conclusion of the meeting, a vote of thanks was passed to Messrs. Berdoe, Burnes, Dalton, and White, for the manner in which they discharged their duties in connection with the testimonial fund.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.
FRIDAY.........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 9.30 A.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES TO CORRESPONDENTS.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, in forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

Authors desiring reprints of their articles published in the Journal, are requested to communicate beforehand with the printer, Mr. T. Richards, 37, Great Queen Street, W.C.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Communications respecting editorial matters, should be addressed to the Editor: those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C.

Teething Powders.

Sir,—The British Medical Journal for November 14th has some remarks on "teething powders" and the supposed deaths by their means of four children at Romford. As these cases were carelessly reported in the daily papers, from which you obtained your information, perhaps a short account of the circumstances will be of some interest.

On October 27th, I was sent for to see a child named Keeble, supposed to have croup. I found it suffering from symptoms of narcotic poisoning. Being told that a "teething powder" had been given to the child, and knowing that teething powders, as a rule, contain opium, my impression was that the child, suffering probably from some hyperæmia of the cerebral vessels as a consequence of teething, had received what, in such a condition, would be a fatal dose of opium. The child died, and I refused a certificate of the cause of death until I knew what the powder contained. This led to a conference with the chemist from whose establishment the powder was obtained, and to the discovery that, instead of the ordinary teething powder, hydrochlorate of morphia had been given by mistake. On the same day, I saw another child (Adams), also suffering from narcotic poisoning, and which child had also had from the same shop what was supposed to be a teething powder. In this case, I used the stomach-pump, and detected in the contents of the stomach unmistakable evidence of the presence of morphia by means of the nitric acid test. The matter was now placed in the hands of the police, and the deaths of two more children (Copsey and Brazier) ascertained to have followed the administration of teething powders obtained from the same source as the others. *Post mortem* examinations were made in all the cases (upon Keeble, Adams, and Brazier, by myself, and on Copsey by its own medical attendant). The appearances in all the cases were identical; viz., distension of the right side of the heart with fluid blood, and extreme cerebral congestion. The result of the *post mortem* examination, the similarity of the symptoms in all the cases, and the detection of morphia in the contents of the stomach of Adams (obtained by means of the stomach-pump), as given in evidence at the inquest, were considered by the jury as sufficient evidence of the cause of death, without submitting the contents of the stomach, etc., to the analysis of an expert; and a verdict was rendered to the effect that the four children died from the effects of narcotic poisoning administered by mistake.

Romford, November 17th. I am, etc., Alfred Wright.

H. M. (Manchester).—The fault is your own. Had you referred to our advertising columns, you would have seen when the examination took place. It commenced on Tuesday last, and was brought to a close this day (Thursday).

The Treatment of Habitual Drunkards.

Sir,—It may be of interest to your readers to know that the legislature of Victoria, Australia, has recently passed an Act for the restraint of "habitual drunkards". During a recent visit to the colony, I found the Act generally approved of by the people there, and great good was expected from it. The government had provided a suitable asylum, with a medical superintendent, for the reception and treatment of such cases. In January last, there were six patients under treatment in this institution; but the Act was too recently in force to judge fairly of its effects. The form that is gone through in order to commit a drunkard is much the same as we have in this country for lunatics, and I believe the period of discharge is left to the discretion of the medical officer and committee. I am, etc.,

November 1874. Duncan Turner, L.R.C.P.Lond.

Correspondents are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

The Physiological and Chemical Actions of Alcohol.

Sir,—It would appear from comments on my paper on Alcohol, in a recent issue of your Journal, that I have not explained my views clearly enough to be understood. In the main, I aimed to direct the attention of the profession to the causes producing the stimulant and narcotic symptoms following the administration of doses of alcohol. I do not deny that both are manifested, but I do maintain that they result from different exciting causes. I maintain that the two series of nerves—cerebro-spinal and ganglionic—act in antagonistic ways, and that the former are urged into action by stimulants, and manifest stimulant or excitor phenomena; while the ganglionic are acted upon by narcotics, and exhibit lowering or depressor phenomena. The two series of nerves act and react upon each other, and are designed to maintain the functions of the body in a healthy equilibrium. Hence in disease, when the cerebro-spinal nerves are severely stimulated, as in fevers, the true and common-sense plan must be (after endeavouring to remove the cause) to act on the antagonistic nerves—*i.e.*, to give sedatives or gentle narcotics. When again nature is exhausted, and the disease is chronic or asthenic, the treatment (after endeavouring to remove the cause) should be to gently stimulate the defective powers. In all cases, the nutrition of the body should be carefully sustained, but at the same time the powers of the stomach to digest the nourishment should be studiously considered. A short time ago, I was attending a child suffering from acute bronchitis. I allowed it weak milk-and-water and very weak beef-tea. When convalescent, I was sent for suddenly: the child was flushed, breathing hard, and appeared as if about to suffer from epileptic convulsions. On making inquiries, I found that the friends had made a very strong beef-tea, which they had given to the child to strengthen it. On relieving the symptoms, and enforcing the lighter regimen, the child rapidly got well and regained strength.

It is a difficult matter to prove deep problems in the necessarily limited space afforded to a letter in a public journal: I hope, however, shortly to be able to prove to the profession that all medicines act physiologically in one way only. They act by calling into action certain nerves, and the action is modified or increased according to the strength of the dose given. If given, however, in doses incompatible with the healthy performance of the functions of the body—*i.e.*, in poisonous doses—nature, by innate power, calls into action the antagonistic nerves, so as to re-establish healthy equilibrium. If the poison-dose be increased, nature is defeated and life succumbs. To explain my theory, aconite tincture in very small doses—1-12th or minus, to 1 minim or plus, lowers the heart's action; 1 to 15 minims, or plus doses—act as a poison. The direct effect would be to stop the heart's action, and so destroy life. The opposite system of nerves is thus indirectly called into action, and the symptoms are excitor. If now the dose of aconite be increased, the power of such dose over the sympathetic is so great that it cannot be overcome by the efforts of nature, and the patient sinks. In all the doses the aconite acted as a narcotic; but in the medium, nature endeavoured to right herself. and to preserve life. All medicines thus act physiologically in one way only. They may have other actions, but these are chemical or mechanical. Thus all alcohol acts as a stimulant. If given in strong enough doses, it stimulates to death, the victim often dropping down, as if struck by lightning. This has been described as shock, but such term is unscientific, and conveys no physiological explanation. If the theory of over-stimulus to a portion of the brain, and subtraction of the nerve-currents from the lower part of the spine, be incorrect, and believed by few except myself, why is it that when I drew the currents down the spinal cord by strichnine, a rabbit was enabled to live under such a severe dose of alcohol (equal to seven or eight pints of spirit for a man), and neither drop down dead nor get drunk? I shall not give up my belief because of dogmatic denial, nor until I have shown to me a more feasible explanation. As to the carbonic acid, I should expect, if I injected the veins with carbonic acid, that the operation would be followed by stupor or sleep. Is there not an increase of carbonic acid after food, and especially after dinner, when, if a person have not active exercise, he is apt to sleep? Is there not, also, an increase of carbonic acid in the night time, when it is more easy to sleep than in the day? Is sleep to death not brought on by accumulation of carbonic acid in drowning; and of carbonic acid and carburetted hydrogen in choke- or after-damp in colliery explosions? And, seeing that alcohol burns off in the body, is there anything to prevent the accumulation of carbonic acid and other impurities—compounds of carbon, hydrogen, and oxygen—in the blood? That alcohol is a stimulant, is shown by its effects on different people. The greater the nerve-power or strength, or the less the respondent power (through continued use) in the nerves, to the alcoholic stimulus, the less is the liability to drunkenness. When, however, the brain cannot sustain the stimulus (exhausted), and the nerve-currents are withdrawn from the lower part of the body, the carbonic acid has greater power, and drunkenness and insensibility set in. Thus the stimulant action is the result of the alcohol acting on the nerves; and when these nerves can bear the strain without succumbing (exhausted), or when the stimulant action is modified (by use or by stimulating distant parts, as with strychnine), there is no drunkenness. When, however, these nerves are over-stimulated (exhausted), the antagonistic (ganglionic) nerves endeavour to restore the equilibrium, and especially under the influence of the carbonic acid, which under the circumstances induces sleep. The narcotic symptoms are not the direct result of the alcohol, as some people who are continuously drinking never seem to get drunk, and as was shown in the case of the rabbit. They are the result of the carbonic acid on the exhausted animal. I fail to see any analogy between the action of alcohol and that of a kite. The latter would fall to the ground because of the law of gravitation; but it would not rise because of an increased gravitation, but because of the action of the currents of air and the reaction of its induced resistance. I repeat, then, that undecomposed alcohol is a pure stimulant, but that when the system is exhausted, the carbonic acid generated by its decomposition narcotises. I also maintain with Mr. Editor, that alcohol may tide over a difficulty, as in the case of the lady of Engadine; but to say that it is the correct remedy in fevers, is to fall into the homœopathic error, and say "like cures like". I am a firm believer in *contraria contrariis curantur*, and forbear. in acute diseases, exciting a higher state of fever by giving further stimulants. The profession have a perfect right to prescribe alcohol, if necessary, but let them prescribe it pure, and thus know the doses, etc. Brandy and port wine *ad libitum* is not prescribing—it is reckless play, ill becoming intelligent men. I am, etc.,

December 11th, 1874. Thomas P. Lucas.

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. Fowke, not later than *Thursday*, twelve o'clock.

Medical Degrees and Titles.

Sir,—I would urge those practitioners who desire to obtain the degree of Doctor of Medicine, to sign a petition requesting some British University to admit candidates possessing medical and surgical qualifications to an examination without residence. Most continental Universities grant degrees in this manner. If the examination were made a searching one, no injustice would be done to the graduates who have "resided". It may be stated, in answer to my remarks, that the London University is open to all, but, owing to its regulations, and the fact than an unusually long course of hospital work and lectures must take place subsequently to matriculation, it is practically barred to most ordinary students, with limited time and capital, and whose parents are probably not cognisant of the value of its degree. In conclusion, it is most certainly a fact that the bulk of the British public attach an extraordinary and undue importance to the M.D. degree, from whatever source it may be obtained; hence the anxiety of so many well-to-do practitioners to secure it. I am, etc., Llewelyn Thomas.

Sir,—I graduated in 1862, since which time I have been actively engaged in my profession: I read hard, work hard, and am as successful at the bedside as most men. For some years I have practised as a physician; but as I did not know in the early part of my career what line I should take up, I did not seek the M.R.C.P. on account of its prohibitory clauses. Now that I am virtually a physician, and am never likely to dispense, I am anxious to have this College of Physicians' degree: but, as matters stand, it is almost, if not quite, an impossibility. I am just a year too late to be examined under the special arrangement of the College, and therefore I must undergo four consecutive days' examination. Now, sir, I am happy to say I am far too busy to be able to spare the necessary time either for systematic preparation or for this lengthy examination. Latin I have not studied for sixteen years, and some other matters would require brushing up. I am prepared to undergo any practical test that the College could impose in one afternoon or evening, and I think two hours' oral and half-an-hour of clinical work should be sufficient to show whether a man already in active practice is fitted to hold the degree with honour to the College and credit to himself. Any one of good status, of over ten years' standing in his profession, and holding a first-class medical degree, should certainly, I think, be able to obtain the four coveted letters without having to undergo a four days' examination. The title in no way makes an M.D. a better physician, and would be practically a supernumerary degree to a man already licensed to practise medicine if certain appointments were not reserved for holders of the M.R.C.P. Possibly a more liberal policy may soon supervene, and the best man win whatever are his degrees.

November 1874. I am, etc., M.D.Edin.

Sir,—In the voluminous correspondence on this question which has recently occupied much of your space, one important point appears to have been overlooked——namely, What really consitutes a physician? Certainly not the degree of M.D. in itself. The academic distinction confers no legal right either to practise or to recover fees. The graduate in medicine is not necessarily a physician, any more than the M.C. is a surgeon, or the B.C.L. or LL.D. is an attorney or a barrister. To entitle him to the designation of a physician, a surgeon, or an apothecary, the practitioner must possess the diploma or license of one or other of the Colleges or Societies authorised by charter or other statutory endowment to confer the right to practise in either or in all of those capacities. Under the old *régime*, before the Medical Act had still further complicated medical titles, this was clearly recognised; and the now comparatively obsolete race of Oxford and Cambridge M.D.s were not recognised as physicians until they had obtained a diploma or license from a College of Physicians, neither were they entitled to hold appointments in the London hospitals without this latter qualification. If this were more generally understood, it might possibly moderate the self-assertion of certain mushroom graduates in medicine, whose graduation, be it known, is comprehended in a journey across the border, payment of state-fees and stamp-duties, with an examination thrown in, to save appearances. As one of your correspondents quaintly puts it, "A man may be a fool and yet have a title"; or, as Burns has it,

> "The rank is but the guinea stamp,
> The man's the gowd for a' that."

In the present anomalous and chaotic state of the whole question of medical titles, it is perhaps scarcely worth while to discuss or disparage each other's qualification. A wise man will choose the title which best suits his position and requirements, and leave his neighbours to the same, unmolested and unquestioned.

November 1874. I am, etc., A Physician.

Sir,—For a long time the question respecting the use of the title of Dr. has been discussed. It seems to me time that those who are desirous of being admitted to examination at some British University, should put their request into a definite form. Should we fail to obtain what we desire in England, I cannot too strongly second the proposition made by "Cosmopolitan". I am, etc.,

December 1874. A Country Practitioner.

Sir,—While a host of practitioners possessing the license of one or other of the Royal Colleges are craving for the M.D. degree, and loudly declaiming against the stringent University regulations which prevent their obtaining it, it seems a fitting opportunity for introducing a glaring injustice which weighs very heavily upon those whose only qualification is derived from an University: I refer to the rules relating to the appointment of physicians to many hospitals and dispensaries, which provide that those officers must be Licentiates or Members or Fellows of a Royal College of Physicians. Now, sir, can anything be more unjust to an University man? The M.D. degree is the highest qualification in medicine; and, if so, why should one who holds it be expected to add to it what is practically included in it, as the less is in the greater A Doctorate confers more than a license —it qualifies both for practising and for teaching. Many are content with the M.D. degree alone; among whom might be mentioned the author of one of the largest standard works on *The Practice of Medicine*, and another—lately deceased—who a few years ago was President of the British Medical Association. And yet two such eminent men as these are debarred from obtaining the post of physician to the greater part of the hospitals of the country! If the Universities, instead of relaxing their rules and allowing "years of grace", were proudly to hold their own before the entire community, they would be fulfilling more exactly their duty towards those who have the first claim on their own consideration—their own alumni. I am, etc., An University Man.

December 7th, 1874.

Sir,—Whilst I return my warmest thanks to those of your correspondents who have supported and corroborated my former letters, I feel that some reply is necessary to others who have entered upon the discussion in defence of British Universities.

The "cruelty, injustice, and unfairness" of British Universities are apparent as the day, in practically requiring and demanding that men of established reputation, British qualifications, position, and means, should *abandon* or lose practices which have cost nearly or over £1,000 to establish, to say nothing of five, ten, or fifteen years' assiduous toil, simply to comply with (at any rate, in their case) a perfectly unnecessary and vexatious residence-clause. The candidates in question would be simply ruined by it; and, adding to this loss some £200 or £300 more for expenses of residence, class-fees, graduation, etc., the cost of a degree would approach £1,200 to £1,500; and its money-value to most of us, in addition to the diplomas which we already possess, may at the outside, at the commencement of our short professional, be valued at £100 to £150; and when this short span is half run out, or say when we are forty-five to fifty years of age, and the hard battle and struggle have been endured for so many years without, the value is simply half, a third, or in many cases less. Very few men are foolish enough to purchase British degrees at this price; and the more so, as there is not the slightest protection in the use of the doctorate after all this sacrifice, and a position ruined, which is possibly never regained. And all for what? To put money into the pockets of Universities for knowledge which may be gained equally as well by private study. There is a limit to endurance, and a limit to all transactions when the prices asked exceed by ten to twenty or thirty times the value of the commodity offered; nor can University degrees be exceptions to all other things which have a pecuniary value. One seat of learning must be as good as another; and, when the regular curriculum has been passed through, lectures and practice attended for three or four years, it is beyond the reasonable requirement of human nature to ask men of forty or fifty years of age to attend lectures and practice again, and take their seats upon benches with first year's men and youths of eighteen or twenty. Herein are the "cruelty, injustice, and unfairness"; and it seems to me that British Universities have agreed to annihilate or ruin the general registered medical practitioners of this kingdom. Learning alone should be the sole requirement to the registered practitioner of ten or fifteen years' standing, and anything beyond this must be injustice to a large section of the profession. I am, etc., Cosmopolitan.

Sir,—Several elderly members of our profession who have repaired to Colleges of Physicians and undergone therein a form of baptism for them of riper years, seem to have returned dubious or oblivious of the new name they have acquired. An ingenious correspondent advises them to assume the title of Doctor of Physic, and to subscribe themselves Ph.D. Would not Pd. be more appropriate and more suggestive of the quiet manner in which the degree had been obtained, and also afford the public a guarantee that their faith and morals had never been contaminated by an University education? I am, etc.,

December 1874. An Old Practitioner.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Gazette, The Western Daily Press; The Manchester Guardian: The Ulster Advertiser; The Sussex Coast Mercury; The Broad Arrow; The Surrey Advertiser; The Bedale and Northallerton Times; The Hackney Express; The Liverpool Porcupine; The Scotsman; The Liverpool Mercury; The Glasgow Herald; The Stroud News and Gloucestershire Advertiser; The Bradford Observer; The Morpeth Herald; The Portsmouth Times; The Western Daily Press; The York Herald; The Sheffield Evening Star; The Brighton Guardian; The Sussex Daily News; The Wrexham Advertiser; The Glasgow Herald; The Sussex Coast News; The Finsbury Conservative; The Berkshire Chronicle.; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Hughes Bennett, Nice; Inspector-General Maclean, C.B., Southampton; Dr. J. Matthews Duncan, Edinburgh; Dr. George Johnson, London: Dr. W. Fairlie Clarke, London; Dr. Finlayson, Glasgow; Dr. Joseph Bell, Edinburgh; Mr. Hall Redwood, Rhymney; Mr. Annandale, Edinburgh; Dr. E. A. Parkes. Netley; Mr. Eyton Jones, Wrexham; Dr. Magnan, Paris; Dr. Edis, London; Our Paris Correspondent; Dr. Williams, Liverpool; Mr. W. Adams, London; Dr. C. Harrison, Lincoln; Dr. Sansom, London; An Associate of Twenty-five Years' Standing; G. S. M.; Mr. W. Hoar, Maidstone; Dr. Yeld, Sunderland; Mr. R. L. Peacock, Lincoln; Mr. Stephen Clogg, East Looe; Dr. Hegewald, Meiningen; Dr. Sinclair, Dublin; Sir Dominic Corrigan, Dublin; Dr. Lyons, Dublin; Dr. Cruise, Dublin; Rev. Dr. Haughton, Dublin; Mr. J. D. Williams, Liverpool; Dr. Hamilton, London; Dr. J. Milner Fothergill, London; Mr. T. Holmes, London; Mr. Eastes, London; Dr. McKendrick, Edinburgh; Our Dublin Correspondent; Mr. Nimrod Walter, London; M.D.; Dr. Thursfield, Bridgnorth; Dr. Partridge, Stroud; Mr. J. H. Galton, London; Dr. James Gardner, Box; Dr. Inman, Clifton; Sir John Rose Cormack, Paris; M.D.Ed.; The Secretary of Apothecaries' Hall; The Registrar-General of England; The Registrar-General of Ireland; Mr. Wanklyn, London; The Registrar of the Medical Society of London; Dr. Wilks, London; Dr. A. Fleming, Birmingham; Our Edinburgh Correspondent; Mr. T. M. Stone, London; Mr. Hugh Morris, South Petherton; Dr. Williams, Norwich; Mr. Gibbes, Plymouth; Dr. Clay, Plymouth; etc.

BOOKS, etc., RECEIVED.

Cassell's Family Magazine. Part I. Cassell, Petter, and Galpin: London. Paris, and New York.

Practical Treatise on the Diseases of Women. By T. G. Thomas, M.D. Philadelphia: H. C. Lea. 1874.

Introductory Address delivered at St. George's Hospital, October 1874. By W. Howship Dickinson. London: Longmans, Green, and Co. 1874.

The Sixth Annual Report of the Sanitary Commissioner of the North-Western Provinces for 1873. Allahabad; 1874.

Philosophy of Voice; showing the right and wrong action of Voice in Speech and Song. By Charles Lunn. London: Baillière, Tindall, and Cox. Paris: Baillière. Madrid: C. Bailly-Baillière. 1874.

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